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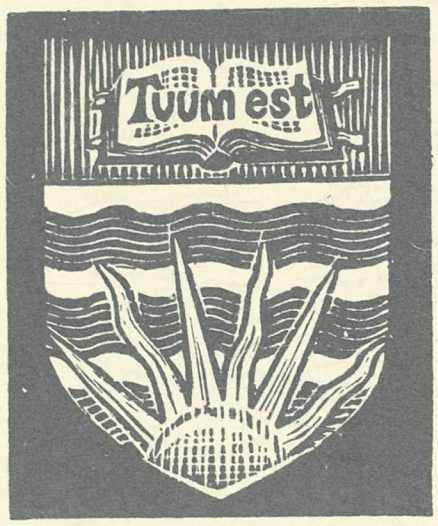

THE UNIVERSITY OF
BRITISH COLUMBIA

TRANSACTIONS

OF

THE CANADIAN INSTITUTE

SESSION 1892-93.

NOTES

ARCHÆOLOGICAL, INDUSTRIAL AND SOCIOLOGICAL,

ON THE

WESTERN DÉNÉS

WITH AN ETHNOGRAPHICAL SKETCH OF THE SAME

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Read 4th November, 1893.

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INTRODUCTION.

"Archæological" is rather inappropriate in connection with the present monograph, whose scope embraces nothing archæan or really ancient. The prehistoric Dénés are the Dénés of but yesterday. For, what are the one hundred years which have elapsed since the discovery of their country compared with the twenty or more centuries which separate us from the famous civilizations of ancient Egypt and Assyria? Yet, to check possibly too sanguine expectations from such archæologists as may happen to read these lines, I hasten to declare that it is perhaps more easy to present the lover of technological lore with graphic illustrations of the arts and industries which flourished among the subjects of the Pharaohs and the Assyrian monarchs, than to thoroughly illustrate from actual specimens the *ensemble* of the arms, working implements, household utensils and ceremonial paraphernalia, which should concur in reconstructing the peculiar mode of life pursued by the primitive Dénés. The original Egyptians and Assyrians have left us, besides authentic records of their own doings on imperishable material what promises to prove well nigh unlimited stores of practical illustrations of their past sociology in their tombs, their temples and other public monuments. So that the antiquarian's task is greatly facilitated by the abundance of the material at his command. Furthermore, where the hieroglyphic and cuneiform chronicles fail to clear up difficulties of interpretation or to enlighten him on the particular use of ancient implements, he has only to delve into Herodotus and other historians for the desired light.

Not so, however, with regard to the prehistoric Dénés. As I have elsewhere demonstrated,* that family of American aborigines, and more especially the Carrier tribe to which prominence will be given in the following pages, is characterized by a wonderful power of imitation and self-adaptation which prompted it, upon the advent of the whites, to discard most of its native customs, indigenous weapons and working implements. As a natural consequence, many of the latter are now in a fair way towards complete obliteration. Moreover, the nation's historians, I mean the old men who witnessed the manufacture and use of some archæological articles the duplicates of which have caused speculations from more than one antiquarian, are fast disappearing from

* "Are the Carrier Sociology and Mythology Indigenous or Exotic?" Trans. Roy. Soc. Canada, Section II. 1892.

the scene of this world. So that the sooner the Déné technology is brought to light, the better it will be in the interest of science.

Indeed, should any value whatever be attached to the present monograph, I feel quite certain that it will be entirely on account of its opportuneness. Undertaken twenty-five years ago, it could probably have been made more exhaustive. After the lapse of an equal space of time, its usefulness as a contribution to archæological knowledge would be problematical. I am at present the possessor of the only remaining specimens of some objects illustrative of the past Carrier sociology, and my familiarity with the language and original customs of the Indians to whose spiritual wants I minister, might not be enjoyed by a successor among them until time and circumstances deprive its use of much of its value.

These considerations, corroborated by the requests of scientists whose advice I have not the right to disregard, have emboldened me to attempt a description of such technological objects as can be illustrated from specimens in my possession or which are still in common use among the Western Dénés. The number of these, as will soon appear, is somewhat limited, and therefore my task cannot be very arduous. I only regret that my mineralogical shortcomings render an exact description of the material used in the fabrication of stone implements in a few cases impossible. For the identification of such rocks as are adequately described, I am under obligation to Dr. G. M. Dawson, Assistant Director of the Geological Survey of Canada, Ottawa.

As technology is the prime object of this monograph, the industries of the Western Dénés will be mentioned in so far only as may be necessary for the clear understanding of the nature and use of the objects therein described. Which statement should not convey the idea that I intend to make light of their claims to importance in an ethnological contribution. With a little reflection, it will become apparent that all human industries need material aids or means to manifest themselves, and their results must also take a concrete form. Now, these palpable data, be they the products of human ingenuity or the instruments employed in their development, are *per se* technological items, and by reviewing the latter, one cannot help treating of the former. Therefore I simply mean to say that the archæological, rather than the industrial, plan will be adopted in the following pages. In other words, our divisions shall be based, not on the industries of the Western Dénés, but, as far as practical, on the material of the weapons, tools, utensils, fishing devices and other implements under consideration.

As for the third, or sociological scope of this paper, I think that our title will be justified not only by numerous transient mentions of native customs and practices, but more especially by extended descriptions of the Aborigines' usages and superstitions in connection with fishing and trapping, their domestic economy as regards diet and remedies, their ceremonial dress, their habitations, etc. However, for more systematic information concerning the Déné sociology, the reader must be referred to another paper published some years ago under the title of "The Western Dénés; their Manners and Customs." *

Mythology may be regarded as a mirror wherein the psychological ideas and the particular social institutions and mode of life of a people are faithfully reflected. Therefore I have not deemed it inconsistent with the nature of my subject to intersect the following pages with a few short legends or traditions, especially when these may prove a help towards the formation of a more correct idea of the objects hereafter described.

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* Proceedings Can. Inst., vol. vii., p. 109, *et seq.*

CHAPTER I.

ETHNOLOGICAL SKETCH.—THE NAME "DÉNÉ."

For the benefit of such of my readers as may not have seen my former essays, I must repeat that by Dénés I mean that large family of American Aborigines commonly known under the names of Tinné, Tinneh, Tenni (Bompas), Tenne (Kennicot) and Athapaskans. As I have already pointed out elsewhere, all of these appellations are inappropriate. For more reasons than one, they should, in my estimation, be discarded in favour of "Déné." Neither Tinné nor Tinneh have any meaning in the dialect of the many tribes into which that extensive stock is divided. The ethnologists who are responsible for these nicknames gathered them from the desinence of several tribal names probably badly pronounced, and certainly misspelt, by the earliest *voyageurs* or traders who made mention of these Aborigines. The verbal suffix *'Tinne*, or *'Tenne*, is evidently the term they aimed at rendering. Now to the native ear the difference between T and 'T is infinitely greater than is with us that which exists between such letters as W and G, since these are commutable in the Aryan languages,* while the former are not in the Déné dialects. Thus, in Carrier, *ta* means "lip," and *'ta* "feather;" *to* means "up," and *'to* "nest;" *tis* stands for "younger sister," and *'tis* for "coals;" *taz* is the root for "heavy," and *'taz* signifies "backward;" *nəstaih* is equivalent to "I dance," while *'nəs'taih* means "I ripen." These contrasts could be multiplied almost *ad infinitum*.

Furthermore, 'Tinne, being a suffix, cannot stand without its verbal support. Thie would-be noun is composed of the root of the verb *kwos'ten* (or *kwos'tin*, etc., according to the dialect) which means "I inhabit," and the personal plural particle *ne* (or *ni*) resulting in the verbal noun *kwo'tenne* (or *kwo'tinni*, etc.) "inhabitants," which when suffixed to a name of river is contracted into *'tenne*, etc., as in *Naz-Koh-'tenne*, *Tsiɂ-Koh-'tinni*. Thus this pretended word corresponds in every particular—save that in Déné it is a verbal not substantive, affix—to the final *-enses* of Lugdunenses, Massilienses, Carthaginienses, Colossenses, etc. Now who ever dreamt of denominating by that final the latin speaking peoples? Who would, for instance, call *Ens* the French nation

* As is evident from the conversion of William into Gulielmus, Guglielmo, Guillermo, Guilherme and Guillaume; of War into Guerre and Guerra, etc.; of Warrant into Garantir, etc.

because it designates as Parisi*ens* the inhabitants of Paris; as Londoni*ens* those of London, etc.? Yet the identity of the two cases is so evident that I need only translate the above, and say London-hwo'tenne, Palî-hwo'tenne, to bring it home to the dullest intellect. As with the *-enses* and the *-ens* of the Italic tongues, so it is with the *'tenne* of the Déné idioms; it never applies but to names of places or at least of ethnographic divisions. Another point of similarity is that it varies with the dialects, being *'tenne* in Carrier, *'tinni* in TsiɊKoh'tin, *'qenne* in Tsé'kéhne, etc.

Lastly the correct pronunciation of these word-endings requires a lingual explosion which cannot be obtained except by those already initiated into the mysteries of the Déné phonetics. Hence the absurdity of designating a whole nation by an accidental suffix, impossible of pronunciation to the great majority of the readers, which is no word of itself and changes according to the dialect of some twenty or more different tribes.

Another name no less widely used to denominate the Déné stock, and for which Gallatin is said to be responsible, is "Athapaskan." Now fancy the propriety of calling the whole British, not merely English, race, say Bristolians or Manchesterians! The Bureau of Ethnology of the Smithsonian Institution which has adopted this name in its official publications has to confess that "it has been objected to by a number of missionaries—students of various dialects of this family in the North-West—but," it is added, "priority demanded that Gallatin's name should be retained."* Methinks, however, that time cannot of itself convert a wrong into a right.

Rev. E. Petitot replaces either vocable by Déné-Dindjié, thereby "uniting in one compound word the southermost tribe, the Chippewayan or Déné, with the northermost, the Loucheux which calls itself Dindjié."† This name, which is undoubtedly a vast improvement on any of the above mentioned, and has the merit of containing two genuine Indian words, correctly spelt, has perhaps the disadvantage of unwittingly contracting in the mind of the reader the area covered by the nation thereby designated. The Chippewayans are *not* the most southerly branch of the family not only on the North American continent, but even within British America. The TsiɊKoh'tin and the Carriers inhabit a stretch of land several degrees of latitude more to the south and are nevertheless territorially connected, without any intervening gap, with all the North-

* Bibliography of the Athapaskan Languages, by J. C. Pilling, p. v.; Washington, 1892.

† *Monographie des Déné-Dindjié*, p. xix.; Paris, Leroux, 1876.

ern Déné tribes. Therefore, on his own basis of word formation, the abbé Petitot should call the whole race Tɔni-Dindjié,* not Déné-Dindjié.

But we should not overlook the numerous offshoots it has spread out through the Western and Southern States of the American Union, and whose term for "man," and consequently for themselves considered as aborigines, is practically identical with "Déné."† Why then should we not call the whole stock *Déné*, after the native name of the most central—taking into consideration the southern scattered tribes—and one of the most populous branches thereof?‡ We could perhaps find a precedent for this in the names of such European peoples as the Italian, the French and even the English, which came to be given the entire nation after they had long represented one of the most important of its original tribes, the Itali, the Franks and the Angles or Angli.

Despite their minuteness, the foregoing remarks have been deemed necessary since their substance, as embodied in a foot-note to a former paper by the writer does not appear to have received the attention he cannot help thinking it deserved at the hands of Ethnologists. Even the few who have noticed it now seem to labour under the impression that the Dénés are a branch of the Athapaskan family lately made known to the scientific world!§ Such is the force of habit! Others suppose that Tinne and Déné are the same word under two different dialectical forms.‖

DISTRIBUTION OF THE DÉNÉS.

No other aboriginal stock in North America, perhaps not even excepting the Algonquian, covers so great an extent of territory as the Déné. The British Isles, France and Spain, Italy and any two or three of the minor European commonwealths taken together would hardly represent the area of the region occupied by that large family. And yet it is no exaggeration to say that few American races are less known than the Northern Dénés who, in point of territory, constitute the main bulk

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* *Tɔni* is the Tsiɳkoh'tin word for "man."

† It should be remembered in this connection that in all the Déné dialects the vowels have almost no linguistic importance whatever, the quintessence of the words being condensed in the initial consonants of each syllable. Also, it may be worth noting here that T and D, P and B, G and K, etc., are commutable even within each separate dialect.

‡ The aboriginal race of the Alaskan littoral is called Tlingit after the word it uses to say "man." Why should this not also be the case with the Déné family?

§ The Athapaskan Bibliography, *passim*, 1892.

‖ Language as a test of Mental Capacity, by H. Hale. Transact, R. S. C., p. 81, 1891.

of the whole nation. West of the Rocky Mountains, they are to be found from 51° 30′ of latitude to the borders of the Eskimo tribes, while on the east side of the same range they people the immense plains and forests which extend from the Northern Saskatchewan down almost to the delta of the Mackenzie River. From West to East they roam, undisputed masters of the soil, over the almost entire breadth of the American Continent, though a narrow strip of sea shore country separates their ancestral domain from the waters of the Pacific and those of the Atlantic. With that unimportant restriction, they might be said to occupy the immense stretch of land intervening between the two oceans!

In the words of Horatio Hale, this is, east of the Rocky Mountains "a dreary region of rocks and marshes, of shallow lakes and treacherous rivers, offering no attractions except such as the hunter finds in the numerous fur-bearing animals which roam over it and afford the native tribes a precarious subsistence. When this resource fails, they live on lichens which they gather from the rocks."* West of the Rockies, the country inhabited by them is rugged and heavily timbered, dotted with numerous deep lakes, and intersected by swift, torrential rivers. Their staple food is venison and salmon, according to the geographical position of their tribal grounds.

I have already given, in a volume of the "Proceedings of the Canadian Institute,"† the names and habitat of the northern tribes together with their approximative population. Let me only remark that in that list I classed the Beaver Indians as a separate tribe merely to conform to the long established custom of the traders and missionaries. But as in America, Ethnography is based chiefly, if not entirely, on Philology, I must explain that, from a philological standpoint, the Beavers (*Tsa'tenne* in Carrier) are genuine Tsé'kéhne. The idiomatic differences noticeable in the speech of these two artificial divisions are not any more pronounced than those which exist between the dialects of the Lower and the Upper Carriers. The reason the Beavers go by a distinctive name even among their congeners is that, being citizens of the plains, they cannot with propriety be called Tsé'kéhne or "Inhabitants of the Rocks" viz.: the Rocky Mountains.

For the perfect completeness of our aboriginal census, we should add to the above the Sarcees, a band of Tsé'kéhne who, upon a difference

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* Language as a test of Mental Capacity, p. 81; Transact. R. S. C. Vol. IX., Sec. II, 1891.

† The Western Dénés, etc., Proc. Can. Inst. Vol. VII., p. 113.

arising from a trivial offense,* separated, not very long ago from the main body of the Déné nation and were adopted by the Blackfeet, an Algonquian tribe, among whom they have since lived, while keeping their linguistic autonomy. They do not number more than 100 souls.

An ethnologic problem which is not yet, and will perhaps never be solved, is the question, How did it come to pass that large portions of the Déné nation detached themselves from the main stock and migrated south? When did this exodus occur? What was the route followed by the adventurous bands? The man is probably yet unborn who will satisfactorily answer these questions. It may be that the interested tribes have some legends or traditions which might throw some light on the subject; but I think this is hardly the case.† As far as the northern Dénés are concerned, they do not even suspect the existence of any kinsmen south of the Tsiqkoh'tins' territory. Two facts only seem pretty safely established, namely: the separation of the southern from the northern tribes happened centuries ago; and, moreover, the national movement resulting in the division of the nation into two different camps was from north to south. The first assertion is proven by the fact that "when the Spaniards first met them [the Navajos] in 1541, they were tillers of the soil, erected large granaries for their crops, irrigated their fields by artificial water-courses or *acequias*, and lived in substantial dwellings, partly underground."‡ In support of the second statement, I need only refer to a tradition current among some western tribes according to which "days were formerly exceedingly short; so short indeed that sewing the edge of a muskrat skin was all that one woman could do between sunrise and sunset." This unmistakably points to the arctic regions as places of previous residence.

Unknown to themselves, important branches of the great Déné tree thrive thousands of miles away from the parental stem. As far as I can ascertain from the latest and most reliable source§ available, they are, or were until recently:—

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* According to Mr. W. E. Traill, an H. B. Co's officer who has passed many years in close proximity to the Sarcees, this separation was caused by the following circumstances: A party of Tsé'kéhne were target shooting when a dog happened to take on the arrow planted in the ground as a target one of those liberties of which the canine gent is so fond. Thereupon the dog was shot by the possessor of the arrow, upon which that of the shooter was killed by the master of the original offender. Then followed numerous reprisals which could only be stopped by the voluntary departure of one band of related families which became the Sarcees.

† The above had been written for some time, when I read in Dr. Brinton's *American Race* that "the Navajos have no reminiscence of their ancestral home in the North."

‡ Brinton's *American Race*, p. 72, citing A. A. Bandelier "Indians of the Southwestern U. S."

§ 60th Annual Report Commissioner of Indian Affairs, 1891.

1. The Kwalhiokwas*, the Umkwas and the Totunies in Oregon. The Report of the Commissioner of Indian Affairs, for 1891 (Vol. II., p. 82), gives 78 as the number of the Umkwa population in the Grande Ronde Agency, with additional, though undetermined, numbers in the Siletz Agency. According to the same authority, the Totunies on Rogue River aggregate 47, while their congeners on the Siletz reserve cannot be numbered owing to their intermarriages with alien tribes.

2. The bands respectively called Hoousolton, Miscolt, Hostler, Matilden, Kentuck, Tishtangatang and Siaws in California†, but better known under the collective name of Hupa, from that of their common reservation in the Hupa Valley. They aggregate 492.

3. The Wailáki, likewise on the Pacific (Gatschet), numbers unknown.

4. The Navajos, in Arizona, the most populous and flourishing of all the Dené tribes, since they number, according to the latest and most accurate accounts, no less than 16,102 souls.‡

5. The various tribes of Apaches of which the following is a list showing their habitat and present population :—

(a)	The Oklahoma Apaches, in Oklahoma Territory	325
(b)	The Jicarilla Apaches, in Colorado.....	824
(c)	The Mescalero Apaches, in New Mexico	531
(d)	The White Mountain Apaches, in Arizona.....	130
(e)	The Coyotero Apaches, in Arizona.....	423
(f)	The San Carlos Apaches, in Arizona.....	831
(g)	The Tento§ Apaches, in Arizona.....	760
(h)	The Apaches of Camp Apache, in Arizona.....1,878	

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* Contradictory statements and apparently misapprehension as to the names and present status of the Southern Pacific Coast Dénés render an exact classification of them difficult. Thus Mr. Horatio Hale (*Language as a Test of Mental Capacity*, p. 85, 1891) speaks of the Kwalhiokwas as still lingering in one of the Pacific States, while Dr. A. S. Gatschet, in his work on "The Klamath Indians of Southern Oregon, Vol. I. p. 45," published one year *earlier*, states that they have disappeared together with the Tlatskanai, another Déné tribe. The same ethnographer mentions side by side (*op. cit.*) with the Hupas the Wailáki, reference to whom I find in no other author. The Totunies are called Totutunies by H. Hale (*op. cit.*), Tututenas by Dr. Brinton (*op. cit.*), Tootoonas by Mr. Morgan (*60th Ann. Rep.*), Tutatamy by P. de Lucy-Fossarien (*Extrait du Compte Rendu stènographique du Congrès international des sciences ethnographiques ....Etude de philologie ethnographique par M. P. de Lucy-Fossarien, Paris, 1881*).

† After Prof. O. Mason (*The Ray Collection from Hupa Reservation*, pp. 206, 207).

‡ According to Horatio Hale (*Language as a Test*, &c., p. 90), that tribe was erroneously thought to number in 1889 as many as 21,000 members.

§ These are not all pure Dénés, many being mixed with the neighboring tribes, or even altogether aliens as to the race to which they belong.

In Mexico, the number of Apaches is doubtful, since, according to Dr. D. G. Brinton, "although the Mexican census of 1880 puts the Mexican Apaches at 10,000, no such numbers can be located."* The same author then goes on to state on the strength of information emanating from Mr. Henshaw, of the Smithsonian Institution, that "the only Apache band now known to be in Mexico are the Janos or Janeros in Chihuahua, made up of Lipans and Mescaleros.†

6. The Lipans, in New Mexico, who have dwindled down to forty individuals. Their original home appears to have been on the Rio Grande.‡

It would not be pleasant to be represented as playing the role of the carping critic. Yet even the fear of appearing to merit this uncomplimentary epithet, cannot deter me from pointing out how utterly meagre and unreliable are the data possessed, even at the present time, by the best ethnographers relatively to the Déné stock. Despite the correct list of the Northern tribes given by the writer in the last volume of the "Proceedings Canadian Institute," I find that Dr. D. G. Brinton in his recent book "The American Race," published at Washington two years after the aforesaid classification had been printed in Toronto, omits no less than six Déné tribes of the great northern division. To show how utterly mixed ethnography appears to be when it is a question of locating the various Déné tribes, and thereby to excuse the details into which I find myself obliged to enter, I take the liberty of quoting the following sentences from the above mentioned work:—

"These [the Dénés] extend interruptedly from the Arctic Sea to the borders of Durango, in Mexico, and from Hudson Bay to the Pacific. . . The Loucheux have reached the mouth of the Mackenzie River, the Kuchin are along the Yukon, the Kenai on the Ocean about the peninsula that bears their name, while the Nehaunies, Sekanies and Takullies are among the mountains to the south. The Sarcees lived about the southern head waters of the Saskatchewan." §

Now, with all the deference due to such a veteran ethnographer as Dr. Brinton, truth bids me state that:—First, It is almost absolutely certain that no branch of the Déné family is stationed on the Arctic Sea, the whole coast of which is occupied by Eskimo tribes. Second, There

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* "The American Race," p. 69, Washington, 1891.

† *Ibid.*

‡ *The Karankawa Indians*, etc., by A. S. Gatschet; Cambridge, Mass., 1891.

§ The American Race, pp. 68, 69.

are no Dénés on the Hudson Bay any more than on the Pacific. The former is peopled on the north by the Eskimos and on the south by tribes of Algonquian parentage, while several alien races cover the whole northern coast of the latter, With, perhaps, a single insignificant exception.* Third, The Loucheux and the Kuchin are one and the same tribe under different names, the first being that originally applied to it by the French-Canadian voyageurs, while the second (which should read Ku-tchin or Ku-t'qin, the last syllable being *exploded* with the tongue and teeth) is more in honour among English-speaking ethnographers. The latter vocable is the exact equivalent of the Carrier "hwo'ten", the Tsé'kéhne "hwot'qen", the TsiqKoh'tin "kwo'tin", all of which, as we have already seen, signify "Inhabitants." Fourth, The Kenai spoken of by Dr. Brinton are probably the K'naia-Kho-tana of Dr. Powell and both authors may be right in placing their habitat on the Pacific Ocean. Yet it must be admitted that this would be more evident, were not Dr. Brinton to transport it, ten pages further on, among the immense plains claimed by the Blackfeet as their ancestral home.† 5th, The would-be Nehaunees, Sekaunies and Takullies call themselves Nah'ane, Tsé'kéhne and TaKeqne respectively. 6th, The Sarcees *now live* about the southern head waters of the Saskatchewan, but formerly *lived* some degrees further north among the Beaver Indians with whom they are congenerous, even as a subdivision of the Tsé'kéhne tribe.

Nothing but a desire of serving the interests of ethnological science has prompted the above remarks. That I can prove all I advance will not be doubted by those who are cognizant of the opportunities I enjoy of ascertaining the real ethnologic status of the tribes by which I am surrounded or of those which are so closely related by blood and language with that among which I now live. The inaccuracies which they are aimed at correcting must also be my excuse for venturing to present below the list, as complete as I can make it, of all the Déné tribes. A very few of the southern tribes may be unwittingly omitted; but I would rather sin by omission than by exaggeration. All the northern tribes

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* This is the *K'naia-Kho-tana* who are now said to reach the coast on Cook's Inlet (Dr. Powell's "Indian Linguistic Families," 7th Ann. Rep. Bur. Ethnol.). But the fact that this learned ethnographer associates thereto the "Ahthena" of Copper River renders the identification of that tribe somewhat doubtful, inasmuch as the "Ahtena," unless they are misnamed, must be exogenous to the Déné stock, since that very name means in Déné "foreigners," and is used by our aborigines to designate all Indians of non-Déné stock. K'naia-Kho-tana, however, seems to have the right linguistic ring about it, and apparently refers to the "people of the river K'naia," whatever this last noun may mean.

† "Their [the Blackfeet] bands include the Blood *or K'nai* and the Piegan Indians" p. 79. The italics are mine.

are given without an exception, though I do not detail the ramifications or subdivisions of the Loucheux, and therefore omit any mention of the Kenai or K'naia-Kho-tana. The figures represent the population of each tribal division. In the case of the southern tribes they are compiled from the latest official accounts available. For the north-eastern divisions they are those of Rev. E. Petitot corrected down to date by Mr. Rod. Macfarlane, an H. B. Co's officer who has passed over 40 years of his life among the Indians he enumerates. I am myself responsible for the figures representing the numbers of the north-western tribes.

CLASSIFICATION OF THE DÉNÉ TRIBES.

NORTHERN DÉNÉS.

	About
Loucheux: Lower Mackenzie River and Alaska	4,400
Hares: Mackenzie, Anderson and MacFarlane Rivers	600
Bad-People: Old Fort Halkett	200
Slaves: west of Great Slave Lake and McKenzie River	1,000
Dog-Ribs: between Great Slave Lake and Great Bear Lake	1,000
Yellow-Knives: north-east of Great Slave Lake	500
Cariboo-Eaters: east of Lake Athabaska	1,200
Chippewayans: Lake Athabaska, etc.	3,000
Tsé'kéhne: both sides of Rocky Mountains	500
Beavers: south side of Peace River	700
Sarcees: east of Rocky Mountains, 51° lat. north and south	100
Nah'ane: Stickeen River and east	700
Carriers: Stuart's Lake, north and south	1,600
TsiqKoh'tin: Chilcotin River	460

SOUTHERN DÉNÉS.

Umkwas, Totunies and (?) Kwalhiokwas: Oregon	150
Hupas: Hupa Valley, California	492
Wailákis: Northern California	(?) 130
Navajos: Arizona	16,102
Apaches: Oklahoma, Colorado, New Mexico and Arizona	5,702
Lipans: New Mexico	40
Total of the Northern Tribes	15,960
Total of the Southern Tribes*	22,616
Total of the whole nation*	38,576

* Exclusive of the problematic Kwalhiokwas, the Umkwas of the Siletz Agency, the Mexican Apaches, or any such bands as are not controlled, even remotely, by the office of the U. S. Commissioner Indian Affairs.

A tribe of Atnas, Adenas, Atnahs or Ahthenas, whose habitat would be the extreme north-west of this continent, is occasionally mentioned in ethnographic literature as belonging to the great Déné family. Pilling gives it a place in his "Bibliography of the Athapaskan Languages." There must be here a mistake either of name or of identification. "Atna," etc., is a Déné word which means "foreigner, heterogener," and is used to qualify *all* aboriginal races which are *not* Déné. Either then the Atnas of the travellers and ethnographers are not Déné, or if they belong to that race they must be misnamed.

Main Characteristics of the Déné Race.

If there is in the broad world a family of human beings which, though a mere subdivision of a larger group of the genus *homo*, plainly demonstrates, through the diversity of its many branches, the fallibility as ethnic criteria of all but one of the various sciences which go to make up Ethnology, this is most certainly the Déné family. Savants now-a-days seem too prone to study man as they would a mere animal. Perhaps they overlook too easily the fact that he is a rational being. If a part of the animal kingdom, he is there a king without peer; and to judge him after the same standard as we do the brutes of creation should be considered unscientific. We hear constantly of bodily measurements, of anthropometry and craniology. Now, without entering into the technicalities of these sciences, let us apply their test, I do not say to those portions of the Déné people which live thousands of miles apart, but to a few coterminous tribes of that nation.

On the Western slope of the Rocky Mountains live side by side three tribes, the Tsé-'kéhne, the Carriers and the Tsiɻ-Koh-'tin, which may furnish us with convenient material to experiment upon.

The Tsé'kéhne are slender and bony, in stature rather below the average, with a narrow forehead, hollow cheeks, prominent cheek bones, small eyes deeply sunk in their orbit, the upper lip very thin, and the lower somewhat protruding, the chin very small and the nose straight. Go and inspect them, and perhaps out of every ten men, five who have long been fathers will appear to you like mere children. I have never seen but one fat person among them and none that was bald.

Now the Carriers are tall and stout without, as a rule, being too corpulent. The men, especially, average 1^{m}, 660^{mm} in height. Their forehead is much broader than that of the Tsé'kéhne, and less receding than is usual with American aborigines. Their face is full, with a nose generally aquiline and in every case better formed than that of their heterogeneous neighbours; their lips are thicker and their chin more prominent than

those of the Tsé'kéhne. Their eyes are also much larger and of a very deep black. Baldness, though rare, is sometimes noticed among them, while a few are literally obese. I am very much mistaken if two crania, one of an individual of each of these tribes, would not be pronounced by a craniologist as belonging to representatives of diametrically different races.

The Tsiqkoh'tin, on the other hand, are short in stature, broad faced and broad shouldered, with prominent cheek bones, heavy jaws and a nose which is not uncommonly thick and flattish. They may be said to have some physical resemblance to the Chinese. This description applies also to the Babines, who might be considered as a branch of the Carriers.

The only points in common between the three tribes are the dark eyes, the black, coarse and straight hair and the small hands and feet. Large hands and feet, however, are occasionally met with among Carrier men.* I do not speak of the complexion, because it varies even in the same tribe according to the occupation and food of the natives. A hunter will never return from a tour of two or three months in the woods without being considerably bronzed, while his fellow tribesman who has remained at home, without being as white as a European, will yet be fairer complexioned than most individuals of the Salish race of the South. Even in the matter of beard, a notable difference is observable, inasmuch as full beards, dark and coarse, heavy with hardly any shaving, are by no means rare among the Babine sub-tribe, while the rest of the Western Dénés are remarkable for the scarcity, or sometimes the total absence, of facial hair.

If we now consider the Déné nation from a psychological standpoint, the contrast between its divers branches will be still more startling. The Northern Dénés are generally pusillanimous, timid and cowardly. Now, can this be said of the Apaches? The Northern Dénés are moreover lazy, without skill or any artistic disposition. Is it so with the Navajos? Even among our Carriers, the proudest and most progressive of all the Western tribes, hardly any summer passes off but some party runs home panic stricken, and why? They have heard, at some little distance, some "men of the woods" evidently animated by murderous designs, and have barely escaped with their lives. Thereupon great commotion and tumult in the camp. Immediately everybody is charitably warned not to venture alone in the forest, and after sunset every door is

* I have also seen several really fair-haired Carriers, a peculiarity which is so much the more remarkable as it certainly can not be ascribed to blood mixture with persons of Caucasian descent.

carefully locked against any possible intruder. Compare these puerile fears of the Carriers with the indomitable spirit, the warlike disposition of the "terrible Apache." Compare also the rude, unartistic implements, the primitive industries of the same tribes with the products of the Navajo ingenuity, their celebrated blankets and exquisite silverwork especially-and tell me if in this case psychology is a safe criterion of ethnologic certitude.

A noteworthy quality of the Northern Dénés, especially of such as have remained untouched by modern civilization is their great honesty. Among the Tsé'kéhne, a trader will sometimes go on a trapping expedition leaving his store unlocked, without fear of any of its contents going amiss. Meanwhile a native may call in his absence, help himself to as much powder and shot or any other item as he may need; but he will never fail to leave there an exact equivalent in furs. Now compare this naive honesty with the moral code in vogue among the Apaches. Read also what is said of the Lipans, another offshoot of the Déné stock: they "live in the Santa Rosa mountains from which they stroll about making inroads in the vicinity to steal horses and cattle."*

With regard to mental attainments and force of character, I have shown in a paper read before the Royal Society of Canada,† that all the north-western tribes, Nah'ane Carriers and TsiɊKoh'tin, which have come into contact with alien races have adopted the most prominent practices and customs of the latter. Such is, to a great extent, the case even as regards mythology. Nay more: they have gone as far as to borrow the language of their neighbours in connection with their traditional songs and ceremonies. On the other hand, many TsiɊKoh'tin and not a few Babines speak Shushwap or Kitikson, while not one full blood individual of the two latter stocks has acquired enough of the Déné languages to decently hold conversation through them. The Dénés think it a mark of enlightenment to imitate the alien races with which they have intercourse, while these show the little esteem they profess for them by calling them "stick savages."

Now hear what a competent authority says of the Dénés of North California: "Next after the Karoks, they are the finest race in all that region, and they even excel them in their statecraft, and in the singular influence, or perhaps brute force, which they exercise over the vicinal tribes. They are the Romans of North California in their valour and in their far-reaching dominions. They are the French in the extended

* The Karaukwa Indians, by A. S. Gatschet, p. 41; 1891.

† Are the Carrier Sociology and Mythology Indigenous, etc? Trans. R. S. C. Sec. II, 1892.

diffusion of their language. They hold in a state of semi-vassalage most of the tribes around them, exacting from them annual tribute in the shape of shell-money; and they compel all their tributaries to speak Hupá in communication with them. Although most of these tributaries had their own tongues originally, so vigorously were they put to school in the language of their masters, that most of their vocabularies were sapped and reduced to bald categories of names."*

The Northern Dénés, who are eminently gentle in disposition, have generally shown a remarkable receptiveness. And this explains how it is that, with few exceptions, they are all to-day practical Christians, and conform to the customs of the whites as much as their social status will permit. In opposition to this, we find that the Navajos and the Apaches still hold to their superstitious beliefs and ceremonies, and keep themselves aloof of any civilizing influence. This is so true that when, some years ago, an effort was made by the U. S. Commissioner of Indian Affairs to secure a tract of land close by the Cherokees' territory for the location of the Navajos, the former who, as is well known, have made great strides towards civilization, refused to entertain the proposition, "asserting that the Navajos were not civilized Indians."† I have never noticed any mention of real improvement in their midst since that time.

As for the Hupas, their agent stated ten years ago that they "are not to-day any more enlightened, advanced, progressive, industrious or better off in any way than they were when the Reservation was established, about twenty years ago."‡ That time has brought no change in their dispositions is made clear by the following words of their agent in his latest Report (1891): "They all cling to their own customs and laws as being far better than any others, and seem to look upon many of them as sacred. . . . Many of the Indians seem to look upon the attendance of their children [at school] as a favour to the teacher or the agent, and expect some reward for it."§ In strong contrast to the indifference for intellectual attainments manifested by the Hupas, let me refer the reader to what I said in a former essay‖ of the craving for knowledge evidenced by our Carriers, and the remarkable results it has produced even under the most untoward circumstances.

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* Contributions to North American Ethnology, vol. iii., p. 72.

† The Cherokee Nation of Indians, by Ch. C. Royce, Fifth Annual Report, Bureau of Ethnology, Washington, 1883-84.

‡ Indian Affairs Report, 1881, 6; *apud* O. E. Mason's The Ray Collection, p. 207.

§ Sixtieth Annual Report Commissioner Indian Affairs, 1891, vol. 1, p. 220.

‖ The Western Dénés; Proc. Can. Inst., vol. vii., p. 165.

Again, the folk-lore of the North-Western Dénés greatly differs from that of their immediate Eastern neighbours and congeners, while there is no point of affinity between that of either divisions and the mythology of the Navajos.

How is it then that tribes of aborigines occupying so widely separated territories and so utterly dissimilar from a psychological, technological, sociological and mythological standpoint can be classed under one single denomination as Dénés? The answer is in every mouth: this is owing to linguistic analogy. Language, therefore, is the *trait-d'union* which unites into one homogeneous body such apparently heterogeneous elements. Through it we are certain that the same blood flows in their veins, and that they are the children of a common father, whoever he may have been. If any stronger argument can be adduced in support of the paramount importance of Philology as an ethnological criterion, I am at a loss to discover what it can be.

Hence it will be seen that my initial remarks concerning that class of modern scientists who lay so much stress on the physical structure of man to the detriment of his special characteristic as a distinct genus, thinking and speaking, were not unwarranted. If even the *ensemble* of the peculiarities which differentiate him into a rational, social being cannot lawfully claim the first place in the ethnologist's estimation, *a fortiori* this cannot be granted to those features which he possesses in common with non-human animals. In the words of Horatio Hale, "the grand characteristic which distinguishes man from all mundane beings is articulate speech. It is language alone which entitles anthropology to its claim to be deemed a distinct department of science."* One needs not be a scientist to see the correctness of this view, and it is a long time since Quintilian said: "When the Creator distinguished us from the animals it was especially by the gift of language.... Reason is our portion, and seems to associate us with the immortals; but how weak would reason be without the faculty to express our thoughts by words, which faithfully interpret them! This the animals want, and this is worth more than the intelligence of which, we must say, they are absolutely deprived." †

I have not so far been fortunate enough to come across any vocabulary of a southern Déné dialect, and the only continuous Navajo texts I have ever seen are those of the "Mountain Chant" published by Dr. W.

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* Language as a Test of Mental Capacity, by H. Hale; Transact. R.S.C., Vol. IX., p. 77, 1891.

† Quintilian, translated by La Harpe, Dijon, 1820.

Matthews.* Now, clothing these texts with the orthography denotive of the peculiarly exploding and sibilant sounds, which I think they must receive to become correct renderings, I find side by side, with some terms proper to the tribe or borrowed from adjacent stocks, no less than seventy-two words which are easily recognizable here, at a distance of perhaps 2,000 miles from the nearest Navajo. To form a just idea of the proportion of genuine Déné with local or foreign words, it should be borne in mind that these texts are composed merely of a few words very often repeated.

DISTRIBUTION OF THE WESTERN DÉNÉS.

Now that we have made some acquaintance with the divisions and main traits of the Déné nation in general, we may particularize and furnish the reader with more precise ethnologic data concerning the tribes whose technology and industries we are about to review. These we have already named: they are the Tsiɬkoh'tin, The Carriers and the Tsé'kéhné. As some savants have done me the honour of asking for more detailed information on their ethnographic status than were contained in a former paper on the same, I shall now proceed to give their tribal subdivisions or septs, together with their aboriginal names, the habitat of the natives thereby determined and, as far as practicable, their present population, and the number of their villages.

West of the Rocky Mountains we have from south to north:—

The *Tsiɬkoh'tin*, who actually inhabit the Chilcotin valley and roam over the bunch grass covered plateaus that skirt it on either side, from the 50° to the 52° 30′ of latitude north. Their territory is bordered in the east by the Fraser River, and in the west by the Cascade Range of mountains. But not unfrequently a few bands manage to cross over and make inroads for hunting purposes into the territory of the Sishaɬ and other coast tribes. Of course the latter resent these encroachments upon their ancestral domains; but as hunting for peltries is not extensively practised by them, the harm done by the poachers is not very great.

It is perhaps worth remarking in this connection that the "Linguistic Map of British Columbia" prefixed to Dr. F. Boas' Report on the B. C. tribes for 1890† is somewhat inaccurate in that it gives the Tsiɬkoh'tin quite a tract of land on the east side of the Fraser which, as a matter of fact, is now and has been occupied from time immemorial by three villages of Shushwap Indians, viz.: Soda-Creek, Sugar-Cane and Alkali-

* Fifth Ann. Rep. Bureau of Ethnology, 1883-84.

† Sixth Report on the N. W. Tribes of Canada, London, 1890.

Lake. Nay more, until recently the TsiɬKoh'tin did not even extend as far as the Fraser. Some 25 years ago the bulk of the tribe inhabited Na'kûnt'ɬûn, a village on the lake of that name (52° 40′ lat. by 125° 5′ long.) close by the Bilqulas' territory, whence they migrated almost in a body to the more fertile lands they now occupy.*

From a sociological standpoint they might be divided into the quasi-sedentary and the nomadic TsiɬKoh'tin. The former dwell on the north banks of the TsiɬKoh, called by the whites Chilcotin River. They are divided into two groups, viz.: the *Tɬɒs-Koh-'tin* (people of the Splint River) with one village on that creek close by the Fraser, population about 75; and the *T'ɬâ-theñ-Koh-'tin* (people of the river that trails through the grass) who have two villages near the Chilcotin 35 and 45 miles respectively west of the Fraser. Total population 190. An independent band of some 35 individuals, an offshoot of the same sub-division, has established itself near the Fraser facing Fort Alexander.

All of these TsiɬKoh'tin have abandoned their original semi-subterranean huts to dwell in log houses covered with mud according to the fashion prevailing among the neighbouring whites. They also cultivate wheat and other cereals, peas and potatoes with moderate success.

The nomadic TsiɬKoh'tin are called by the whites "Stone TsiɬKoh'tin" by allusion to their favourite haunts, the rocky spurs of the Lillooet mountains and of the Cascade range where they live, largely on marmots. They have no fixed abode and except during the winter, they are constantly shifting from their southern to their northern borders, that is from the aforesaid mountains to the Chilcotin River, where they generally pass a few weeks of the fair season. I know of no more primitive people throughout the whole of British Columbia.

Apart from the above regular subdivisions their still remain at Na'kûnt'ɬûn, or in the proximity of that lake, a few straggling members of the same tribe.

In his late paper on "the Shushwap people of British Columbia," Dr. G. M. Dawson gives† after Mr. J. W. Mackay, Indian agent, an interesting account of a hostile excursion of TsiɬKoh'tin warriors into the country of

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* Were native testimony regarded as an insufficient proof of this, philology might still furnish us with corroborative evidence of unquestionable character. Thus the most remarkable feature of the present territory of the TsiɬKoh'tin tribe is its magnificent bunch grass (*Agropyrum* [*Triticum*] *repens* L.). Now they call it *Œnna-t'ɬâ*, or "grass of the foreigners," *i.e.*, the Shushwap. This particular species of grass is not met with north of the valley and bordering lowlands of the Chilcotin River.

† Notes on the Shushwap people of B. C.; Transact. R. S. C. Sec. II, p. 24, 1891.

the Shushwap. On the authority of that narrative, the would-be invader were pushed back by superior numbers into the Semilkameen valley where, by their prowess, they compelled their pursuers to come to term and make a treaty of peace from which intermarriages soon resulted. "These strangers, who are said to have come from the Chilcotin country are thus the earliest inhabitants of the Semilkameen valley of whom any account has been obtained."* Seven, out of thirteen words given by Mr. Mackay, as remnants of the original language of the invaders, are undoubtedly Tsiɣkoh'tin, and make it certain that the Semilkameen Shushwap are partly of Déné parentage.

Immediately north of the Tsiɣkoh'tin we find the Carriers or *Takhepne* the most important in numbers, most widespread and progressive of all the north-western Déné tribes. They extend as far north as the 56° of latitude and are coterminous with the coast tribes on the west and the Crees and Tsé'kéhne on the east. The Coast Range on the one side and the Rocky Mountains as far as 53° lat. on the other, separate them from their heterogeneous neighbours. North of the 53°, they are in immediate contact with the Tsé'kéhne.

The Carriers are semi-sedentary Indians. They have fixed homes in regularly organized villages from which they periodically scatter away in search of the fish and fur-bearing animals on which they subsist. From south to north, their tribal subdivisions are:—

1. The ʇthau'tenne (a contraction of ʇtha-koh-'tenne, people of the Fraser River). They now have but one village, Stella (the Cape) contiguous to the old Fort Alexander, formerly one of the most important of the H. B. Co's. posts in British Columbia, now abandoned. They were originally several hundreds: they are now almost extinct as a sept. Whiskey and loose morals owing to the vicinity of the whites are responsible for this result. They are co-terminous with the Shushwap in the south and the Tsiɣkoh'tin in the immediate west. I do not think that fifteen individuals of that sept now remain.

2. The *Naskú'tenne* (people of the river *Nas*). They are likewise greatly reduced in numbers, there not being actually more than 90 members of that sub-tribe, though they still inhabit two villages Quesnel and Black-Water.† The same causes, especially the former, as played havoc among the ʇthau'tenne, are slowly but surely working out the

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* *Ibid.* p. 25.

† The Black-Water or West River followed up by Sir. A. Mackenzie to reach the Pacific Coast.

ultimate destruction of the Nazku'tenne. Both villages inhabited by them are on the Fraser River.

3. Due west of the Black-Water village and ascending the river of that name to its source, we meet with a third subdivision of the Carriers, the *Na-tca-'tenne* (probably corrupted from *Nu-tcah-'tenne*, people down against the island). These people dwell in four small villages, Trout Lake, ʔus'kɔz,* Pe-ʔka-tcék,† and ʔka-tco.‡ The latter is composed of a mixed population of Déné and Belqula descent whose first white visitor was the writer, ten years ago. The Nu-cha-'tenne formerly had several other villages (Tsitsi, ʔrak, etc.), the sites of which are still discernible through small clearings in the forest. Their present total number may be a little over 135.

4. Immediately north of the Black-Water village, at the confluence of the NutcaKoh with the Fraser River, we have one village, Fort George or *ʔeitli*,§ the population of which forms one separate sept, the *Tano-'tenne* (people a little to the north). It numbers actually 130 persons. The Fort George Indians have on the east side of the Fraser very large and productive hunting grounds as far as, and comprising, the Rocky and Caribou mountains and spurs thereof. A village of the same sept, Tcinlak at the junction of the Na'kralKoh or Stuart's Lake River with the NuchaKoh had formerly a flourishing population which was, not very long ago, practically annihilated in one night by the TsiqKoh'tin.

5. Two villages on Fraser Lake furnish us with our fifth tribal subdivision of the Carriers. Their population goes under the common name of *Natlo'tenne* (contracted from *Natleh-hwo'tenne* or people of Natleh.‖) About 135 persons form the population of their two villages Natleh and Stella,** one at each end of the lake.

The aggregate of the above enumerated septs constitutes what I generally designate under the collective name of Lower Carriers. Though slight linguistic peculiarities give to each of them a real individuality, yet the dialect of all contains very important characteristics common to the whole aggregate which differentiate it from that of any of the septs or subtribes which remain to review.

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* "Half-ʔus," the name of a carp-like fish.

† "Wherewith one catches fat."

‡ "The Big-fattening."

§ "The Junction."

‖ "It (i.e., the salmon) comes back again."

** The Cape.

Under the name of Upper Carriers I include :—

6. The *Na-'kra-ztli-'tenne* or people of Na'kraztli* Stuart's Lake They inhabit two villages, Na'kraztli and Pintce† on the southern end, and on the middle of Stuart's Lake. They number 180 souls, and they are of all the Carriers those who have made the greatest strides towards civilization.

7. Immediately to the north-west, on the same lake and its tributaries, Lakes Tremblay, That'lah,‡ and Connolly, a second subdivision of the Upper Carriers, the seventh of the whole tribe, occupies four smal villages, two only of which are regularly organized with a chief and the usual native officers. These are Tha-tce,‖ and Sas-thût§ respectively at the confluence of Thatce river on Stuart's Lake and near Fort Connolly on the lake of that name. The others are 'Kəztce** formerly an important locality on Thatce river and Yə-ku-tce†† at the north-western extremity of Stuart's Lake. The original home of all these bands was at the end of that lake, as is manifest from their common name as a sept: *T'laz-'tenne*, people of the bottom or end of the lake. Their total population is not over 90.

Some nine or ten years ago, Drs. Tolmie and Dawson published conjointly a valuable ethnological map of this province,‡‡ which does not tally in every respect with my description of the northern limits of the Carriers' territory. The line of demarcation between the Carriers and the Tsé'kéhnes' hunting grounds passes, on that map, through the middle of Thatlah lake, giving the latter a large strip of land wkich I grant to the former. I must explain that the authors of that map thereby point to the *de jure* or original territory of the Carriers, while I sketch above the *de facto* or actual limits thereof. By right Bear's or Connolly lake and adjacent country belong to the Tsé'kéhne tribe; but, as a matter of fact, the village which is situated close to the H. B. Co's. fort is now the

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* For the etymology of this name, see "The Déné Languages," Trans. Can. Inst. 1889-90, p. 188.

† Confluence of the *Pin* river.

‡ "Bottom of the water," the equivalent of the French "Fond du Lac." The real native name of this lake is *Kə'-nə-tsu, lit*, "*burden-near-lake*."

‖ "The tail," (i.e., confluence in the lake) of the water.

§ "Black Bear bathing place."

** Confluence of the *'Kəz* river.

†† The confluence of the river *Yəkuzlli*, (the outlet of *Yəkə* lake).

‡‡ Appended to "Comparative Vocabularies of the Indian tribes of B. C.; Montreal, 1884.

rendezvous of representatives of three different tribes, namely: the Tsé'kéhne who periodically congregate there for trading purposes and have no permanent residence; the Carriers, a band of whom now inhabit the village and hunt in the vicinity of the lake with the consent of the former; and the ʒtnas or Kitiksons from the Skeena river who are considered as mere intruders and as such live there only on sufferance.

Both the Na'kraztli'tenne and the T'ɬaz'tenne receive from the Babines the name of 'Kutəne.

The following subdivisions might be designated under the collective name of Babines, since in language they are practically one, and the custom of wearing labrets which gave its distinctive name to one of them was common to both. They are :—

8. The *Nitu'tinni* (in Upper Carrier *Nato'tenne*) or Babines who inhabit the northern half of Babine lake in three villages and number actually some 310 souls.

9 The *Hwotsu'tinni* (in Upper Carrier *Hwotso'tenne*) or people of the river Hwotsutsən.* They are called *Akwilgét*, "well dressed," by the Kiliktons, their immediate neighbours of Tsimpsian parentage, and after them by the whites. They inhabit two villages, Tsé-tcah,† KéyəR-hwotqət,‡ and two smaller places now organizing, Tseɬ-'kaz-Kwoh,§ and Moricetown on the HwotsotsənKwoh or Buckley river and what is known in the country as the telegraph trail. All of these localities are within the northernmost extremity of these Indians' hunting grounds which extend from Français Lake up to the Skeena River. Several members of that sept are allied by blood with their alien neighbours, the Kitiksons. They number about 300.

The language of these different branches of the Carrier tribe, while remaining essentially the same, undergoes however marked variations corresponding to its ethnographical subdivisions. Upon that ground I have even sometimes asked myself whether distinct individuality as a tribe should not be granted to the Babines whose linguistic or even psychological peculiarities are so glaring that they cannot escape detection even by the most careless observer. Much of their dialect would indeed be "greek" to an ʒthau'ten visitor.

It is also but right to warn the reader that the three main divisions of the tribe into Lower Carriers, Upper Carriers and Babines, although

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* Almost equivalent to "Spider."

† Down against the Rock.

‡ Old Village.

§ River of the axe edge.

founded on language and geographical distribution, are not recognized by the Carriers themselves, who know of no other than the above enumerated minor subdivisions.

The Tsi[Koh'tin and Carriers have a well organized society composed of the hereditary "noblemen" who own the land, and the common people who hunt with and for them. They formerly had no local head-chiefs. Moreover, irrespective of the ethnographic divisions based on language and habitat, they are divided into several gentes the members of which believe themselves bound by ties of the strictest relationship. They were originally exogamous, and throughout the entire Carrier tribe matriarchate or mother-right is the law governing succession to titles and property.

Among the *Tsé-'kéh-ne*, or "People-on-the-Rocks" a simpler and more primitive social organization obtains. That tribe, through necessity as much as from natural inclination, is entirely nomadic. As salmon is unknown throughout their territory, these aborigines have to be almost constantly on the move after the moose, cariboo and other large animals on whose flesh they mainly subsist. Father-right is their national fundamental law, and the whole tribe is composed of bands slightly differing in language, and with no regular chiefs. In fact, their society such as it is, might almost be termed a perfect anarchy, were it not tha the advice of the oldest or most influential of each band is generally followed as far at least as regards hunting, travelling and camping.

Though each band has traditional hunting grounds, the limits of thes are but vaguely defined, which is not the case with those of the Carriers Furthermore, several members of one band will not unfrequently b found hunting unmolested on the land of another. Therefore no ver strict boundaries can be assigned to the following tribal subdivision which comprise all the Tsé'kéhne population within the political borde of British Columbia :—

1. The *Yû-tsû-t'qenne*, or "people down over there" (*i.e.*, in th direction of an expanse of water) are the band which from tim immemorial bartered out to the Carriers the axes and other primitiv implements of which due mention shall be made further on. They a so called by the rest of the tribe by allusion to their commercial relatio with the Carriers of Stuart's Lake. Their hunting grounds lie fro Salmon River * to MacLeod's Lake and thence to the Fraser, by 53° 3

2. The *Tsé-'kéh-ne-az*, or "little-people-on-the-rocks" roam over t

* There are so many Salmon rivers in the north of British Columbia that it may be necess to explain that the one here mentioned empties itself into the Fraser a little above Fort Geor

land which extends between the latter lake and the summit of the Rocky Mountains. They are often to be found hunting on the western slope of that range.

3. The *To-ta-t'qenne* ("people-a-little-down-the-river") inhabit the eastern slope and adjacent plains of the Rocky Mountains within British Columbia.

4. The *Tsa-t'qenne* (who call themselves *Tsa-huh*) or Beaver-people, roam over the large prairies contiguous to the Peace River, on the south side of that stream and east of the Rockies.

5. The *Tsé-'ta-ut'qenne* (the people against the Rocks) as hinted by their name, have their habitat chiefly at the base of the Rocky Mountains on the north side of the Peace River.

6. This is perhaps the proper place to mention the *Sarcees*,* who have been adopted by the Blackfeet Confederation, and actually live east of the Rocky Mountains by about 51° lat. north.

7. To the north of all the above sub-divisions, from the 56° to the north, we find the *Sas-chût-'qenne* or "people of the Black Bear" whose trading post was until last year Fort Connolly on the lake of that name.

8. Another band called *Otzan-ne* (people between or intermediary) claims the land which intervenes between the territory of the Saschut-'qenne and that of the Tsélohne on the west side of the Rocky Mountains.

9. Those *Tsé-loh-ne* (people of the end of the Rocks) live immediately north of the latter and their chief trading post is now B. L. O. (Bear-Lake-Outpost) on the Finlay River by 57° of latitude north. Their name is due to the fact that their habitat is an immense plain which is said to intersect the whole of the Rocky Mountains which are popularly believed not to extend any further.

The aggregate population of all these bands does not exceed 1,300.

The *Tsé'kèhne* are known to the Carriers under the name of *T'tat-'tenne* or "people of the beaver-dams," while the latter are responsible for the distinctive name of the Carriers—*Arepne*, "packers." The nickname *Ta-Kej-ne* by which this tribe sometimes calls itself † is of recent origin It has no meaning in its language to which it is exotic, and I cannot

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* Their aboriginal name as a sept is unknown to me. A century ago they had 35 tents with a population of 120. (History of Manitoba, p. 85).

† Indeed they even call thus all the races of Indians by opposition to the whites.

imagine whence it originated. It is the would-be *Tacullies* or *Takullies* of the ethnographers.*

The foregoing information will be found recapitulated in the following list showing the tribal subdivisions from south to north of the Tsilkoh'tin, the Carriers and the Tsé'kéhne.

TSILKOH'TIN TRIBE.

Stone Tsiɂkoh'tin ; immediately south of Chilcotin River.
Tɂɔskoh'tin ; ten miles north of the mouth of Chilcotin River.
T'ɂothcñkoh'tin ; north bank of Chilcotin River, 45 miles from its mouth.
Independent septs ; Fort Alexander and Nakûntl'ûn.

CARRIER TRIBE.

ɂthau'tenne ; Fort Alexander.
Nazku'tenne ; Quesnelle and mouth of Black Water River.
Nutca'tenne ; on Black Water and throughout its basin.
Tano'tenne ; Fort George.
Natlo'tenne ; Fraser Lake.
Na'kraztli'tenne ; Stuart's Lake.
T'ɂaz'tenne ; upper end of Stuart's Lake and tributaries.

BABINE SUBTRIBE.

Nétu'tinni ; Babine Lake.
Hwotsu'tinni ; Buckley River and Français Lake.

TSÉ'KÉHNE TRIBE.

Yûtsût'qenne ; from Salmon River to McLeod's Lake.
Tsé'kéhneaz ; from McLeod's Lakes to the Rocky Mountains.
Totat'qenne ; immediately east of Rocky Mountains.
Tsat'qenne (the Beavers); south side of Peace River.
Tsè'taut'qenne ; base of Rocky Mountains close by preceding.

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* The number of different orthographical readings of the names of the north-western Déné tribes is truly wonderful. Thus the Carriers (*Takɛɲe*, the "Porteurs" of the French Canadians) are called *Tahkali* and *Takully* by Anderson, *Tekeili*, by Dawson and *Takully*, *Tacully*, *Takulli* by others. The Tsé'kéhne are *Thé-kka-nè* to Petitot, *Thekenneh* to Kennicott, and *Sicany*, *Siccani*, or *Sikani* to others. I am ashamed to own that I have myself countenanced in former papers the wrong reading "Sèkanais" of my predecessors here.

Sarcees; immediately east of Rocky Mountains, 51° lat. north.

Saschût'qenne; Connolly Lake and north. West side Rocky Mountains.

Otzenne; north of preceding, same side of mountains.

Tsêlohne; north of preceding, same side of mountains.

To the above I should add the *Nah'ane** whose hunting grounds lie to the north of those of the Tsé'kéhne. But I am not familiar enough with their tribal divisions to state them with any degree of certainty, nor do I sufficiently possess their technology to speak authoritatively of it. It may however be broadly stated that from an archæological standpoint the Western Nah'ane may be classed as Carriers, while the Eastern Nah'ane are to all practical purposes regular Tsé'kéhne.

* The so-called *Nehawni* of Pilling, the Na"ane of Petitot, the Nahâwney of Kennicott, the *Nehawney* of Ross and the *Nahawnies* of others.

CHAPTER II.

PRELIMINARIES—PHILOLOGICAL.

Philology is not without bearing on Archæology. More than [illegible] former will prove a great help towards elucidating such problems as the relative age or history of the human products whose aggregate constitutes the *raison d' être* of the latter. Thus the necessaries of native life, those objects which are the most indispensable to savage man and whose appearance as technological items must therefore have been the earliest, are, as a rule, expressed in Déné by monosyllabic roots as *thû*, water; *k'on*, fire; *jo*, fish; *tsa*, beaver; *'kra*, arrow; *pij*, snare; *kuh*, [illegible] etc. Other objects or implements of more complex nature or less primeval import, or the use of which supposes higher steps in the industrial [illegible] are rendered by polysyllabic words. In the language of the Dénés the more primitive an object, philologically also the simpler its name. Implements of complicated structure or of recent introduction among the aborigines have almost invariably names of similarly composite [illegible]

[illegible] considerations have led me to give, either in the text or through [illegible] the aboriginal name of each item of native technology mentioned in the present monograph. As we shall presently see, some of these names admit of no literal translation; but when such translation is possible it shall accompany the Indian word. Unless otherwise noted, the words will be in the Carrier dialect.

In order that the reader may the more easily recognize the category to which the words etymologically belong, and thereby judge of the place the objects they represent occupy in the Déné technology, I deem it not inappropriate to reproduce here the following paragraphs from a former paper on the Déné languages.

"Considered in their material structure and etymology, the Déné roots may be divided into four classes. These are the primary roots which are monosyllabic as in Chinese. Such are *ya*, sky; *thû*, water; [illegible], black bear; etc. They are essentially nominative: they neither nor describe the object they designate; they merely distinguish it from another. I consider them as the remnants of the primitive Déné language, inasmuch as they are to be found with little or

no alteration in all the dialects of the family, whatever may be the distance intervening between the aborigines who speak them.*"

No etymology or other explanation than that of the text will be given of words belonging to this category, because they admit of none. Thus the context will indicate for instance that Rəl is a war club, that *we* is a kind of fish trap, etc., without any attempt being made at explaining the origin of either word, or at giving a more literal sense of them than that furnished by the translation, which would be impossible. They have no derivation, but on the contrary may serve as the compounding elements of other words of secondary import.

"The second category comprises roots of simple import which are genuine unsynthetical substantives though polysyllabic, generally dissyllabic, in form. To this category belong words as *təne*, man; *t'sèkhè*, woman; *pəñrən*, lake; etc. They possess, to a limited extent, the properties of the monosyllabic roots, being likewise merely determinative and oftentimes varying but little with the change of dialect."†

Here it may be added that even in these nouns there is generally one syllable which is more important and contains, as it were, the quintessence of the word. Thus it is with the *ne* of *təne*; the *t'sè* of *t'sèkhè*, the *pən* of *pəñrən*. In composite words, such syllables only are retained. So the Carriers will more commonly say *ne-əran* murderer, than *təne-əran*, while in such compounds as *ɲi-t'sè*, she-dog, and *pən-tco*, big lake, the weak or secondary syllable has also disappeared.

"The third class contains composite nouns formed, as a rule, by compounding, though sometimes by agglutinating, monosyllabic or dissyllabic roots. Such are *ne-na-pa-ra* (literally: man-eyes-edge-hair) eye lashes; *tape-té*, wild sheep horns; *mai-ré*, vegetable oil instead of *mai-ré*, literally, fruit-oil. These nouns being mere compounds of roots belonging to the two former categories have the same degree of relative immutableness with regard to the various dialects as the radicals which enter into their composition."‡

In like manner, implements designated by names of this category may be of as ancient origin as those denominated by words of the first.

Thus, *tsa-m-piɲ*, beaver snare, contains two ideas of simple import—the medial *m* being merely euphonical and demanded by the following *p*. That words of this class may not be confounded with terms of the preceding, their compounding roots will be separated by a hyphen.

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* The Déné Languages, etc. Transact Can. Inst. vol. I, 1889-90, p. 181.

† *Ibid.*

‡ *Ibid*, p. 182.

"The fourth and last class is made up of verbal nouns which, as their name indicates, are nothing else than verbs in the impersonal or personal moods employed to qualify objects of secondary import with the help sometimes of a radical noun, sometimes of a pronoun, and always of a prepositive particle prefixed to, or incorporated in, the verbal substantive. Of this description are the words *pe-yòn-ə'qəl* (lit. with-earth-one cleaves), plough; *u-'kwət-'səsta* (lit. it-on-one sits), seat; *ə'ten-pa-yəR* (lit. work-for-house) work-shop."*

Very few of the objects or implements designated by words of that class can be regarded as of really ancient origin.

As for the orthography followed in the present monograph for rendering aboriginal words, it is as follows :—

The vowels have the continental sounds. When accentuated, they undergo the same phonetic changes as French letters do when affected by similar accents. Thus *â*, *î*, *ô*, have the same sound as in French; *e* and *u* as in Italian; *é* is sounded as the *e* of "mets", *è* as that of the English "ten", while *ə* corresponds to the so-called French *e muet* in such words as *je*, *te*, *le*. *W* is always a consonant.

Subject to the following remarks, the consonants have also the continental sounds. *H* is strongly aspirated; *ñ* represents a nasal *n* followed by a common or sounding *n*; *ʃ* is a lingualo-sibilant which is obtained by the emission of a hissing sound on both sides of the tongue curved upwards previous to its striking the lingual letter; *r* is the result of uvular vibrations, and when immediately following a guttural (*g*, *k*, *kh*, 'k, or K) it is almost impreceptible to the ear; K, and R, are respectively *k* and *r* pronounced with a very guttural inflection; *q* nearly resembles *ty*, both letters being simultaneously sounded; *c* represents the English double consonant *sh*. The apostrophe (') prefixed to *k*, *t*, *q*, adds to the regular pronunciation of those letters the exploding sound peculiar to most Indian languages. *s̄* is intermediate between *s* and *c*.

Th, *kh*, are equivalent to t+h and k+h and are produced by a single emission of voice. T's and t'ɬ are "exploded" and their exact value cannot be realized otherwise than by hearing them pronounced by a competent person.

The hiatus is represented by a period in the upper part of the line (·).

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* *Ibid., ibid.*

WORKS AND IMPLEMENTS UNKNOWN AMONG THE WESTERN DÉNÉS.

Before attempting to detail what our aborigines have or had of archæological ware, it may not be amiss to enumerate what they do not have and apparently never had.

Throughout the whole extent of their territory, no mounds, enclosures, fortifications of a permanent character or any earthen works suggesting human agency are to be found, nor is their existence, past or present, even as much as suspected by any Carrier, Tsé'kéhne or Tsiqkoh'tin. In the same manner, pottery, clay implements, perforated stones, mortars, ceremonial gorgets, gouges, stone sledges and articles of shell either plain, carved or engraved, have to this day remained unknown among them. They did formerly, and do still occasionally, use stone pestles. But for the mortars common among natives of most heterogeneous stocks, they substitute a dressed skin spread on the ground whereon they pound dried salmon, salmon vertebræ, bones, etc.

Such sweeping assertions may astonish those readers who have already been informed by Dr. D. G. Brinton that among the Dénés "utensils were of wood, horn or stone, though the Takully women manufactured a coarse pottery and also spun and wove yarn from the hair of the mountain goat."* This statement is quite a surprise to me, inasmuch as I supposed it was a fact well known to Americanists that no pottery of any description existed among such north-western stocks of aborigines as the Déné, the Tsimpsian, the Haida, the Kwakwintl, the Tlinget and the Eskimo. As for the spinning of the hair of the mountain goat Dr. Brinton probably confounds the Carriers (his Takully) with the Pacific Coast tribes which did and occasionally do make good blankets out of that material.†

I have also mentioned the mortars among articles unknown to the original Dénés. Therefore I must call attention to a statement of A. Niblack in his valuable monograph on "The Coast Indians of Southern Alaska" wherein he says: "These [mortars] were by some people supposed to indicate that in early days these Indians ground maize *as did and do the hunting Indians of the interior*."‡ The italics are mine.

* The American Race, p. 71.

† A gentleman speaking *de visu* states that "yarn is spun from the wool of the mountain goat (not the mountain sheep or big-horn) and is woven into excellent blankets which are highly coloured and ornamented." (Notes by Mr. J. C. Callbreath in G. M. Dawson's "Notes on the Indian tribes of the Yukon District" etc., reprint, p. 6). But this statement applies to the Thathzn division of the Nah'ane, not the Carrier tribe.

‡ The Coast Indians, etc., in Ann. Rep. of the U. S. National Museum, p. 281; 1890.

These words, coming from an author who is generally so well informed, are at best perplexing. To whom does he allude in this reference to the maize growing huntsmen of the interior? Most people will answer that it must be to the Déné Indians who, in the latitude within which the subjects of his sketch are stationed, people the American Continent practically in its whole breadth. Of course, he cannot thereby refer to the Iroquois and the Hurons whose habitat is close to the Atlantic, not the Pacific coast. Now it is so well known that the Dénés were but recently innocent of the least attempt at cultivation that I cannot regard this extraordinary assertion as anything else than a slip of the pen.

A natural apathy, lack of artistic ambition or want of skill caused the Western Dénés to be practical, rather than æsthetic craftsmen. Where extra exertion was not absolutely necessary, it was very seldom bestowed upon any kind of work. Therefore most of the implements which we shall examine in the following chapters are exceedingly simple and sometimes even rude in appearance. For instance, the Déné, knowing by experience that a stone lashed, while in its natural state, to his fishing-net was doing as good service as the most elaborate sinker, never attempted to fashion it into any of the artistic shapes given similar implements by many other families of Aborigines. For this reason carved or even merely grooved sinkers are also to be classed among the industrial implements unknown to the Western Dénés.

A fact which will perhaps elicit incredulous comment is that not only our Aborigines' earliest acquaintance with tobacco, native or Nicotian, dates only from 1792 for the Tsé'kéhne and 1793 for the Carriers, but even the very act of smoking was unknown to them prior to those dates. As a consequence, pipes of any material or form are an adventitious

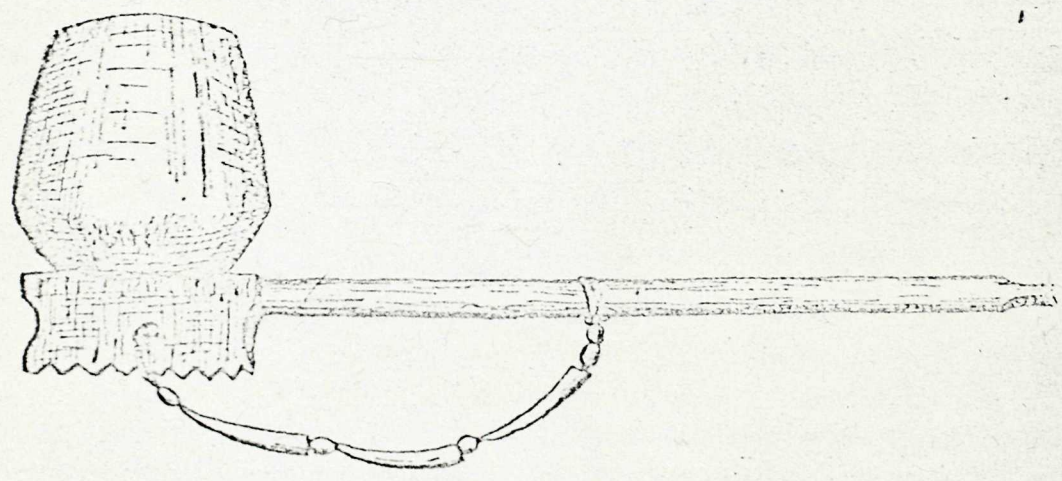

Fig. 1.

item amongst them. Fig. 1 represents the earliest known model of pipes of Déné manufacture. It consists of a stone bowl with a serrated base wherein a wooden stem has been inserted. Bowl and stem are connected

by means of a chain of dentalium shells alternating with coloured glass beads. A pipe strikingly similar in form, but *minus* the string of shells and beads, was also in use among the Shushwap Indians, the southern neighbours of the Western Dénés, as appears from a sketch in Dawson's "Notes on the Shushwap People of British Columbia."*

Against the above assertion as to the absence of smoking pipes among the primitive Dénés, it might be contended that the Tsiɣkoh'tin, who were more venturesome than the two other tribes, must have known through the Coast and Shushwap Indians, the species of wild tobacco which is said to have been cultivated by the natives of Queen Charlotte Islands, or gathered in its wild state by the Shushwap.† But to any person who is aware of the irresistible attraction all races of Aḅorigines feel towards the use of the soothing weed, whether genuine or counterfeit this hypothesis will appear altogether gratuitous. Albeit the tribal intercourse between the Tsiɣkoh'tin and the Carriers was formerly a rather rare occurrence and not always of the most friendly description, had smoking been in vogue among the former, the latter could not well have failed to notice in their neighbours a practice which is claimed to have appeared so strange to them at the time of their first meeting with the whites. Now both the Tsé'kéhne and the Carriers are positive that it was unknown to their ancestors previous to their encounter with *Mə-tsi-ra-nəɣoñ* ‡ or Sir Alex. McKenzie; and they still recount, with no lack of amusing details, first their stupefaction at beholding smoke issuing from men's mouths, and then their scorn for tobacco when they ascertained that it was not edible. §

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* Transact, R. S. C. p. 12, fig. 3; 1891.

† *Vidé:* "On the Haida Indians of Queen Charlotte Islands," by G. M. Dawson, p. 114 b, 115 b, Montreal, 1880; "Notes on the Shushwap People of B.C.," by G. M. Dawson, Trans. R.S.C. Sect. II., p. 23, 1891; "Descriptive Notes on Certain Implements," etc., by Al. Mackenzie, Trans. R.S.C., Sect. II., p. 55, 1891; "The Coast Indians of Southern Alaska," etc., by A. P. Niblack, p. 333, 1890.

‡ In Tsé'kéhne: "his hair is plentiful," perhaps by allusion to the wig or queue worn by Sir Alex. Mackenzie.

§ The derivation of the word *ətè'ka*, by which the Carriers designate tobacco, has long puzzled me. It must be either a borrowed word or a word formed by agglutination, as the name of the horse (*yezih-ɣi*, "elk-dog" or domestic elk). Now I have studied that word in the vocabulary of over twenty tribes, all contiguous, mediately or immediately, without being able to discover anything like an homonymous equivalent. On the other hand, the two parts of which it is composed, *ətè* and *'ka*, are genuine Carrier particles which, taken separately, are not without meaning, but to which no rational signification can be ascribed when joined together. Yet the names of all new objects in the Déné languages are either borrowed from foreign dialects, or more generally formed by compounding, that is by the juxtaposition of two or more names of objects already known. Thus, in Tsiɣkoh'tin the name of the tobacco is *tsɣ-yu*, which means "smoke-medicine." Altogether, the Carrier (and Tsé'kéhne) word designating that imported plant has the appearance of an old root of the second category, which is to me inexplicable.

Pipe Fig. 2 is of recent manufacture, and bears testimony to the TsiɂKoh'tin's faculty of imitation. It has been wrought out of an impure steatite or soap stone. Its stem is a wooden tube connected with the base of the bowl by a double string or chain of black beads. The stem of such pipes is more generally lengthened through the insertion of a perforated brass cartridge shell between the base and the mouthpiece.

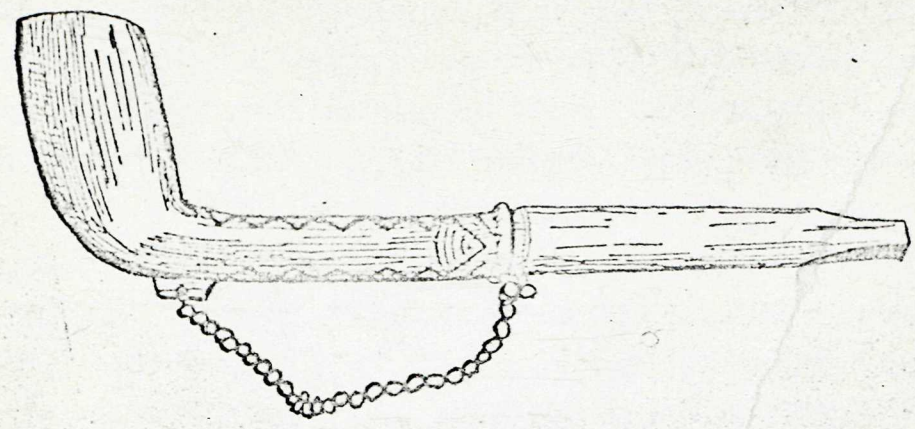

Fig. 2.

Specimens of pipes identical in form, and sometimes in material, though many are of serpentine, are also found among the Tsé'kéhne. But now-a-days the poorest Carrier scorns them as utterly unsuited to his present state of civilization.

CHAPTER III.

STONE IMPLEMENTS.

Some scientists seem to have an innate fondness for the mysterious and the insolvable. Upon the slightest pretext they delight in creating difficulties or propounding problems. They long for novelties and must soar above the concepts of such weak-minded mortals as are naive enough to pay any attention to the "Hebrew myths" of the creation of man and his comparatively recent appearance on the scene of this world. Whereas in modern times we have no authentically recorded instance of mound building by American Aborigines,* and because some of those artificial works are of considerable magnitude, they jump to the conclusion that the so-called mound-builders must have been a very ancient race, more advanced in civilization than the Indians of our days and altogether different from them.† In like manner, because in Europe, and in some parts of America stone implements have been discovered which are of a particularly rude pattern, they infer that these remains being found in river beds or, in Europe, imbedded in geological strata supposed to have been formed at a very remote epoch prove the existence, not only of prehistoric, but even of pre-Adamite man. Students who prefer to rely on the authority of such an unerring guide as the Bible to following modern savants through their ever shifting, if not conflicting, theories, cannot but remark, I fancy, that, in the same way as the latest researches tend to confirm the opinion of those unprejudiced antiquarians who from the beginning doubted the great antiquity of the American mounds and the extraneous nationality of their builders,‡ even so it must ultimately

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* As will appear from note ‡ the Cherokees did erect mounds, though unobserved by the whites, within the present century.

† "So strong in fact is the hold which this theory . . . has taken of the minds of both American and European archæologists, that it not only biases their conclusions but also moulds and modifies their nomenclature, and is thrust into their speculations and even into their descriptions as though no longer a simple theory, but a conceded fact." *Burial Mounds of the Northern Section of the U. S. by Prof. Cyrus Thomas; Fifth Ann. Rep. Bur. Ethnol.* p. 80.

‡ Evidence corroborative of this assumption would fill many pages. Scientists in every way qualified to speak on this subject and to whom nobody can refuse a hearing have clearly shown the futility of the theory which ascribes the erection of the mounds to non-Indian races. Prof. Cyrus Thomas, than whom I think there is no more reliable authority on the subject, lays down as one of the conclusions derived from the mound explorations under the auspices of the Smithsonian Institution that "nothing trustworthy has been discovered to justify the theory that the mound builders belonged to a highly civilized race, or that they were a people who had attained a

prove to be the case with regard to the fabulous age ascribed to what are called palæolithic implements. By the end of the last century Voltaire and his school were wont to adduce the pretended enormous antiquity of the Egyptian monuments as an irrefutable evidence of the inaccuracy of the Mosaical chronology. Time went on, and the days came when Champollion and Sir. H. Rawlinson deciphered the Egyptian and Assyrian inscriptions. Then the very same works which fifty years before were instanced as an excuse for the encyclopedists' sneers at the Scriptures were converted into the best extrinsical proof of the accuracy of the Mosaical account.

I am not an archæologist, much less a geologist. Yet, upon entering into a question in connection wherewith so many strange and, to me, evidently

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higher culture status than the Indians. It is true that works and papers on American Archæology are full of statements to the contrary which are generally based on the theory that the mound-builders belonged to a race of much higher culture than the Indians. Yet, when the facts on which this opinion is based are examined with sober scientific care, the splendid fabric which has been built upon them by that great workman, imagination, fades from sight. . . The links discovered directly connecting the Indians and the mound-builders are so numerous and so well established that there should be no longer any hesitancy in accepting the theory that the two are one and the same people. . . The testimony of the mounds is very decidedly against the theory that the mound-builders were Mayas or Mexicans" *Work in Mound Exploration of the Bur. Ethnol., Washington, 1887, p. 11-13.* To corroborate by actual facts my position on this question, I glean from the same paper the following extracts:—"In another *Wisconsin* mound . . . was found lying at the bottom on the original surface of the ground, near the center, a genuine, regularly-formed gunflint. In another *Tennessee* mound some 6 feet high and which showed no signs of disturbance, an old fashioned horn handled case-knife was discovered near the bottom. . . From a group in Northern *Mississippi* in the locality formerly occupied by the Chickasaw were obtained a silver plate with the Spanish coat of arms stamped upon it, and the iron portions of a saddle. At the bottom of a *North Carolina* mound, part of an iron blade and an iron awl were discovered in the hands of the principal personage buried therein. . . At the bottom of an undisturbed *Pennsylvania* mound, accompanying the original interment . . . was a joint of a large cane wrapped in pieces of thin and evenly wrought silver foil, smoothly cut in fancy figures." *Ibid. p. 9 and 10.* I have underlined the names of the states mentioned to show that mound-building in post-Columbian times was by no means local or exceptional. To the above should be added the still more significant fact that in a small undisturbed mound in east Tennessee a stone with letters of the Cherokee alphabet rudely carved upon it was lately discovered by a party of American explorators. *The problem of the Ohio Mounds*, p. 37, note 1. Dr. D. G. Brinton in his latest work, *The American Race*, p. 87-88, admits that "there is, to say the least, a strong probability that they [the modern Muskokis] are the descendants of the constructors of those ancient works" [namely, the mounds in their vicinity]. Over and above the authorities already quoted, here is how Dr. J. W. Powell, the learned head of the Bureau of Ethnology, Smithsonian Institution, ends a review of an important paper by Mr. W. H. Holmes:—"This eliminates one more source of error cherished by lovers of the mysterious to establish and exalt a supposed race of Mound-Builders." *Third Ann. Rep. Bureau of Ethnology*, p. lxiii.; Washington, 1884. Nobody will deny that that gentleman, owing to his official position, enjoys opportunities of judging of the merits or demerits of a cause of which few indeed can boast. Lastly, it must be added that unlimited evidence goes to prove that in almost every case the modern Indians occupy the exact territory where their forefathers lived when they first came in contact with the whites.

false theories have been built, I feel the necessity as a Christian and an observer of my own surroundings to put on record my utter disbelief in any proposition which may run counter to the natural deductions from the Book of Genesis. True, even Christian anthropologists are far from agreed as to the probable age of man, since such a learned orientalist as the Abbè Vigouroux suggests * and Father Thein inclines to believe † that creation dates from over 8000 years as against the 6000 which it was customary to reckon as the maximum distance which separates us from Adam. Yet methinks that there are limits beyond which modern interpretation of the sacred text cannot safely go. I suppose that no person who has any regard for the authority of the Bible—I am tempted to add, and for sober, common sense ‡—will believe in the hundreds of thousands of years attributed by some to palæolithic stone implements and consequently to man. To show that there are valid reasons to doubt the correctness of such chronological computations, let me adduce here a few facts derived from the very source to which they are wont to point in confirmation of their extravagant theories, I mean Geology.

The great antiquity attributed in Europe to stone implements is based generally on the age of the geological strata wherein they are found. For the sake of briefness, let us choose those the formation of which is the most easily accounted for, say the alluvial strata. Pieces of pottery found at a depth of thirty-nine feet in the mud of the Nile delta were pronounced by antiquarians of repute to be 13,000 years old. Such authorities as Sir John Lubbock and Sir Charles Lyell asserted in various papers that those Egyptian relics must date back from 12,000 to 60,000 years. Now, Sir R. Stephenson found at a *greater* depth in the delta, near Damietta, a brick bearing on its surface the stamp of Mohammed Ali! § The discoverer of the pieces of pottery "rated the growth of the mud deposit in a given spot at only three and a half inches in a century;

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* *Les Livres Saints*, etc., Vol. III., p. 238.

† Christian Anthropology, p. 245, New York, 1892.

‡ For my own justification and to illustrate the vagaries of some modern scientists, let me recall the fact that from the supposed vestiges of man discovered in the strata of the tertiary period, some geologists assign a date of at least 300,000 years before the beginning of the historic epoch. Now a clever Italian writer who has made an arithmetical computation of the number of men who must have been existing on the earth at the time commonly assigned to the creation of Adam according to that hypothesis, finds that this number cannot be expressed without 434 figures! Suppose the habitable part of the earth extended in a series of stories each one meter in height and filled with men in the ratio of 10 to each square meter as far up as 400 times the radius of the moon's orbit and the limits of the earth's orbit will be reached and yet the number of these men will be represented only by the figure 2 followed by 26 ciphers.

§ Christian Anthropology, p. 267, New York, 1892.

but a description of the same spot by a Mohammedan writer only six centuries ago shows that the mud is deposited at the rate of over eighteen inches in a hundred years."*

An English resident in India recounts that the foundation of a house he had himself built was carried away and strewed along the bottom of a river at a depth of thirty or forty feet below the level of the country. "Since then the river has passed on," he says, "and a new village now stands on the spot where my bungalow stood, but forty feet above the ruins; and any one who chooses to dig on the spot may find my *reliquiæ* there, and form what theory he likes as to their antiquity or my age." †

Again, antiquarians of a geological turn of mind should remember, it seems, that in most cases the agents which now produce alluvial deposits were formerly many times more powerful and that therefore strata containing archæological relics were formed at a proportionately greater rate. Take, for instance, the valley of the Somme in France. No region has probably become so famous in the Annals of Archæology. The Somme is to-day a modest river with very quiet waters. Now, according to M. de Mercey, who has made a careful study of its history, its waters at the Roman epoch were fifty times more abundant than in our days.‡ Moreover, it is a well established fact that the sea at that time must have extended to Amiens, since below a marine deposit nine feet thick coins have been found, the most recent of which bears the effigy of a prince who died A.D. 267.§ In the neighbourhood of Lille, a medal of Marcus Aurelius was found at a depth of twenty-five feet under a triple bed of reddish clay, muddy slime and peat mixed with sand. ‖

Thus Geology refutes itself the theories of the partizans of the great age of the primitive stone implements, theories which they claim to base on geological grounds. Let us now see what History has to say on the same subject.

The contention of the majority of antiquarians is that the stone age long antedated the historic period. In opposition to this, O. Fraas states that "arrows with sharp flint heads, and especially stone axes, stone chisels and stone hammers are found among the Germans, even down to the time of the Franks. . . . According to Herodotus, Ethiopians

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* Southall, Recent Origin of Man, p. 474.

† Quarterly Journal of the Geological Society, p. 327, Aug. 1863.

‡ *Bulletin de la Société Géologique*, 1876-77, p. 347.

§ Christian Anthropology, p. 260, New York, 1892.

‖ *Matériaux pour l'histoire de l'homme*, p. 136, 1878.

accompanied the army of Xerxes, who were so savage that they possessed only weapons of stone and bone . . . ; they had long bows made of the ribs of palm leaves and reed arrows with pebble points; their javelins were pointed with the horns of gazelles."* Five hundred years later, Tacitus says of the Fenni: "They have no (iron) weapons. Their only means of attack are arrows to which, having no iron, they give a bone point."† Cæsar tells us in his *De Bello Gallico* ‡ that the Gauls, while besieging Alesia (52 B.C.), made use of stones and pebbles. An epic poem of the fifth century describes two warriors battling with stone axes.§ St. Ouen, bishop of Rouen in the seventh century, speaks of flint hatchets in his "Life of St. Eligius." As far down as 1066, projectiles of stone were in use in Europe according to William of Poitiers.' It even appears that more than a century later the Scots of Wallace made use of stone arms.‖

History records many other similiar examples. I am well aware that the advocates of the great antiquity of man and human implements base their views on divers other reasons. But I think that all of these can be as easily disposed of.

INDUSTRIAL IMPLEMENTS.

The facts above recited are necessary to establish the really modern origin of many stone implements which some regard as absurdly ancient, and therefore if, in the course of the present monograph and more particularly of this Chapter, Déné implements or weapons are occasionally assimilated to objects, even palæolithic, of the same description found in the alluvial strata of Europe, my comparisons, instead of appearing preposterous, should be construed as additional evidence of the relatively recent origin of the European "finds." For, I cannot help thinking that some spear heads, for instance, which were in use here but one hundred years ago are identical in form and finish with weapons of the Solutrian period of the unpolished stone age. As for the industrial implements, and especially the axes of the prehistoric Dénés, though they might not perhaps be classed with strict propriety among palæolithic implements, I think they could not properly be styled neolithic, since they were mostly unpolished, except at the cutting edge.

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* *Die alten Höhlenbewohner*, p. 30.

† *Apud* Christian Anthropology, p. 320.

‡ Book VII., 81.

§ *Ampère, Histoire littéraire.*

‖ Christian Anthropology, *passim.*

Thus in fig. 3 we have a celt of a dark coloured, very close-grained rock which shows absolutely no sign of polish except at the cutting edge and, if I am to credit the Indian from whom it was obtained and who used it for some time as a skin scraper, even this faintly polished edge was wanting when the instrument was found on the surface of the ground. It would seem that these rude, unpolished axes were, at least among the Carriers, much more common than those entirely or even partially polished.

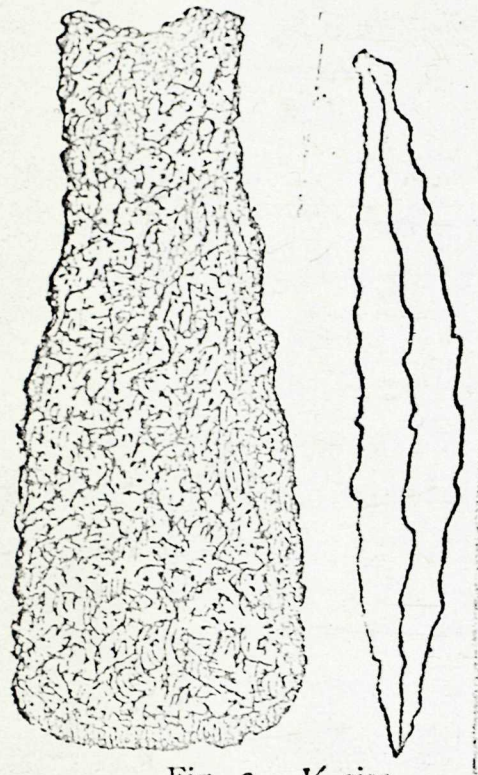

Fig. 3. ½ size.

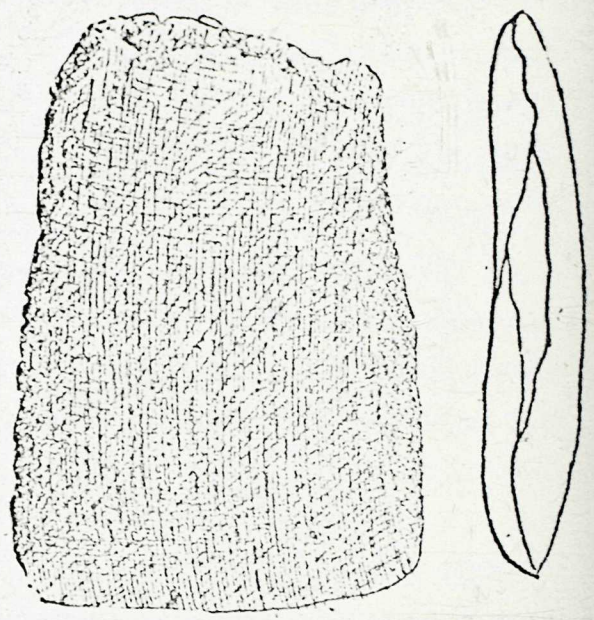

Fig. 4. ½ size.

Fig. 4 hardly exhibits any trace of improvement on that primitive pattern. Indeed the specimen it represents has even cost the maker a smaller amount of exertion, since one of its flat surfaces is merely the original surface of a blackish siliceous stone in its natural water-worn state, while the reverse is evidently the result of the splitting of the pebble out of which the implement has been made. Were it not for the unmistakable attempt at obtaining by friction a finer edge than is usual in scrapers, one would almost suppose that it has been designed for dressing skins rather than cutting wood.

The specimen illustrated by fig. 5, though unpolished except at its broadest end, is more axe-like in shape. It is of a shaly rock externally rusty-looking, but internally of a reddish gray transversely striated with fine parallel lines.

The implement represented by fig. 6 again differs both in form and material from all the preceding specimens of stone axes. It might be described as gouge-shaped, were itnot that no concavity corresponds to the convex exterior. No attempt at diminishing by friction the bulging surface of the stone has been made; its main asperities only have been

polished off. It is of a gray basaltic rock, regularly wood-veined and very hard.

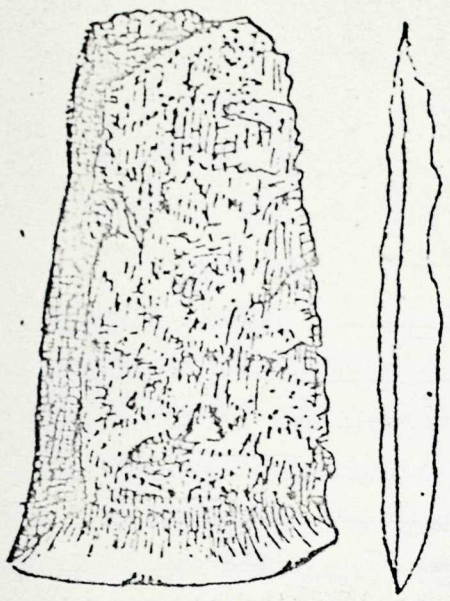

Fig. 5. ⅓ size.

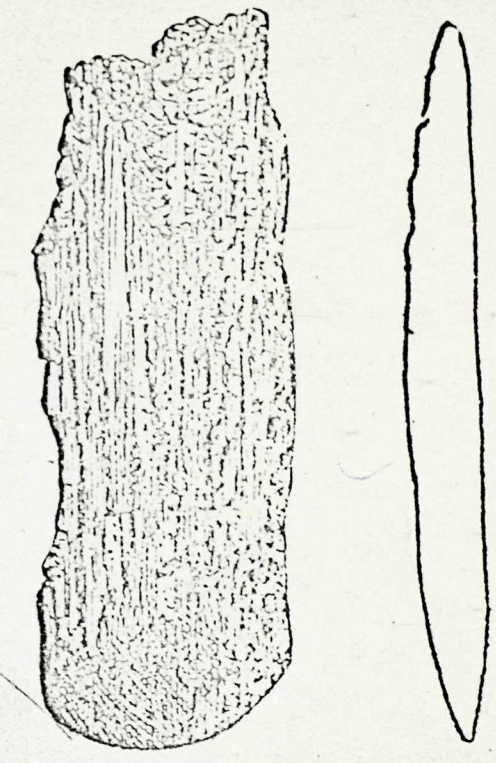

Fig. 6. ½ size.

Here (fig. 7) we witness a sort of transition between what might perhaps be called the medio-palæolithic and the neolithic types, in that this adze-blade has been treated to a partial polish elsewhere than at its edge.

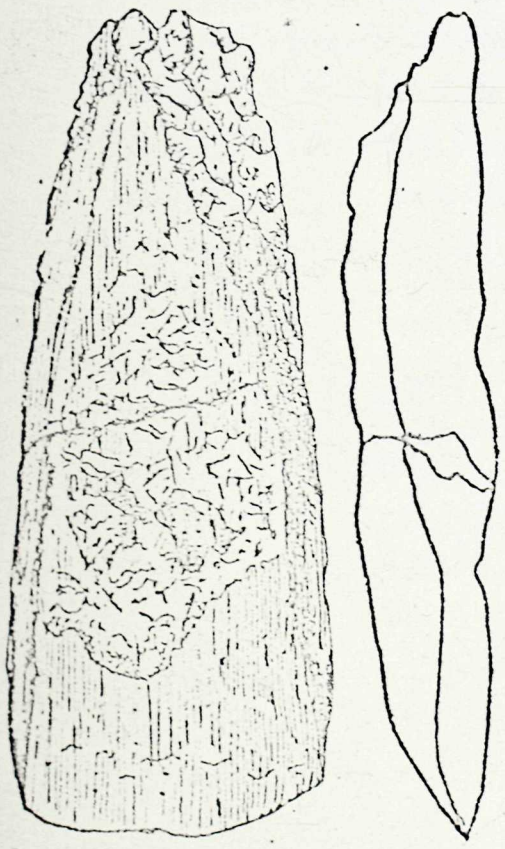

Fig. 7. ⅓ size.

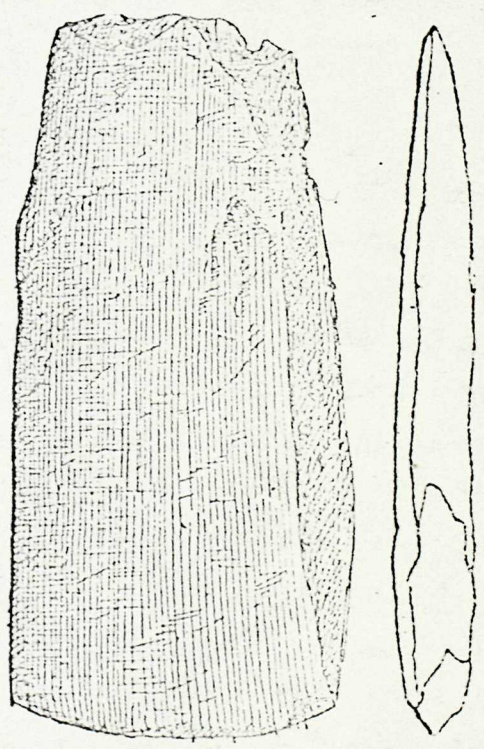

Fig. 8. ⅓ size.

It is of a fine-grained volcanic rock which has been rendered rather hard by pressure subsequent to its original cooling. It is disproportionately thick and fully 8½ inches long.

All these differences in type and material are suggestive of what appears to be a well established fact, namely that the Western Dénés had no fixed standard in view when engaged in the manufacture of their adze-blades. Any stone of sufficient hardness and consistency was probably picked up, and after a rough blocking off, was given as sharp an edge as the material was susceptible of acquiring by means of the least possible exertion. No attention whatever seems to have been paid to the details and no regard manifested for the elegance of the implement.

This remark applies to adze-blades of genuine Déné origin. But the Carriers, especially the more prominent members of the tribe, possessed much finer axes of which fig. 8 is a fair example. This is a thoroughly polished stone axe. In shape and material it is typical of all the polished implements of that class. They are, as a rule, of a greenish gray rock identified by Dr. G. M. Dawson as fine felspathic slate or falsite. Although they were extensively used among the Western Dénés, it would hardly be consistent with truth to credit the latter with their manufacture. Indeed I am rather inclined to believe—and this is borne out by the declarations of living aborigines—that, in so far at least as the Carrier tribe is concerned, most of them were imported from among the neighbouring tribes. The Carriers of the old stock were exceedingly poor workmen, and their old men are unanimous in asserting that their best axes were bartered from the Tsé'kéhne and the sea-coast Indians. It is therefore quite possible that the implement above figured had an extraneous origin.

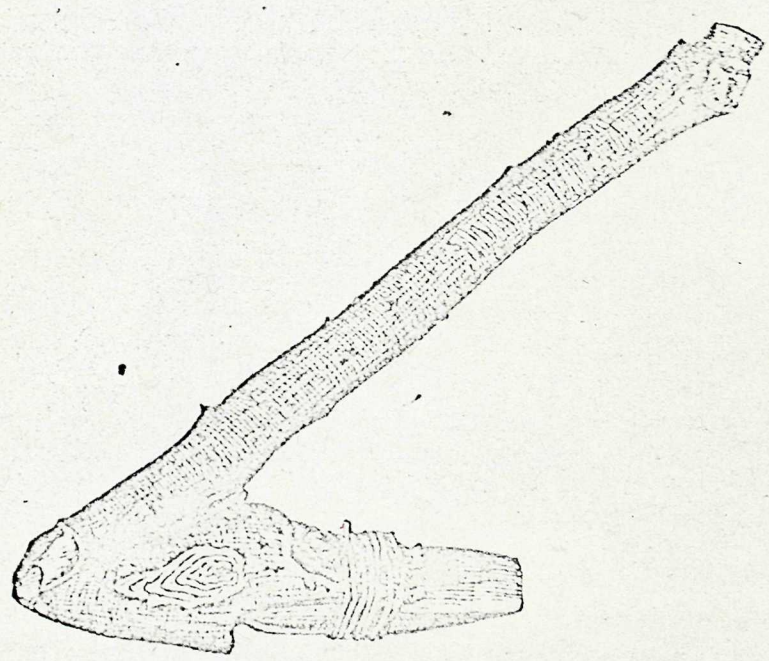

Fig. 9.

All these various types of axes were hafted to a handle generally of

black thorn,* *Prunus spinosa*, as is shown through fig. 9. The adzes thus obtained never had a cutting edge fine or hard enough to serve crosswise against wood, and the axeman's strokes had always to be directed obliquely.†

It must be noted also that, among the Carriers, such instruments were possessed by the notables and a few wealthy heads of families only. The common people had recourse to fire to cut their provision of wood. After having freed the main roots of a tree of the earth adhering thereto by means of slight excavations underneath, they would light there a small fire with vegetable matter with the result that the tree would inevitably topple over at the latest on the morrow thereafter. Then the smaller limbs were trimmed off either with a hard stick, with a stone club if any was at hand, or, among the Babines, with a bone or horn implement specially fashioned for the purpose. Smaller trees were next crossed over the trunk at the proper intervals to give the desired length to the pieces of wood, after which a fire was started at each point of intersection and maintained by the children or the women until both the larger and the smaller trunks were burnt asunder.

If too bulky to easily burn in the fire-place, the wood was then split with the help of wedges and a roughly formed wooden maul. Except among the TsiɊKoh'tin, the stone hammers and sledges so common among the coast Indians were unknown. For peculiarly heavy work such as sinking down the stakes on the solidity of which depends the firmness of the salmon weirs, they sometimes did, and even now do, use such elongated stones as bear the greatest resemblance to their *ɬwot'sɑz* or wooden maul; but these are never pecked or fashioned into regular sledges.

Fig. 10.

The Carriers' wedges‡ were either of hard wood, of the part of the

* In Carrier ʀɬɑɔs-*tco*, "big thorn."

† The axe is called *tsɛɂ* in TsiɊKoh'tin, *tsɛ́ɂ* in Tsé'kéhne and *tsiɂ* in Babine; whilst, curiously enough, the Carriers now call it, and seem to have done so as long as any old man can remember, *tsé-tsiɂ*, or stone-axe. Nevertheless, the Déné name of this primitive implement is evidently *tsɛɂ* or *tsiɂ*, a primary root.

‡ *Yiɂ*, pr. root.

cariboo horns next to the skull of the animal, or, in some cases, of stone (Fig. 10).

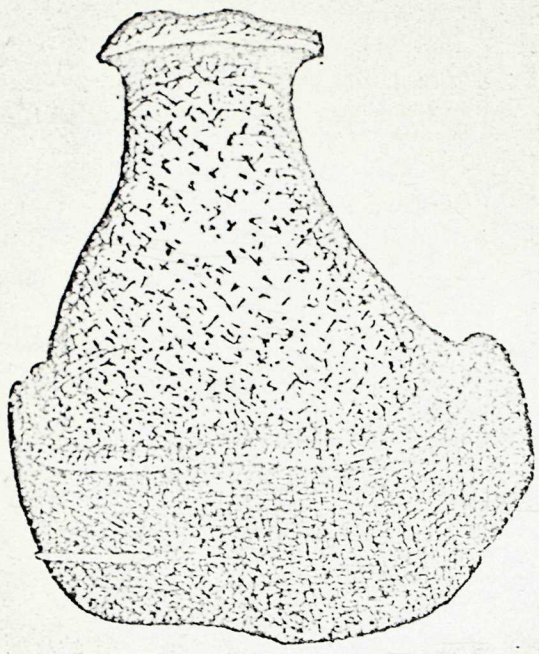

Fig. 11.

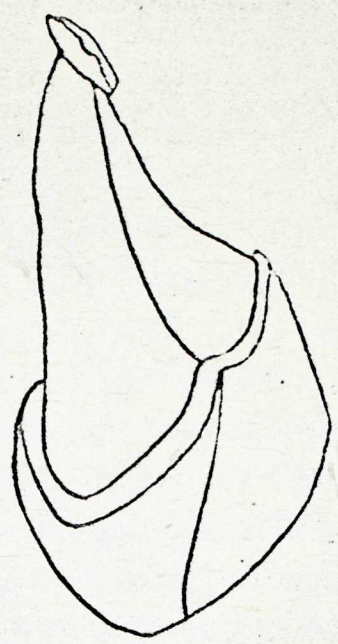

Fig. 12.

The implement illustrated above (Fig. 11) is a pestle* of a coarse variety of quartzite, of which Fig. 12 gives a side view. The lower half of the instrument has been left undisturbed by the artist, the handle only being pecked and smoothened to a fine enough finish. This pestle did service among the Babine Indians.

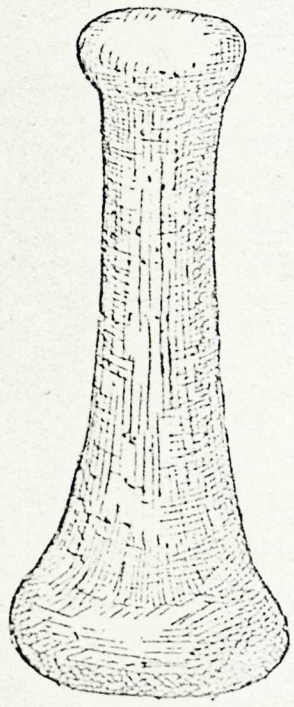

Fig. 13. ⅓ size.

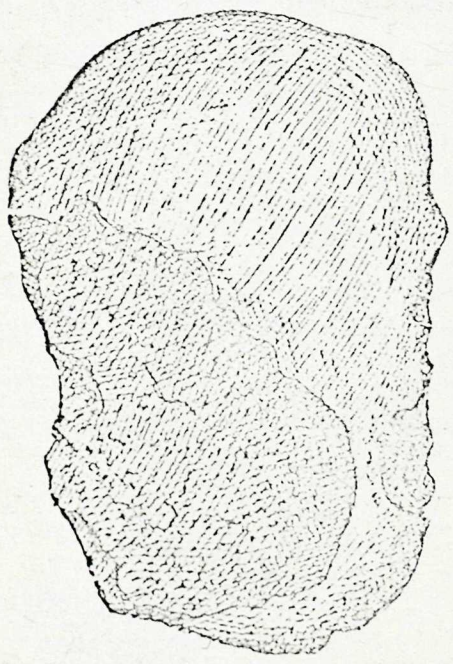

Fig. 14. ½ size.

Fig. 15. ½ size.

A very different model is shown in Fig. 13, wherein we have an implement of TsiqKoh'tin origin. It served a double purpose, being at

* *Pe-atsel*, "wherewith one pounds," v. n.

the same time a pestle and a hammer.* But the mode of using it was identical in both cases; the contact between the matter pounded or hammered was only at the bottom of the larger end, the hand grasping the instrument in the middle. I have witnessed old men working with such stone hammers among the Skwahomish† with whom the TsiɊKoh'tin have occasional intercourse.

All races of American Aborigines are proverbially improvident, and our Western Dénés cannot be said to form an exception to the rule. Yet these very implements, when used as pounders or pestles, testify to the fact that the Carriers at least had at times a thought for the morrow. In times of plenty, they pounded therewith dried salmon previously well grilled by the fireside, and kept the mash in a *tcaɟɟaɟ*, one of their bark vessels which shall be described further on. When this had been sprinkled over with salmon oil, the vessel was hermetically closed and the whole laid aside for use when, owing to the failure of the fishing season or any other cause, the natives were hard pressed by famine. Under similarly strained circumstances, salmon bones, or indeed the bones of any animal, were, and are, also likewise treated, and made to obviate similar needs.

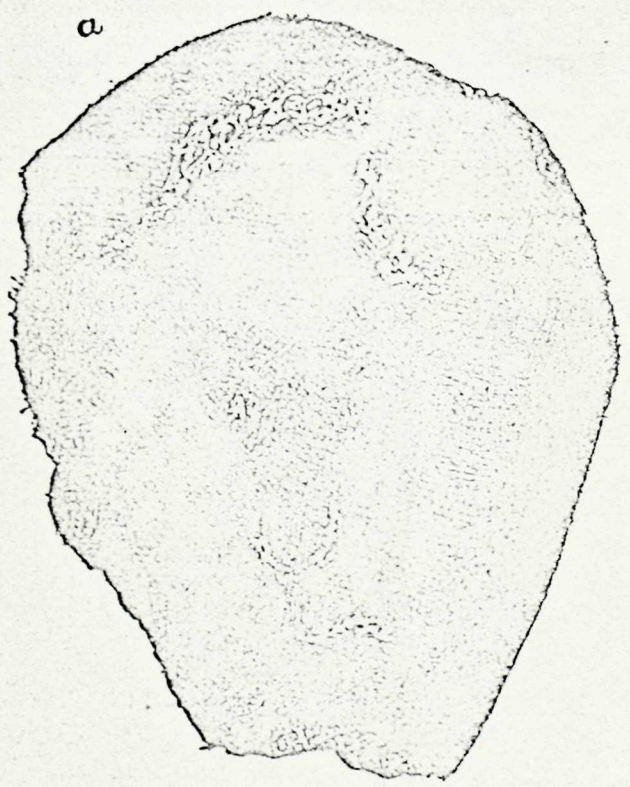

Fig. 16.

Here (figs. 14 and 15) are slickstones or stone scrapers,‡ which serve in the process of tanning hides. As may be seen, they are of a very primitive pat-

* *Pe-ɔlt'ɒɔ*, "wherewith one pounds or hammers," a verbal noun.

† The Sk'qō'mic of Dr. Boas.

‡ *Pe-ɔltzɛ̀h* "wherewith one scrapes" in Carrier; *tsé-tqɛ̀l*, "stone-broad" in Tsé'kéhne.

tern, and neither of the two evidences any regard for elegance. And yet they are fair representatives of their class, even of those which are still in use among the modern Carriers. They generally consist of flat halves of oblong pebbles one end of which has been slightly trimmed by chipping with a hard stone. The object of such implements being to soften by repeated pressure the hide which has already been stripped of its hair and adherent blood and fat, these scrapers receive no polish whatever. This is why I rather hesitate in classing among the skin scrapers the instrument represented by fig. 16, which is a "find," and was not, like those above figured in actual use among the natives when handed to me. It is of a very fine grained black volcanic rock polished at the broadest end *a*, and as it is drawn natural size, it is, if any, the smallest skin scraper I have ever seen.

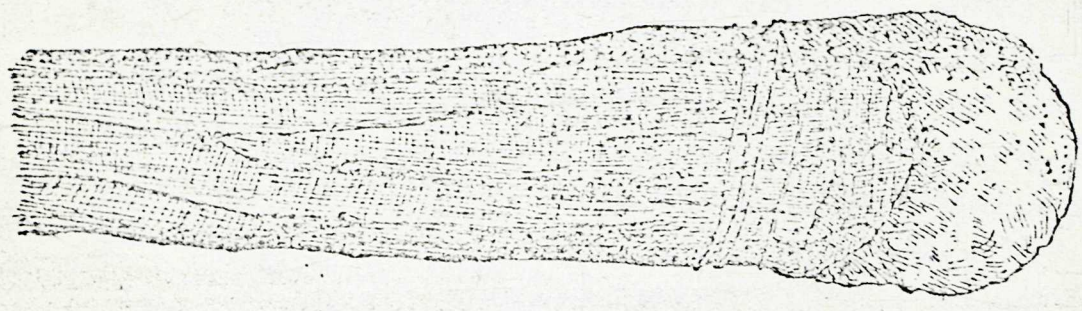

Fig. 17.

Most of these tools have received very little artificial treatment in their manufacture. In fact, they are almost invariably made as follows: any flat pebble which is likely to split as desired and thus yield easily suit-

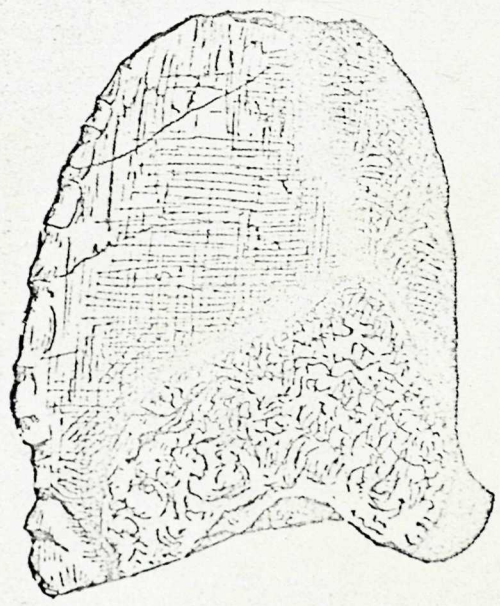

Fig. 18.

able material for the intended scraper is secured up between two stones on the ground and then split asunder by vigorously throwing a large stone on its upper end. The half which best answers the purpose, in

view is then trimmed to the proper shape by chipping off any too prominent asperities, or blunting the edges, should these prove too sharp.

The scraper is finally hafted, as shown herewith, by inserting it in the cleft end of any stick at hand over which a rope or buck line is securely lashed. This hafting is but temporary, as the stone part only of the implement is usually kept among the family chattels.

To the unthinking reader unmindful of the straits to which man may be reduced in the absence of the proper material and while too hard pressed by more urgent needs to look for it, the above (Fig. 18) might not be more than a useless piece of quartzite. But an experienced archæologist will not fail to detect therein unmistakable signs of human handiwork, and its fine, if somewhat serrated edge will at once suggest that it did formerly duty as a cutting tool. It is a salmon knife, which served first to rip the fish open, and then to cut longitudinal furrows through its flesh previous to exposing it to the action of the air. The large flaking noticeable near its blunt end is not accidental, but served as a grip for the thumb, while the index and medius fingers rested respectively on the back or thick side and on the reverse surface of the implement.

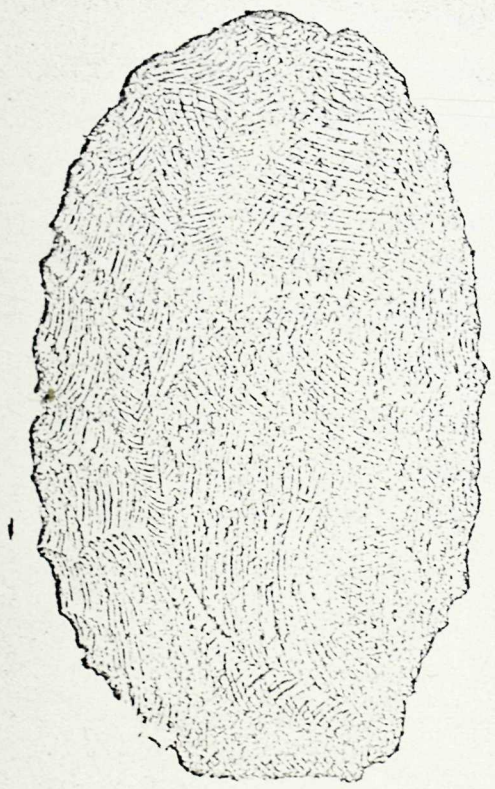

Fig. 19.

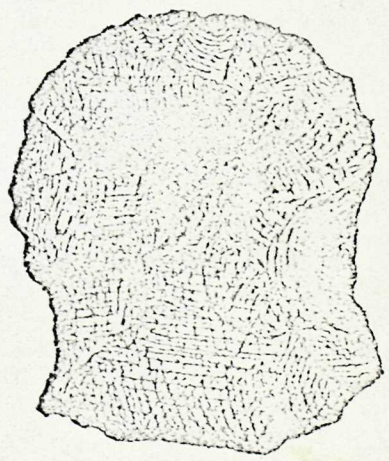

Fig. 20.

Figs. 19 and 20 represent stone knives* of different pattern and use. They are skinning knives and their material is augite-porphyrite.

* The Carrier word for "knife" is the same as that for "iron," viz., *pzthih* in Upper Carrier and *ethi's* in Lower Carrier.

Both are drawn natural size and their cutting edge is at the fore-end. Knive fig. 19 was used without handle, but fig. 20 was hafted to a short stick as is manifest from the side notches discernible therein. The identity of these instruments is beyond the possibility of a doubt, as it has been established by the testimony of an old Indian who used himself similar knives in his youth when no better ones were obtainable.

The most serviceable and therefore most highly priced working or carving knives in use among the prehistoric Dénés were nothing more or less than beaver teeth sharpened when necessary, by friction on a hard stone. But owing to the perishable nature of the material, none is now available for illustration. The only stone carving knife which has ever fallen under my observation is that herewith figured (fig. 21). I believe it to be of genuine black flint. The cutting edge is at *a* and it is still very keen. Notches at *b* and *c*, though slight enough, appear nevertheless to be quite intentional, and were it not for the symmetrical rounding off of the broadest end, they would suggest a double handle as the original means of facilitating work therewith. The Indians neither account for these notches, nor satisfactorily explain the mode of handling the knife.

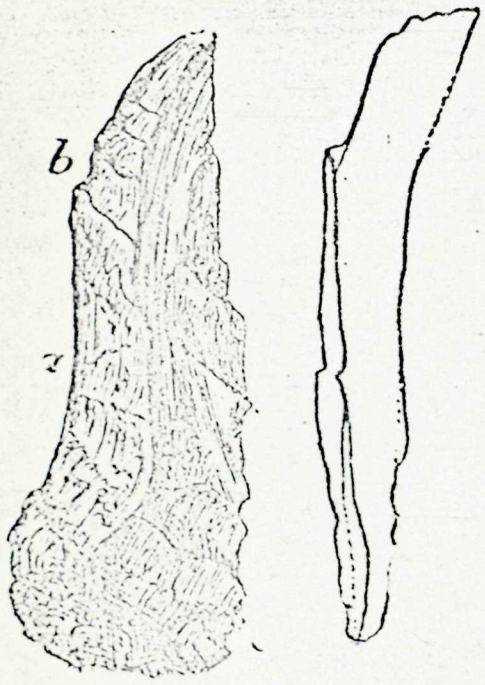

Fig. 21. ½ size.

Fig. 22. ½ size.

Fig. 22, represents a piecee of broken object the original use of which is likewise problematic. It is of a variety of green marble variegated with yellow and rusty red. The broadest end has been thinned to a dull edge and, except where it shows signs of accidental breakage, it has received an exceedingly fine polish. Indeed, though it has been found here, at Stuart's Lake, I believe it far too skillfully finished to be of Déné manufacture. It must have been imported from the Coast. But

what renders this relic particularly remarkable is the presence of the very fine grooves noticeable on each of its three unthinned edges, two only of which appear in the cut above, the third being on the reverse of the implement. This peculiarity, while rendering the identification of the find more difficult, suggests a similarity of form though certainly not of use, with an implement formerly common among the Carriers under the name of *ozih*, "it grinds through." It consisted of two stone tablets carefully polished at least on one side so as to permit of their being closely joined together. In the middle of their polished surfaces was a groove obtained probably by pecking, not friction, which when both tablets were superposed formed a cylindrical hole through which gambling sticks, arrow shafts, etc., were repeatedly passed and thereby given an exquisite finish. None of these implements is now extant. They were the equivalent of the wooden wrenches used by the Hupas under similar circumstances.

Weapons of War and of the Chase.

Prominent among these were, of course the arrow,* and its correlative the bow.†

The arrow heads‡ of the Western Dénés were either of stone, of bone or horn, or of wood. The form, no less than the material, of the stone arrow points greatly differed. In fig. 23 will be found specimens representative of the most common patterns. Many of them are quite diminutive in proportions, and would seem to partake more of the nature of play-things than of that of the deadly weapons they undoubtedly were. As regards shape, those marked *a* and *b* may be described as the typical arrow-points of the Western Dénés. In common with specimen *c*, whose main peculiarity is the absence of one of the usual side notches, they are of a blackish resonant rock which I long mistook for a variety of flint, but which Dr. G. M. Dawson declares to be a very fine grained augite-porphyrite. The Carriers call this stone *pîs*, and it is one of the 16 varieties of rocks known to their vocabulary. They used it in the making of the largest number of their missile weapons, arrows, spears, etc. It is but right to remark here that the point *a* is so much larger than most genuine Déné arrow heads, that some Indians claim it was a bow, not an arrow point. Of the bow points further mention will soon be made.

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* *'Kʔa*, prim. root.

† *Ɣthi.* Singularly enough the Carriers have a collective name for bow and arrow taken together. This is *'Kʔa-ɔɔa.*

‡ *Nhntai*, second. root.

A less common and more valued material, called *nəlre* in Carrier, is the obsidian of which the arrow-point marked *d* is formed. Such points are generally very small. *e* represents the most beautiful of all the arrow heads in my possession. It has been ingeniously chipped of a hard crystalline rock identified by Dr. Dawson as smoky quartz. Its form and

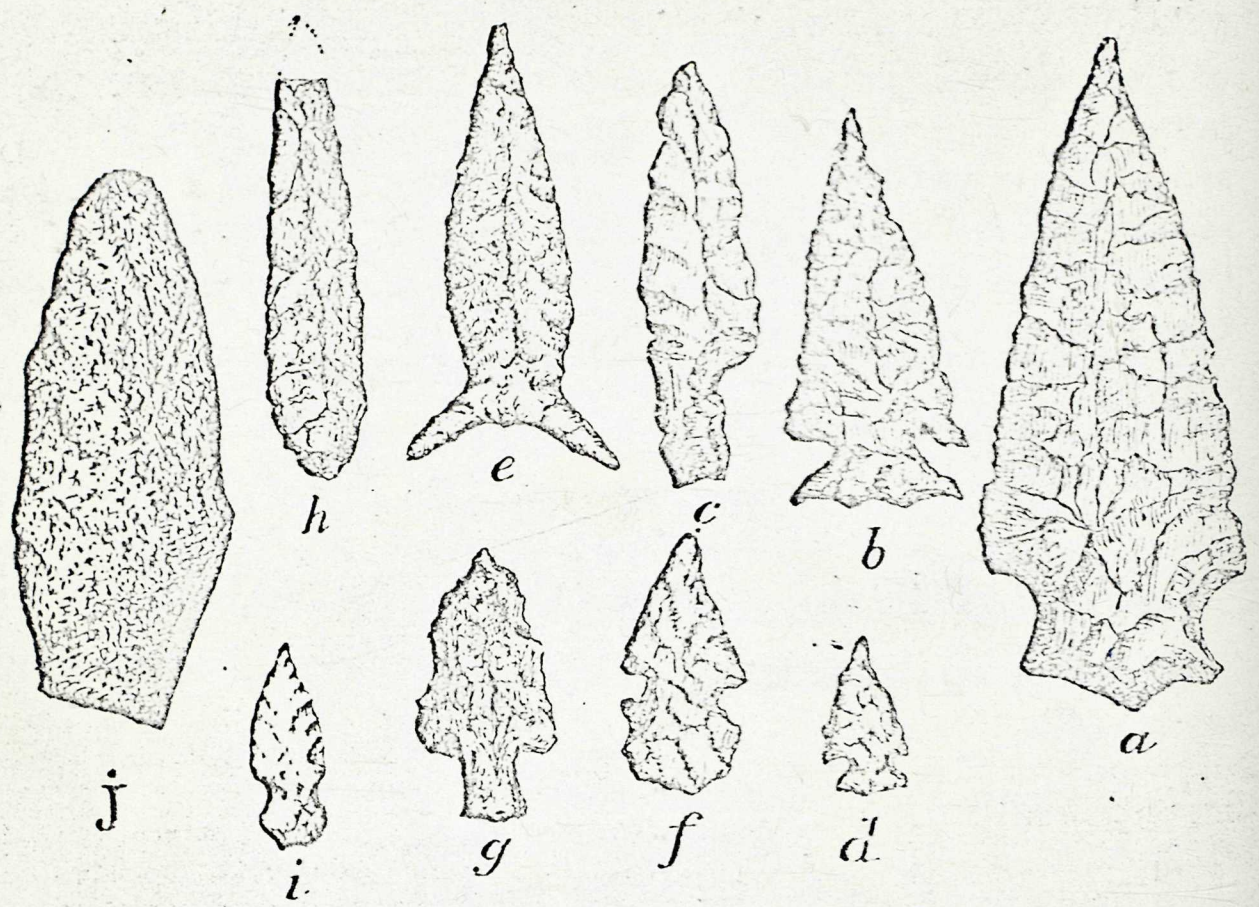

Fig. 23.

finish display evidences of exceptionally good workmanship, too good in fact to be Déné; and I cannot help supposing that it must be some relic left among the Carriers by some coast warrior after one of those many conflicts recorded in the traditions of the old men. Other points, such as those labelled *f*, *h*, are of a species of translucent vitreous rock which probably does not essentially differ from that of specimen *e*.

That marked *h* is remarkable for the absence of both notches. It is long, narrow, and so thick that but for its intentionally thinned edges it might be taken for a drill point. A few arrow heads as that marked *g* are of chalcedony, *tsé-lkrai* (stone-whitish). They are as a rule of a rather rude description.

All the above are drawn full size. Specimens *d* and *i*, when seen otherwise than on paper, appear very small and tiny indeed. Yet it would be erroneous to suppose them to be mere anomalies or exceptions. Judging from the number of Déné arrow heads in my collection, such diminutive implements form at least one quarter of all the arrow heads now extant.

Lastly, a few points are of a black, very hard and fine-grained stone, differing from the material of all the arrow heads already described. Such is that marked *j*. It is the only one of that description which I have ever seen. It is blunt-tipped, and with hardly any edge or sign of flaking. It has the exact appearance of an implement very much the worse for wear.

There are to-day no well-authenticated Western Déné arrow-heads of bone or ivory in existence. Their tip was not pointed like that of the stone weapons. They were mere beaver teeth in their natural state secured to a shaft. Some of these were also of the root part of the cariboo's antlers, and both bone and horn arrow-tips were considered exceptionally effective.

Fig. 24.

Fig. 25.

In Figs. 24 and 25 I have tried to illustrate the modes of connecting the stone points with the shaft, as formerly practised by our aborigines. Sometimes the shaft was simply cleft open to receive the point (Fig. 24), and sometimes it was slit at the end as in Fig. 25. In either case, point and shank were firmly fastened together with sinew and pitch. The foreshafts used along with the arrows of some American races were unknown here.

The shaft* of the Western Déné arrows was invariably of seasoned amelanchier *(A. alnifolia)* wood. As partially visible in Fig. 25, delicate grooves, one on each opposite side, ran through the shank of the weapon and were intended to facilitate the detection of the game when it had been only wounded. The blood issuing from the wound, by flowing

* Kɔs, a primary root.

freely through these grooves, dropped on the snow or bare ground in a less-scattered condition, thus aiding the hunter in tracking the animal ere it was finally dispatched.

Fig. 26.

Fig. 26 gives a fair idea of a Carrier arrow ready for use. As may be seen, the feathering is triple. The tips only of the feather quills are fastened to the shaft. Sinew and pitch were restored to in order to secure the part of the quills adhering to the shaft end, while sinew alone generally sufficed to fasten the larger or root end of the feathers.

A variety of arrow* which was entirely of amelanchier wood without stone or bone point or shaft grooves did service in connection with target practice or one of the games which shall be described further on. (Chap. VI.)

The Tsé'kéhne, who to this day live almost entirely on the spoils of the chase, formerly far excelled the Carriers in the manufacture and use of hunting weapons. Some of these, which were indeed in actual use among the Carriers, were nevertheless of undisputed Tsé'kéhne origin. Such were the "cut arrow," the triple headed arrow and the blunt arrow.

Fig. 27.

The "cut-arrow" (*'kra-tcən-kwəl*, lit. "arrow-stick-cut off") was so called on account of its peculiar shape (fig. 27). Its point was made of a cariboo horn and "was awl-like in form. Its broader extremity was hollowed out to receive a wooden shaft which served to dart it off from the bow as a common arrow, with this difference however that, when in motion, the horn point detached itself from the shaft. This projectile was deadly, and intended only for use against a human enemy or for killing large game."†

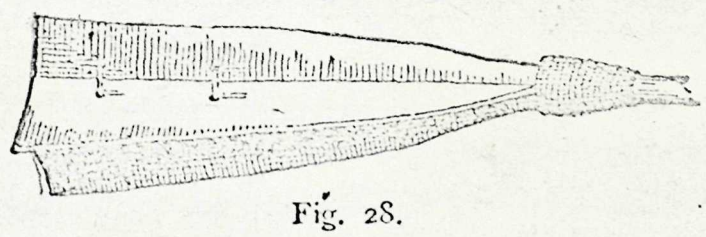

Fig. 28.

To shoot smaller game they had recourse either to the triple headed

* *'ke-squh*, verb. noun, meaning as far as it can be translated: "it shoots in as far as the feathering."

† The Western Dénés, etc. Proc. Can. Inst., Vol. VII., p. 140.

arrow shown in fig. 28, or to a wooden blunt arrow (fig. 29). The former* consisted of three flat pieces of bone, or more generally horn, cut transversely at their broadest extremity and fastened to the shaft through their smaller end and sides by strong sinew threads. It did good service even against large animals, and it is not more than 40 years since it has entirely fallen into disuse.

Fig. 29.

The latter† has been drawn from a specimen obtained from a Tsé-'kéhne who, in common with the majority of his fellow huntsmen, to this day finds this simple and primitive looking projectile invaluable against grouse, rabbits, etc.

Even such an apparently insignificant act as that of releasing the arrow while shooting has been analyzed so as to yield modern scientists material for ethnic divisions. Professor Morse thus classes the different methods in vogue among American, European or Asiatic archers :—

(1) *Primary.*—The notch of the arrow is grasped between the end of the straightened thumb and the first and second joints of the bent forefinger. It is practised by children generally, and by the Ainos, Demeraras, Utes, Micmacs, etc.

(2) *Secondary.*—The notch of the arrow is grasped with the straightened thumb and bent fore-finger; while the ends of the second and third fingers are brought to bear on the string to assist in drawing. Practised by the Zunis, Ottawas, etc.

(3) *Tertiary.*—In this release the forefinger, instead of being bent, is nearly straight with its tip as well as the tips of the second and third fingers, pressing or pulling on the string, the thumb, as in the primary and secondary release, active in assisting in pinching the arrow and pulling it back. It is practised by Sioux, Arapahos, Cheyennes, Assiniboins, Comanches, Crows, Blackfeet, Navajos, Siamese, Great Andamanese.

(4) *Mediterranean.*—The string is drawn back with the tips of the first, second and third fingers, the balls of the fingers clinging to the string with the terminal joints of the fingers slightly flexed. The arrow is lightly held between the first and second fingers, the thumb straight and inactive. Practised by nations around the Mediterranean, by modern

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* *Tarwɔs*, second. root.

† *Thɔs.*, prim. root.

archers, Flemish (using first and second fingers only), Eskimos, Little Andamese.

(5) *Mongolian.*—In this release the string is drawn by the flexed thumb bent over the string, the end of the forefinger assisting in holding the thumb in position. The thumb is protected by a guard of some kind. It is practised by Manchus, Chinese, Coreans, Japanese, Turks and Persians.*

Our Carriers followed the first or primary method of arrow release, while the Tsé'kéhne conformed to the fourth or Meditterranean. I am not acquainted with that in vogue among the prehistoric Tsiɬkoh'tin. The above details are given to show to what advantage even the slightest differences in the performance of an act common to all primitive peoples can be turned by the acute observer and reflecting scientist.

Although the scope of this paper, to be consistent with its heading, should be restricted to stone implements, I feel that I cannot well separate bows from arrows in my treatment of the weapons of the chase. As far as my information goes, three varieties of bows, exclusive of cross-bows, obtained among the Western Dénés. Of these two were proper to the Tsé'kéhne, and the third to the Carriers and probably the Tsiɬkoh'tin as well.

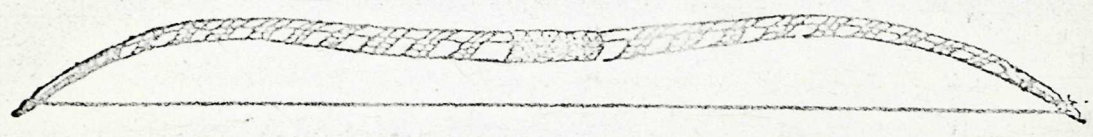


Fig. 30.

The regular hunting or war bow of the Tsé'kéhne was of mountain maple (*Acer glabrum, Tow.*) and five feet and a half or more in length. The edges, both inner and outer, were smoothened over so as to permit of strips of unplaited sinew being twisted around to ensure therefor the necessary strength. These pieces of sinew were fastened on with a glue obtained from the sturgeon sound, which also did service for all kinds of gluing purposes among each of the three tribes, while still in their prehistoric period. The central part of the bow, which was so thick as to appear almost rectangular, was finally covered with a tissue of differently-tinged porcupine quills.

Great care was taken to obtain a bow-string impermeable to snow and rain. With this object in view, delicate threads of sinew were twisted together and afterwards rubbed over with sturgeon glue. This first string was then gradually strengthened by additional sinew threads twisted round the first and main cord, each overlaying of sinew being

* See Anthropology in 1886, by C. T. Mason, p. 538.

thoroughly saturated with glue. Finally when the string had attained a sufficient thickness for efficient service, it was repeatedly rubbed over with the gum of the black pine (*Abies balsamea*).

Fig. 31.

A less elaborate bow (Fig. 31) is still to this very day in use among the Tsé'kéhne in connection with the blunt arrow already mentioned. It is of seasoned willow (*Salix longifolia*), and being devoid of any sinew backing or other strengthening device, its edges are more angular than those of Fig. 30. Its string consists merely of a double line of cariboo skin slightly twisted together. The specimen figured above measures four feet ten inches.

Fig. 32.

The Carrier bow was never much more than four feet in length, and the wooden part of it was invariably juniper (*J. occidentalis*). Instead of being twisted around as in the Tsé'kéhne bow, the shreds of sinew were glued on the back after the fashion of the Eskimo bow, with this difference, however, that in the Carrier weapon the sinew was not plaited. When a layer of thin sinew strips had been fastened lengthwise on the entire back of the bow, it was allowed to dry, after which others were successively added until the desired strength had been obtained. A process analogous to that whereby the Tsé'kéhne bow-string was made was followed in cording the string of the Carrier bow.

It is hardly necessary to remark that both of the aforesaid war and hunting bows disappeared almost simultaneously with the establishment of the North-West Company's posts throughout Western Déné territory. However, it may be said that as late as 60 years ago fire-arms were still *desiderata* among the poorest class of Aborigines.

Here is a Tsé'kéhne crossbow* of modern manufacture. It does duty against small game or for target practice, and is also used by children as a plaything. Although the old men assure me that they have always seen such weapons among their fellow huntsmen, I cannot believe that cross-bows were known to the original Tsé'kéhne. It is much more probable that they have been derived from the band of Iroquois established in close proximity to the territory of the Beaver Indians. My purpose in

* *Tl'kes t*, "that which darts off," in Tsé'kehne.

mentioning them here is to show that the faculty of self appropriation and adaptiveness which more particularly characterizes the Carrier mind,

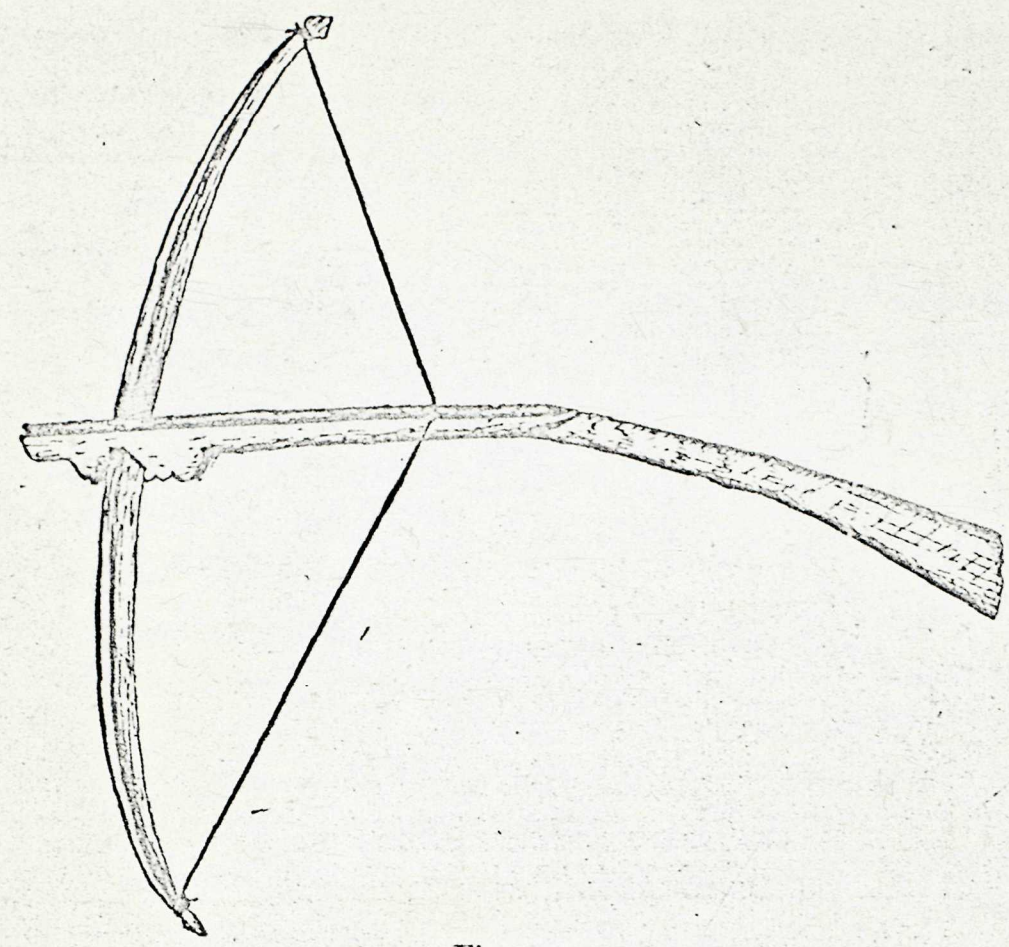


Fig. 33.

is, to some extent, shared in even by the Tsé'kéhne tribe which to this day has little reason to boast of its material progress.

A detail which it may also be worth noting is the mode of holding the bow while shooting. The Carriers, who almost invariably knelt while shooting, held it in a horizontal position, while the Tsé'kéhne used it perpendicularly, one end of the weapon resting on the ground.

To return to stone implements. Besides the arms already described the Western Dénés had recourse, when on the offensive, to five other varieties of weapons; the spear, the dagger, the war club, the temple-lancet or skull-cracker, and what might be termed the counterpart of the modern bayonet.

This latter arm was called *ɔɬthi-la-dîn'ai** which may be freely translated "fixed at the end of the bow." Its name explains its nature. It was brought into requisition by the warrior or the hunter when too closely pressed by the enemy to shoot, and was used as a spear. Such points were of identical material with that of arrow-heads, *a*, *b* and *c*, fig. 23, and were chipped to the shape of figs. 34 and 35. The latter point is rather ruder in appearance than the average bow-points. Indeed from

* Lit. "bow-end-appended to;" plural. *ɔɬthi-la-dînla*, a verbal noun.

the cut giving a side view of it, it would seem that it had been left unfinished. These weapons were inserted in a slit at one end of the bow

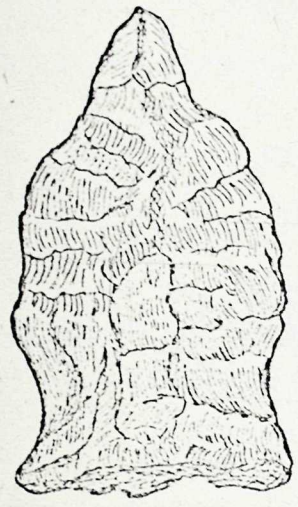


Fig. 34.

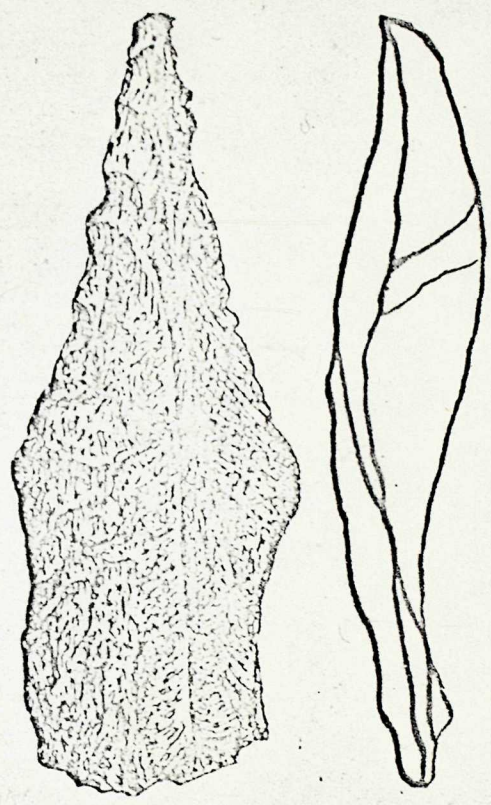


Fig. 35.

(fig. 32) and securely fastened therein with pitch inside and pitch and sinew outside.

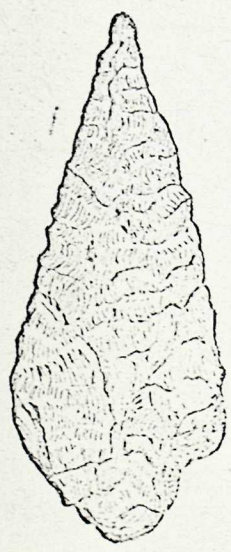
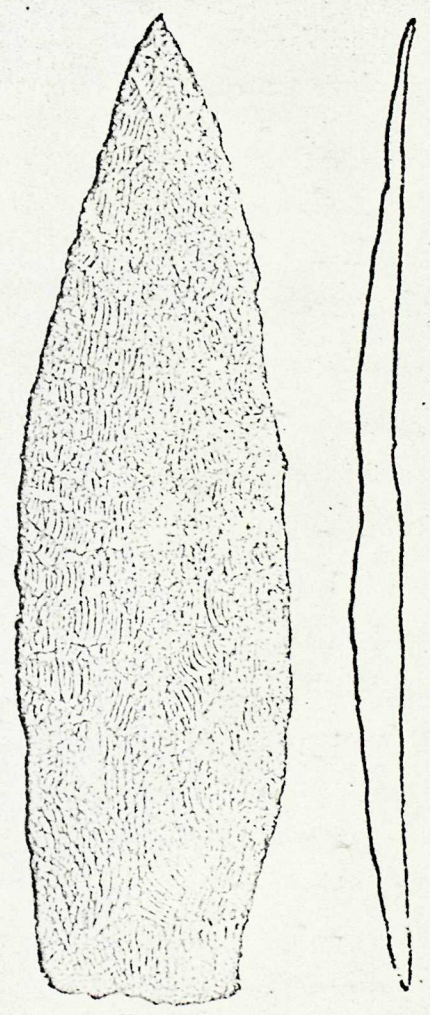


Fig. 36, $\frac{1}{3}$ size.



Fig, 37, size.

The spear heads * in nowise differed from the bow-points, save perhaps that they were generally larger in proportions and narrower at the base. Herewith are shown representative specimens. Fig. 37 is, by exception, of felspathic slate. Its shape and make would suggest to the archæologist a comparison with the laurel leaf points of the so-called Solutrian epoch. It is drawn full size. One of its surfaces shows hardly any trace of flaking and almost perfectly flat.

In fig. 38 we have a type of a very different description. It lacks the exquisite finish of the preceding and is double-pointed, so that the base is not easily distinguished from the tip. As may be seen from the outlines of its side, its shape is far from elegant.

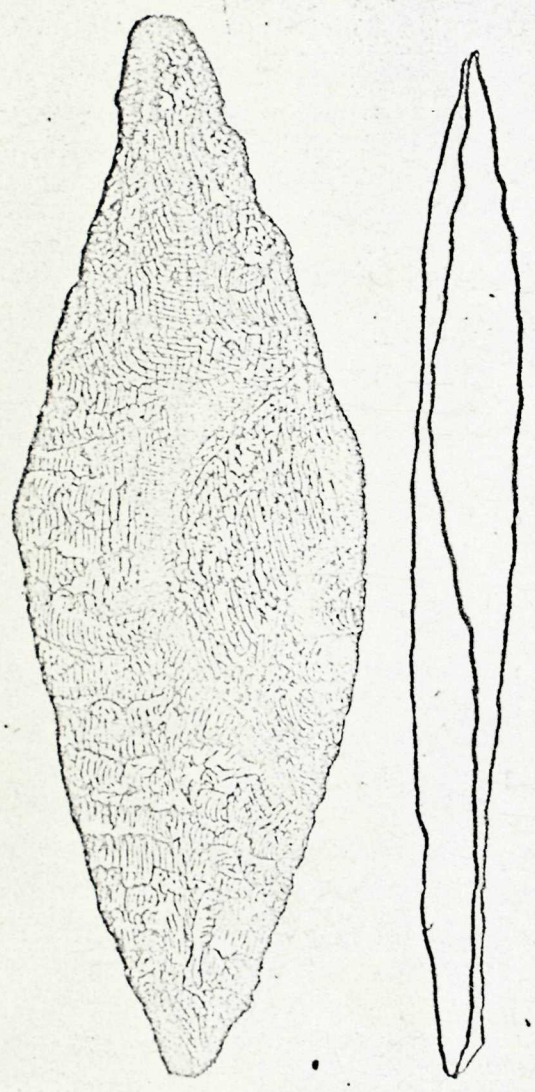


Fig. 38.

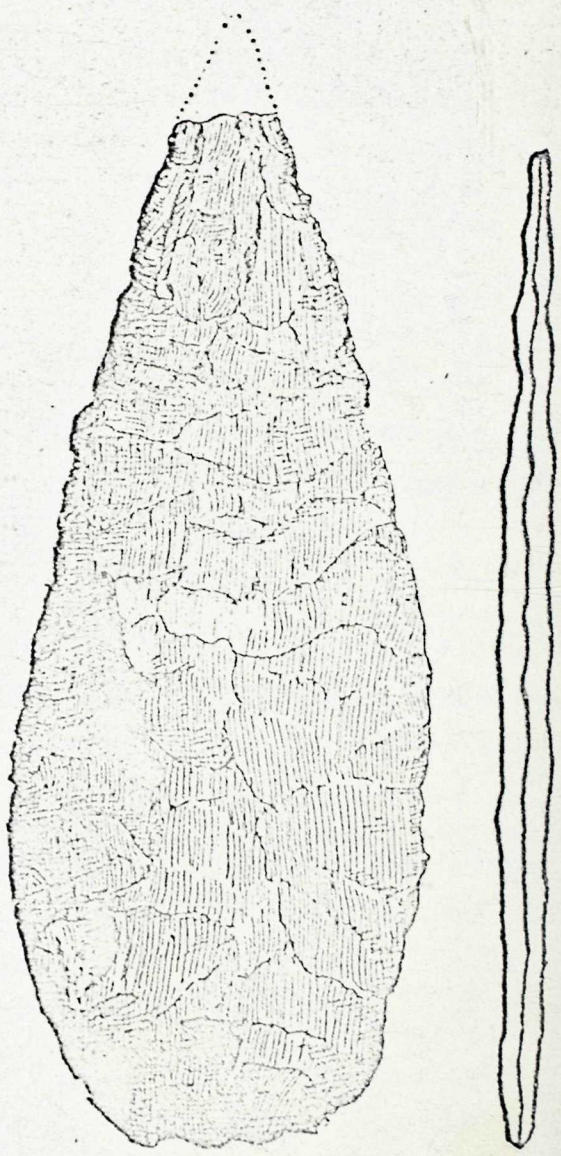


Fig. 39.

All of these spear heads were hafted to a pole five or six feet long pretty much after the mode of connecting the arrow heads with their shaft.

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* The heads of these and all missile weapons are called *nûntaï*. The spear, shaft and point, is named in Carrier *sɔR-thɔz*, or "hook-staff."

To all appearances, the stone daggers* of the prehistoric Dénés were distinguished from their spears by two peculiarities: the shortness of the handle and the greater dimensions of the blade. I would call the attention of antiquarians to the size, shape and finish of the above illustrated dagger blade (fig. 39). Although evidently broken off at the tip end, it is still fully 8½ inches in length and 3 inches in width. Yet it is not more than ⅜ of an inch in its greatest thickness. It has been chipped off to an almost perfectly flat surface, the flakes being as in the Solutrian implements remarkably large and shaving-like. Nevertheless this exquisite relic of prehistoric workmanship has been found, not in the cavern of Solutré, but scarcely two hundred yards from where these lines are written. I may add that it was found on the surface of the ground† and is of exactly the same material as the great majority of Déné arrow heads.

The Déné dagger was carried about hanging from the belt through a a leather thong, as is now done with its modern substitute, the steel poniard.

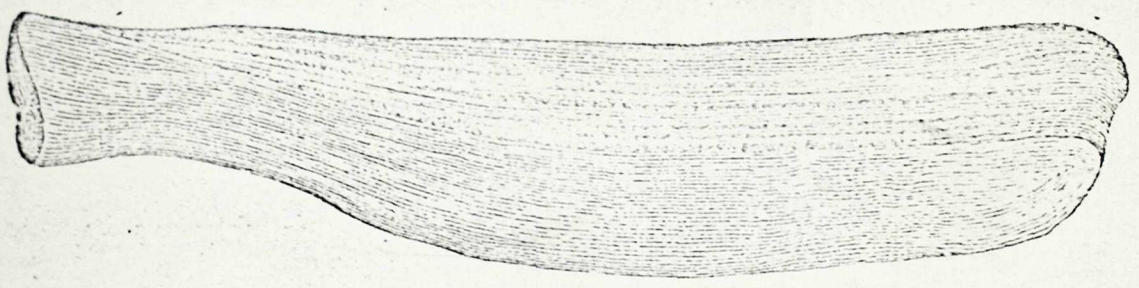

Fig. 40. ⅓ size.

* *Meeyal*, second cat.

† The foregoing had been written for some time when I came across the following passage of Mr. D. Boyle's Archæological Report for 1891 (p. 10) which I had overlooked in the haste of the first reading: "While many specimens (especially flaked ones) found in different parts of the province, may be classed as palæoliths, they have, up to the present time always been found associated in such a way with neoliths that it is impossible to designate them as po'æoliths with any degree of certainty. Leaf-shaped "flints" have been picked up that are quite as rudely formed as any from the deepest stalagmite deposits of Europe, but never in situations to suggest that they are other than rough-hewn tools or weapons, which, as such had a purpose in the economy of people who are capable of producing better things. Until we find specimens of this kind, as Dr. Abbot found them in the Trenton gravels, or in some situations isolated from all others, or distinct as to material or coating from specimens of a superior quality in the same neighbourhood, we shall not be warranted in making any distinction relative to time of possible production." It is gratifying to hear of would-be palæoliths being found even in Eastern Canada alongside with neoliths, for this coincidence appears to me a confirmation of the opinion that, in America at least, these divergences of type are suggestive less of distinct epochs than of unequal skill in the craftsmen, or possibly ethnic difference in the race, that produced them. I am persuaded that had Sir. A. Mackenzie examined with the care of an antiquarian the arms of the Western Dénés whom he met one hundred years ago, he would have found both styles co-existing among them.

Apart from the above missile and cutting arms, the Carriers and Babines possessed two other offensive weapons of stone, which they called respectively, *Rol* and *thol'toR*.

The first is the war club of which at least two different types existed.

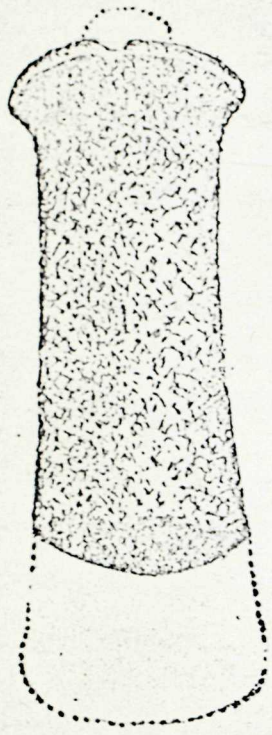

Fig. 41.

Fig. 40 is a club of a grayish basaltic rock which has been treated to a partial polish only, as its surface is naturally smooth. A variety of the same was of bone, or more generally of cariboo horn. Its shape and use were identical, but its length was about double that of the stone weapon. Fig. 41 represents a club of a different and perhaps more common pattern. It is of carefully pecked granite, and though the specimen illustrated is imperfect, the base and knob being wanting, I have had no difficulty in reconstituting it to its original form after other similar weapons I have seen in several parts of our district. To the knob at the small end was fastened a buckskin line which, being firmly wound around the wrist and hand of the warrior, ensured the safe keeping of the weapon amidst the excitement of the fray.

The skull-crackers, vulgarly called "tommy-sticks," of the plain Indians of the North-West Territories, are well-known even to others than archæologists. I have never suspected their presence among the ancestors of our present Déné population west of the Rockies until last year, when the example (fig. 42) was found in Hwotsu'tin territory. It came as a revelation upon the Carriers, none of whom was found who could do more than guess its use. It is somewhat peculiar in appearance, and its groove is but rudely and irregularly formed.

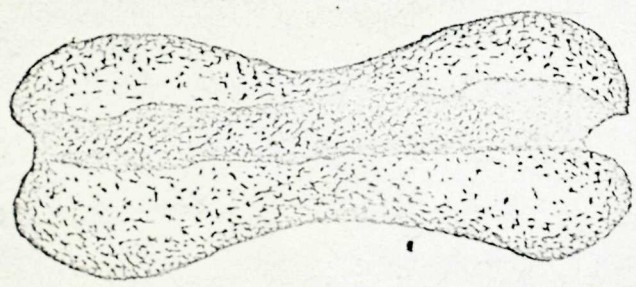

Fig. 42. ⅓ size.

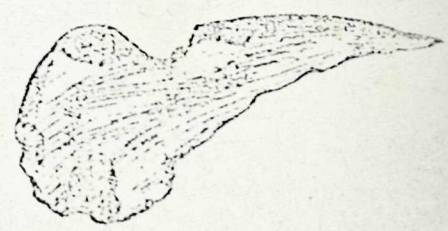

Fig. 43. ½ size.

The innocent-looking little piece of partly polished stone designed in fig. 43 was, in the hands of a Babine Indian, a rather treacherous weapon. It is the temple-lancet or skull-cracker * referred to above. After it had been securely hafted to a wooden handle three or four feet

* *Thol'toR.*

long, stone lancet and handle forming, when connected, a scythe-like implement, the warrior—or indeed assassin, as the case may have been—struck therewith his victim on the temple, oftentimes thus causing instant death.

Before bringing to a close this chapter devoted to stone implements, it may not be amiss to say a word concerning the art of stone chipping as practised by the prehistoric Dénés. I remember having read in a publication emanating from a learned society, an elaborate dissertation on this subject wherein the author took great pains to elucidate difficulties which to me appeared to be mainly of his own making. It may be that the rules of the craft varied with the localities and the material employed; but here, among the Western Dénés, there was no great mystery about the operation.

The material chosen in preference to fashion arrow or spear heads with was loose, broken pieces of the rock such as were found on the surface. Of course these were confined to a few localities only, wherein were situated sorts of quarries which were very jealously guarded against any person, even of the same tribe, whose right to a share in their contents was not fully established. A violation of this traditional law was often considered a *casus belli* between the co-clansmen of the trespasser and those of the proprietors of the quarry.

The first operation consisted in roughly blocking off with a hard stone the pieces of the flint, the removal of which was necessary to obtain a vague resemblance to the intended weapon. Then grasping the flint lengthwise with the closed fingers of the left hand (fig. 44), the arrow-smith carefully pressed off the flakes with an elongated stone held in his right hand, until the desired form and finish were obtained. A piece of buckskin served as a pad to protect the hand against the asperities of the point.

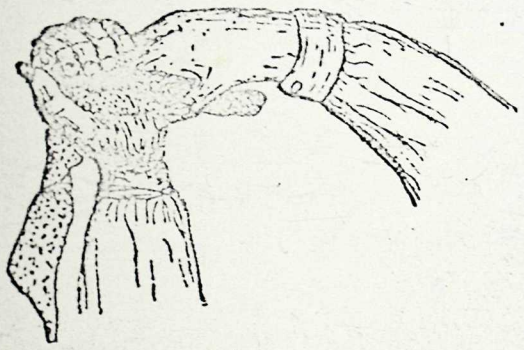

Fig. 44.

I owe these details to an old chief who has been an eye-witness to the operation. I should add that in not a few cases a moose molar tooth replaced the long chipping stone. I know also of a very few points the sharp edges of which have been polished off by friction.

CHAPTER IV.

BONE AND HORN IMPLEMENTS.

Several bone or horn objects formerly in use among the Western Dénés have already been mentioned in connection with stone implements of congenerous nature. As they were mostly weapons or working tools which have long been replaced by iron or steel substitutes, few of them could be illustrated from existing specimens. Such as will be found described in the present chapter are, however, still largely used by the natives, even of the Carrier tribe.

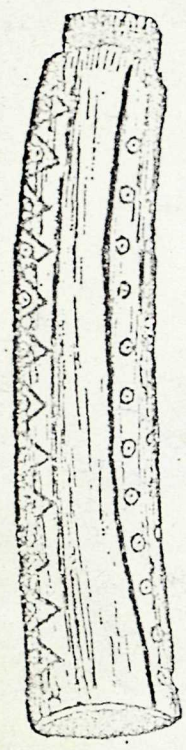

Fig. 45.

They are, with few exceptions, industrial implements. Among those which serve in connection with hunting or trapping, one of the most conspicuous is the *tsa-yu-thej* (beaver-medicine-recipient, or castoreum bottle). As will be seen further on, this same vessel is of birch bark among the Carriers. But the Tsé'kéhne, who are essentially huntsmen and whose country abounds in large game, make it out of a cariboo horn, and adorn (?) it with such primitive designs as may be noticed in fig. 45. Therein the trapper keeps the castoreum which he dilutes either on the steel trap, or in the mud contiguous thereto, in order to decoy the beaver into its ultimate capture.

Of course this mode of trapping is practicable only during the spring or summer months. In the winter, beaver is sought after with nets set in holes cut in the ice a short distance from the rodent's habitation and store. I have elsewhere given an account of this winter trapping which will, perhaps, bear reproduction here. "Once they have found his [the beaver's] lodge, an indispensable preliminary to secure his capture is to discover the exact location of his path or trail under ice. It appears that he follows well marked routes when swimming from, or returning to his winter quarters. These our Dénés easily find out by sounding the ice in different directions with cariboo horns. Their well exercised ears readily discover by a peculiar resonance of the ice where the rodent's usual path lies. So, at a given point, they cut a hole wherein they set their babiche beaver net,"* taking care to plant at a short distance a

* "The Western Dénés," etc., Proc. Can. Inst. vol. vii., p. 131.

stick the upper end of which is provided with little bells—the counterpart of the beaver nails and pebbles which did duty in prehistoric years. To this upright stick the side ropes of the net are attached in such a way as to be ready for use when the game is to be ensnared. "Then the hunter (should I not say fisher?) proceeds to demolish the beaver's lodge, in order to drive him off. Should the game not be found there the same operation is repeated at his adjoining provision store. When the undulations of the water tell of his presence therein, he is frightened away to where the net is set. Supposing that the beaver is swifter than his hunter and reaches the net before the latter, the efforts he will make to extricate himself therefrom will agitate the small bells before mentioned, and the hunter will immediately make for the hole and draw him out before he has time to cut himself clear of the net."*

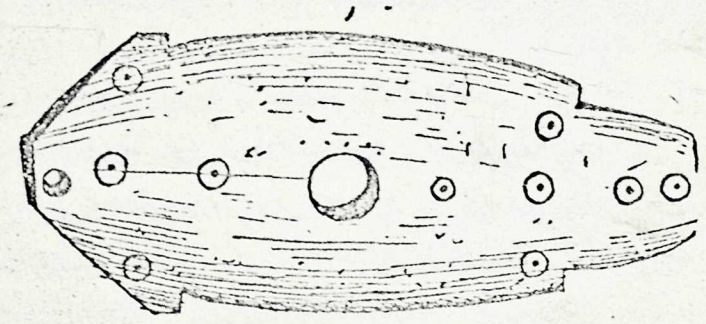

Fig. 46.

Fig. 46 represents the *mas*, a bone device indispensable to the efficiency of the beaver net. It is attached to the end of the net which is laid out at the opening in the ice wherein it floats on the water. The side strings of the net are passed through the centre hole of the bone piece (mas) and thence connected with the little bells at the top of the outstanding stick, so that by pulling them up, the farthest end of the net, which is under ice, will be drawn back to where the mas is secured, and thereby the game will be bagged, as it were, and speedily killed on the ice. These bone pieces affect divers forms, several of which are symbolical. Thus the mas shown above, is intended to represent a beaver. It will be remarked that the design is highly conventionalized. Yet, even a child (of Déné parentage, of course) will recognize at once its significance.

Barbed harpoons† such as those shown in the accompanying figures are resorted to when the Déné is out beaver hunting—not trapping or snaring,—that is in such cases as when the beaver is met with free of any trap or net. Until a short time ago those beaver harpoons were made of cariboo horn; but to-day implements of identical shape wrought out of steel files or pieces of iron have almost entirely superseded the

* *Ibid*, p. 132.

† *Zth-t'on*, "lip or barb-bone."

original horn weapon. To-day, as formerly, they are securely fastened to a handle three or four feet long, wherewith they are launched at the

Fig. 47. ½ size.

game much as would be done with a regular lance. The shaft is intended to secure greater impetus and efficiency to the weapon. The specimen illustrated by fig. 47 is a find, and is therefore more ancient

Fig. 48. ½ size.

than that shown in fig. 48 which is quite modern. A comparison between these implements and those of similar intent in use among widely different races of Indians all over North America cannot fail to elicit the remark that the same needs create the same means.*

In the act of dressing hides several bone or horn implements are still used among the Western Dénés. These are the fat-scraper, the hair-scraper, the bone-awl, and the skin-scraper.

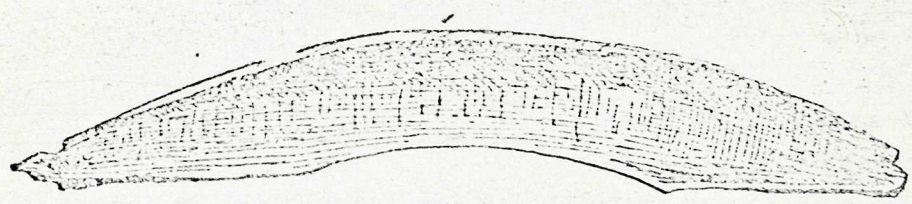

Fig 49.

The first† is made of a split cariboo horn (fig. 49) and, as its name indicates, it serves to scrape off the fat adhering to the fresh skin. This fat is received in the concave part of the implement and thence transferred to a bark vessel close by. In the form above delineated, it is more of a Tsé'kéhne than of a Carrier tool, and as such it does service more particularly in the treatment of marmot (*Arctomys monax* and *caligatus*) and wild goat (*Aplocerus montanus*) skins.

The Carrier equivalent therefor generally consists of the socket end of the shoulder blade of the cariboo, left almost in its natural state.

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* *See* Ann. Rep. Canad. Inst. 1888, p. 58, figs. 100, 101.

† *Pe-tha-atzo*, "wherewith the flesh-side is scraped" (of a liquid or fat substance): fourth category of nouns.

This implement is used in connection with grease or fat scraping of any description.

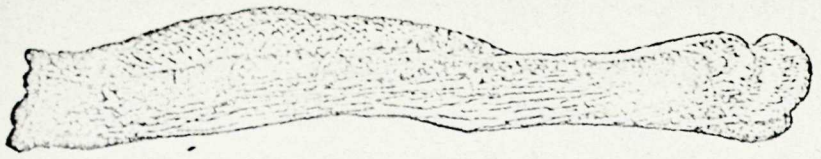

Fig. 50. ⅓ size.

Once the hide has been freed of most of its fat and blood, it is soaked in cold, and then in warm, water, after which one of its extremities is lashed up around the smaller end of a stout pole leaning on any kind of support, a wall, a fence, etc. The hair is then removed by energetic action on the skin hanging down over the pole with a scraper* formed of the tibia of a cariboo (fig. 50). By reason of the peculiar tenacity of the hair, moose skins are now operated on with a short curved steel knife. But the bone instrument shown above is still very extensively employed in connection with any other kind of hair scraping.

After having been thoroughly rubbed with the brain of the animal, its skin is next extended within a wooden frame as is practised by most tribes of Aborigines. The holes near the edges through which the line

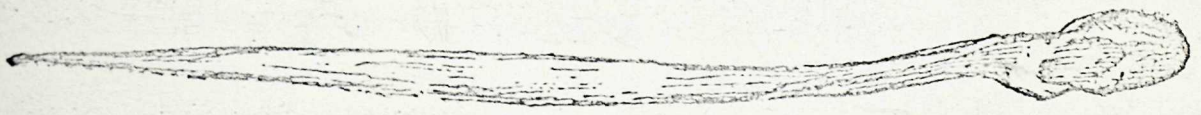

Fig. 51.

Fig. 52.

which fastens it to the frame is passed, were formerly and are still in some localities, pierced with bone awls† identical in form and material with those occasionally found in mounds. They are of the fibula bone of the cariboo, or, as in fig. 52, of the black bear. The latter are more common among the TsilKoh'tin. In times past such awls were resorted to whenever any skin or bark perforations, such as are incident to the art of canoe building or sewing bark vessels, were found necessary. They are now obsolete, steel having almost entirely replaced bone in the fabrication of any such tools. Yet the specimens illustrated above were in use among the Carriers and the TsilKoh'tin immediately prior to their being given me.

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* *Pe-na-ɔlqé*, "wherewith one scrapes off" (*i.e.*, hair); fourth category.

† *Ɣkwɔl-tsɔl*, "knee-bone awl"; third category.

The object in view while spreading the skin in its wooden frame is to remove its "mack" or inner cuticle. This is accomplished by means of bone scrapers,* which are everywhere essentially the same, but whose form or even material varies according to the tribe by which they are used.

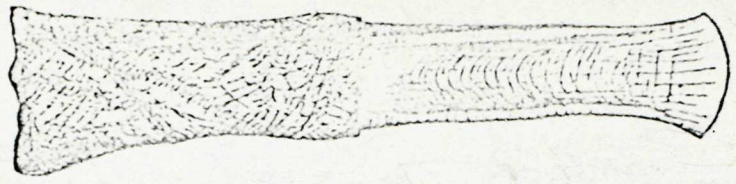


Fig. 53. ⅓ size.

Thus the TsiqKoh'tin scraper (Fig. 53) is of bear bone and wedge-like in form. The skin wrapping shown in the cut is quite often wanting.

Fig. 54. ½ size.

The Carrier scraper (Fig. 54) is of cariboo bone and shaped somewhat like a chisel. Its main peculiarity consists in the teeth cut in its edge to prevent its slipping too easily over the skin and ensure better gripping power. Identical implements are at times found as relics of extinct races in many parts of the northern American continent, and I still remember how the perplexity as to their probable destination evidenced through the lines of an antiquarian, who some years ago was describing one of them, brought home to me the advantages enjoyed, even from an archæological standpoint, by persons actually passing their life among the aborigines.

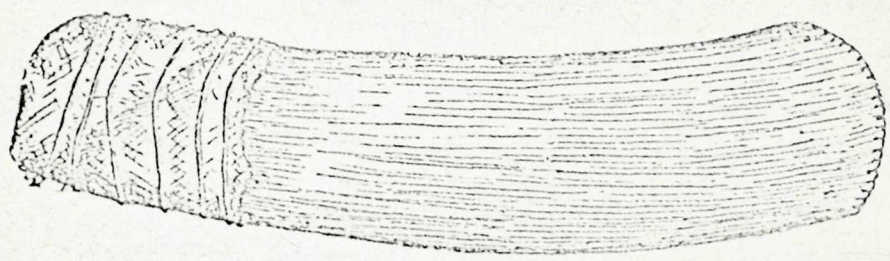


Fig. 55. ½ size.

Among the Tsé'kéhne the skin scrapers are of cariboo horn, thinned and reduced to the form of that delineated in fig. 55. A piece of buckskin wrapped around the end held in the hand facilitates the handling of that rather awkward implement. The serrated edge of the Carrier scraper is also reproduced by the Tsé'kéhne. Or indeed it is quite as likely that the Carriers have learned this peculiarity from the Tsé'kéhne, who in their turn have borrowed it from the Crees and other Algonquian

* *Ɂtha-nkwot*, "it scrapes (by pecking) the flesh side."

tribes of the East, all of which observe it in making their skins crapers, while the TsiɊKoh'tin, who are the most distantly situated from them, seem to be ignorant of it.

All of these scrapers also do service in the process of skinning animals as means of separating the hide from the flesh.

If we now pass from bone implements connected with hunting to such as are laid under contribution as means of furthering the fishing industry, we may note in the first place the *ta-krét* * or fish harpoon (fig.

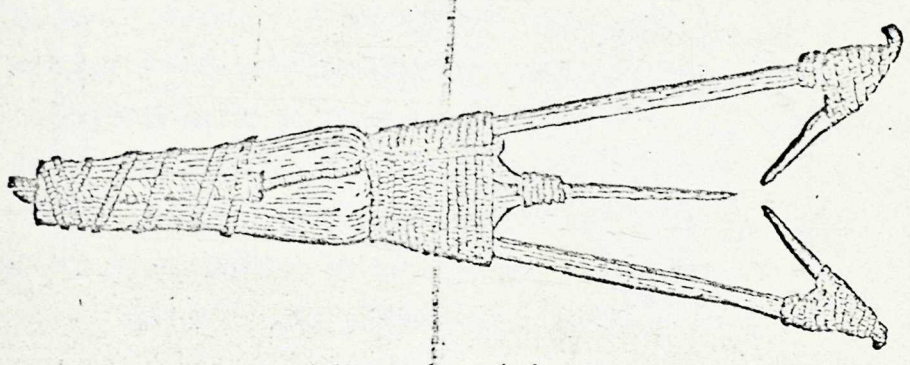


Fig. 56. ⅛ size.

56). The cut renders a detailed description of it unnecessary. The only wooden parts are the shaft and the socket, round which is wound the skin line which fastens the two side-hooks of the harpoon, while it secures in its proper place the middle prong. The hook pieces are fastened with sinew. An archæologist fond of comparisons cannot fail to notice the resemblance of this weapon to its Eskimo equivalent such as illustrated in fig. 453 of Dr. F. Boas' "The Central Eskimo."† The ta-krét serves to dart a large species of white-fleshed salmon (*Oncorrynchus chouicha*, Walbaum), called *kes* by the Carriers and *qes* by the TsiɊKoh'tin. Nowadays these implements are mostly of iron or steel; but their shape has remained unaltered.

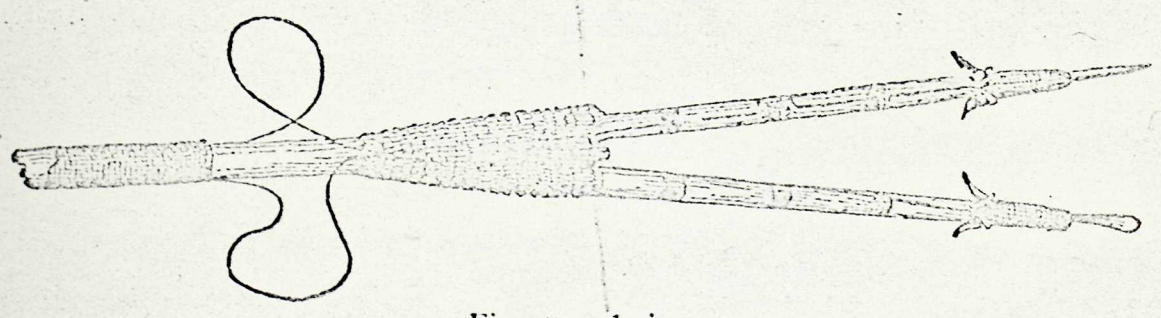


Fig. 57. ⅛ size.

The TsiɊKoh'tin spear salmon with a harpoon of a totally different pattern (fig. 57). It is double darted, and so made that upon fastening in the flesh of the fish, both darts detach themselves from the forked shaft, to

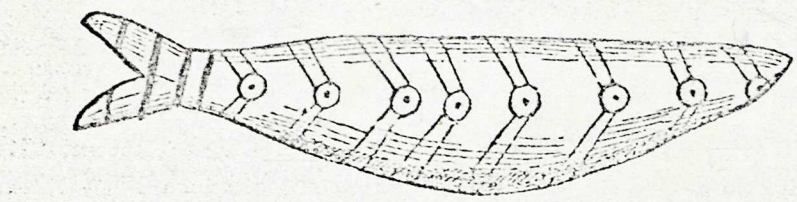
* "Lip-dart," by allusion to its mouth-like appearance.

† Sixth Ann. Rep. Bureau of Ethnology, 1884-85.

which they are secured by means of a plated raw-hide line. The whole detachable points of this implement were originally of mountain sheep horn; but in modern specimens the tip is generally of iron and occasionally of copper, the barbs only being of horn.

Both the Carrier and the TsiɂKoh'tin harpoons are hafted to shafts sometimes as much as 12 or 15 feet long, so as to render them serviceable from the top of rocks or precipitous river banks emerging from the rapids where that species of fish is wont to congregate.

Implements of that size are designed exclusively for salmon fishing. For smaller fish, besides the nets, which will be described in their proper place, the Carriers have recourse to a bone or steel harpoon of analogous model with that of fig. 56, but reduced in dimensions and hafted to a short handle. If in the winter time, bait is used as a means of attracting the fish. Having cut in the ice a hole of sufficient diameter to observe the movements of the trout underneath, the Carrier drops and gently



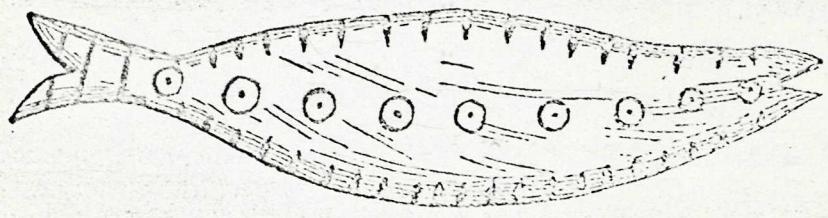


Fig. 58.

oscillates in the water bone imitations of Coregone fry (fig. 58), hanging through a sinew line from a wood or bone piece held in the left hand. Upon biting the bait, the fish is speedily speared with the above mentioned harpoon.

Here (fig. 59) we have a fishing implement which, though of a rather primitive style, yet requires but little explanation. The lancet or pin-like part of the hook* only is of bone, while the shank is of wood. This implement is drawn natural size. In remote localities, during hunting expeditions away in the woods, it is found to this day very serviceable.

A fishing device less modern in appearance is shown in fig. 60. It is called by the Carriers *thé-sateñ* a word which cannot be better translated than by "lying on the bottom," though the actual equivalent of that phrase would be *théR-ɔsthan*. A very small fish is used as bait and fastened in

* *Qɔs*; prim. root.

this wise to the implement; the whole of the bone pin including the sinew line to which it is attached is passed through the anal part of the fish

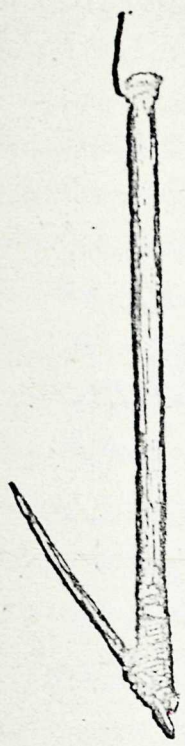


Fig. 59.

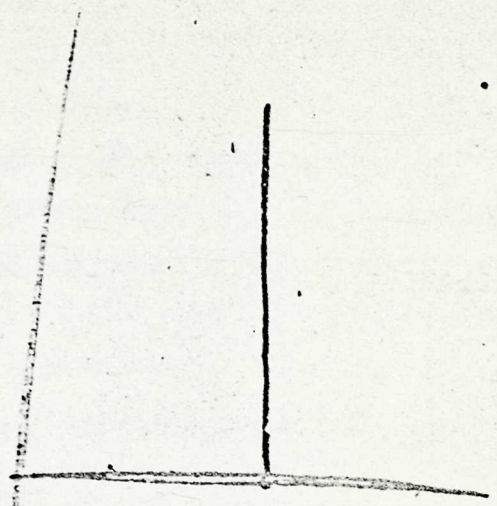


Fig. 60.

and then one-half of it is inserted lengthwise through the body of the fish commencing from the point of initial insertion of the sinew line to the head, after which the whole is dropped in the water and held as in the case of the bone coregone bait. The larger fish, generally the loche or turbot (*Lota maculosa*) which is very voracious, overlooks the other half of the implement left bare, and by gulping down the small fish gives warning to the fisherman, who instantly pulls up the whole, thereby sinking the bone pin in the gills of the large fish which is thus easily secured.

As a rule, the small end bones of the loon's wings, or occasionally even young beaver ribs, are the material chosen to make the two last mentioned implements. The same probably served also to fabricate the needles of the prehistoric Dénés. But none of them is now extant, and this may be a mere conjecture.

Before proceeding further, a word about the species of fishes more extensively sought after by the Carriers and the TsiɊoh'tin may not be out of place. They are of course very numerous, but king among them all is the salmon, and of the five species which are now known to ascend their rivers, the suck-eye (*Oncorhynchus nerka*, Walbaum) or *tha-llo** is by far the most important either on account of its economic value or of the prodigious numbers of its annual run. Next in abundance and

* "Water-fish."

importance as an article of diet is the large white flesh salmon or *kes* which has already been mentioned. These two species are common to most of the streams within Carrier, Babine and Tsiqkoh'tin territory, though the latter avoids not a few minor tributaries of the large rivers. One is particular to Babine lake and outlet—it is the hump-back salmon* (*O. gorbuscha*, Walb.) It is not of much value. The two other species, *thestlé*† and *ta-tzəR*‡ in Carrier are quite plentiful in such streams as discharge their waters through the Skeena river; but according to local observations they make their appearance in Stuart's Lake and immediate outlet only when the next run of the tha-llo is to be extraordinarily large. As far as I can judge the *thestlé* is the *O. keta* of Walbaum, such as described by Jordan and Gilbert;§ but I can find no specific name for the ta-tzəR, whose native name is an exact translation of the scientific word for all the Pacific Salmons: ὄγκος, hook; ῥυγχος, snout; Carrier: *ta*, snout (and lip); *tzəR*, hook.

To the above should be added the *késəl*‖ or land-locked salmon (*O. Kennerlyi*), which is much appreciated by the native palate and captured mainly with the help of fish traps or *'kuntzai*. It is however inferior in point of economic importance to the great lake trout (*Salvelinus namaycush*, Walb.) called *pît* by the Indians and which is extensively sought after either during the autumn months or the cold season. In the former case it is quite frequently dried and cured as the red salmon or thal o. The other trouts to be found in Déné lakes or rivers are the common trout (*Salmo purpuratus*, Pallas) and the bull trout (*Salvelinus malma*, Walb.) There are also two species of whitefish, the *Coregonus clupeiformis* (Mitch.) and the *Coregonus quadrilateralis* of Richardson, which in some localities are caught in such large quantities that many thousands are usually kept frozen for use during the winter.

The above are, of course, the best fish available here. But as the child of the forest has not always the choice of his diet, he must more often than once content himself with such carps or carpiodes, such suckers or catastomidæ as may chance to venture too near his drag-net. These seldom fail him. Their name is legion, and I will not be so rash as to attempt a nomenclature of them.

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* *Stam'ón*, a word which to a Déné ear appears quite foreign.

† A noun of the second category.

‡ "Lip (and snout)-hook."

§ Synopsis of the Fishes of North America by D. S. Jordan and Ch. H. Gilbert, Washington, 1882.

‖ Almost equivalent to "small *kes*" or white flesh salmon.

I did not mention the sturgeon (*Accipenser transmontanus*, Richardson), because, although it is a welcome visitor to our lakes, its visits are too rare and far between to entitle it to serious consideration in this connection. It is caught in large meshed nets.*

To join the two extremes, I will add to the sturgeon, the largest of our fresh water fishes, the *thę́mok*,† a very small fish which I think is not known to Ichthyology. It frequents a few little lakes only, and is taken with scoop-nets during the few mild days which usually interrupt the severity of our winters. The quantity of that fish brought home after one single afternoon's absence from the village is sometimes really enormous.

To be complete I should have noticed among bone implements serving fishing or trapping purposes, the *ɔté*,‡ or ice-breaker. This is, however, a mere pointed cariboo horn, which tends to disappear as a working tool, being gradually replaced by a piece of iron or steel, whenever this can be obtained.

There is a horn wedge which, even at the present day, serves to split the slender rods of which are made the *'kuntzai* or fish baskets, which shall be described in the chapter devoted to wood implements. As in most implements requiring hard material, cariboo horn is chosen to make these wedges.

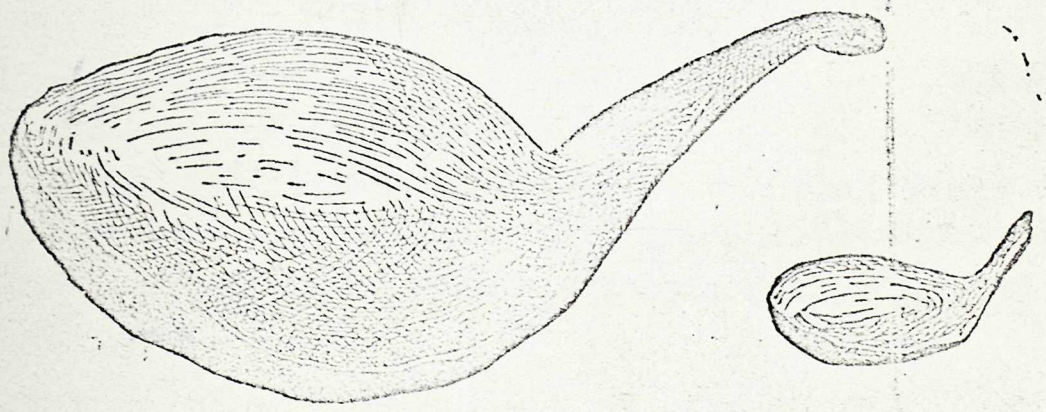

Fig. 62. ¼ size.

The above figure requires no explanation. A glance at the horn ladle

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* The Carrier name of the sturgeon is *ɟe-tco*, "big-fish."

† A root of the second category, the first syllable of which refers to the lake bottoms from which these fishes seem to suddenly emerge.

‡ *Ɂlé* means "horn," and is used to designate even steel ice-breakers. The ancient name for them is *tsoñtsiɳ* in Carrier which is evidently identical with the present *tsoroñtsiɳ* of the Tsiɳkoh'tin.

and spoon therein represented will show that our Western Dénés' handiwork is of a very poor grade indeed compared with that of the elaborately carved Haida, Tsimsian or Tlingit spoons. The only attempt at

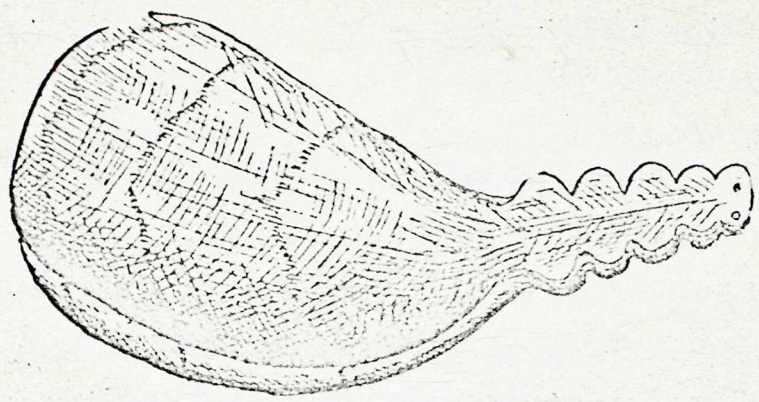

Fig. 63. ¼ size.

design or ornamentation of any kind appears in the Tsé'kéhne spoon or ladle (fig. 63). Genuine Carrier utensils of this class, which are either of wood or of horn, are even plainer than those above illustrated. Evidently our Dénés have no eye for the beautiful. In all cases of horn spoons the material is mountain sheep horn.

The manufacture of such household implements necessitates the possession of no extraordinary amount of skill. After the horn has been split in two equal halves, a spherical, smooth-surfaced stone is heated, and to expand the too contracted sides of the horn they are applied thereon and gently pressed out, a layer of pitch having previously been spread over the stone so as to give consistency to the material of the spoon and prevent its artificially distended parts from returning, when cooled, to their original shape. The finishing touches are then given with the carving knife.

Keeping within the same class of industrial bone implements, we come on the bark peelers* and the cambium scrapers.† Both of these are in great demand every recurring spring for the purpose of extracting for food the cambium layer of the shrub pine (*Pinus contorta*). Their name sufficiently describes their use. Below is the Carrier type of both peeler and scraper, which, it should be remarked, are oftentimes much larger than those after which fig. 64 has been drawn. In fig. 65 we have a double-edged scraper, which, though known among and sometimes used by the Carriers, is more frequently seen among the Tsé'kéhne. The various styles of these useful implements are all of cariboo horn. The

* *Enil'qŋ*, "it penetrates by tearing," a verbal noun.

† *Eltɔ*, "that which scrapes," verb. noun.

shavings like cambium thereby obtained is much relished by the natives,

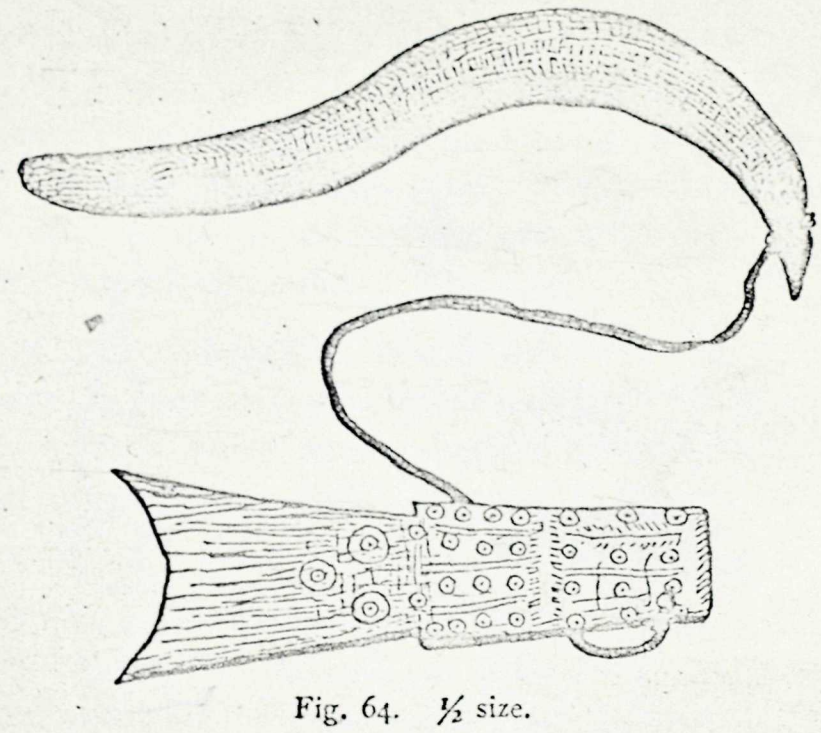

Fig. 64. ½ size.

who even collect it at times for the purpose of drying and keeping for use during the winter months.

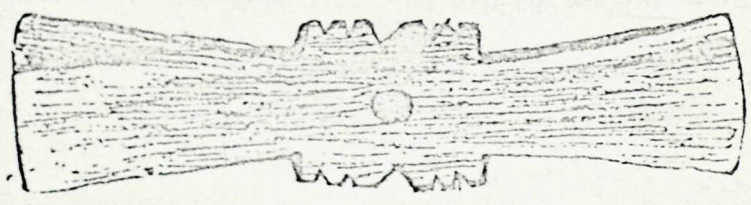

Fig. 65. ½ size.

If from the indispensable or useful we pass to the agreeable, the gambling sticks formerly used among our aborigines may claim our attention. Here, again, we find the elegantly-carved gambling sticks of the West Coast tribes replaced by simple polished pieces of lynx or other animal's bones without any particular design, and with the mere addition to one of the pair of the sinew wrapping necessary to determine the winning stick. The Babine specimens (fig. 66) are rather large and must prove awkward in the hand of the gambler. But they have the reputation of being preventive of dishonesty, if distinctions between the honest and the dishonest can be established in connection with such a pastime as gambling. Such of these trinkets as are hollow have generally both ends shut with a piece of wood, and contain minute pebbles and gravel which produce a gentle rattling sound in the hand of the native, much to his own satisfaction.

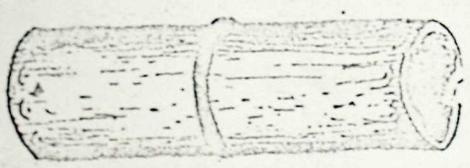

Fig. 66. ½ size.

Fig. 67 represents the TsiɊKoh'tin and fig. 68 the Tsé'kéhne equivalent of the Babine gambling sticks. It will be seen from the latter that the Tsé'kéhne, who are the most primitive and uncultured of the three tribes whose technology is under review, are again the only people who in this connection, as with regard to their spoons, have made the merest attempt at bone carving.

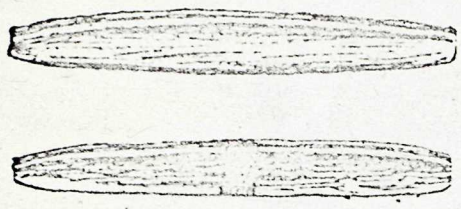

Fig. 67.

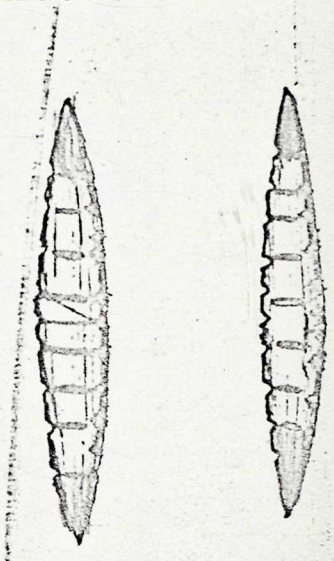

Fig. 68. ½ size.

The game played with these bone pieces is, I think, too well known to demand a description. The jerking movements and passes of hands of the party operating therewith, as well as the drum beating and the singing of the spectators or partners, are practised among most of the Indian races, especially of the Pacific Coast, which have occupied the attention of American ethnologists. The Abbé Petitot says in one of his latest publications* that this game is adventitious among the Eastern Dénés who have borrowed it from the Crees. This remark is no less apposite with regard to their kinsmen west of the Rocky Mountains. Although no other chance game possesses to-day so many charms for the frivolous Western Dénés, the old men assure me that it was formerly unknown among their fellow countrymen. That their testimony is based on fact, the very name of that game would seem to indicate, since it is a mere verb in the impersonal mood: *nət'sə·a*, "one keeps in the hand while moving," and is therefore of the fourth category of Déné nouns. The word for "gambling sticks," such as used in connection with nət'sə·a, is *nə'ta*, which is the same verb under the potential form and means "that which can be held in the hand." Any of the surrounding races, Tsimpsian, Salishan or Algonquin, may be held responsible for its introduction among the Western Dénés, for they are all exceedingly fond of it.

The original counterpart of the modern nət'sə·a was the *atlih*,† which

*I think it is in his book *En route pour la Mer Glaciale*, *Paris*, 1888.

†May be translated by "Gambling" in a general sense.

in times past was passionately played by the Carriers, but is now altogether forgotten except by a few elder men. It necessitated the use of a quantity of finely-polished bonesticks, perhaps four or five inches long, of which a correct idea may be gathered from fig. 336, illustrating Niblack's "The Indians of Southern Alaska."* These bones were called *altĕ*, a root word of the second category, implying much greater antiquity than that of the nə'ta

Speaking of atlih, a tradition which has some bearing thereon comes up for a share in the reader's consideration. If of no interest to the archæologist, it will serve a sociological purpose and may have the advantage of furnishing us with a *peinture de mœurs*, as the French have it. Here it is. †

"A young man was so fond of playing atlih that, after he had lost every part of his wearing apparel, he went so far as to gamble away his very wife and children. Disgusted at his conduct, his fellow villagers turned away from him and migrated to another spot of the forest, taking along all their belongings, and carefully extinguishing the fire of every lodge so that he might perish.

"Now this happened in winter time. Reduced to this sad fate, and in a state of complete nakedness, the young man searched every fireplace in the hope of finding some bits of burning cinders, but to no purpose. He then took the dry grass on which his fellow villagers had been resting every night and roughly weaved it into some sort of a garment to cover his nakedness.

"Yęt without fire or food he could not live. So he went off in despair without snow-shoes, expecting death in the midst of his wanderings.

"After journeying some time, as he was half frozen and dying of hunger, he suddenly caught sight in the top of the tall spruces of a glimmer as that of a far-off fire. Groping his way thither, he soon perceived sparks flying out of two columns of smoke; and cautiously approaching he came upon a large lodge covered with branches of conifers. He peeped through a chink and saw nobody but an old man sitting by one of two large fires burning in the lodge.

"Immediately the old man cried out: 'Come in, my son-in-law!' The young man was much astonished, inasmuch as he could see nobody outside but himself. 'Come in, my son-in-law; what are you doing out

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* Rep. U. S. Museum, 1888, plate lxiii.

† It must be remarked that in the version the most in vogue among the Carriers, the beginning of this legend is very different from that adopted here after Julian *Ɣletsá-niya* (he walks ahead) of this place, Stuart's Lake.

in the cold?' came again from the lodge. Whereupon the gambler ascertained that it was himself who was thus addressed. Therefore he timidly entered, and, following his host's suggestion, he set to warm himself by one of the fires.

"The old man was called *Nə-yəʀ-hwolluz* * because, being no other than Yihta,† he nightly carries his house about in the course of his travellings. 'You seem very miserable, my son-in-law; take this up,' he said to his guest while putting mantlewise on the young man's shoulders a robe of sewn marmot skins. He next handed him a pair of tanned skin mocassins and ornamented leggings of the same material. He then called out: 'My daughter, roast by the fireside something to eat for your husband—he must be hungry.' Hearing which, the gambler, who had thought himself alone with Nə-yəʀ-hwolluz, was much surprised to see a beautiful virgin‡ emerge from one of the corner provision and goods stores§ and proceed to prepare a repast for him.

"Meanwhile, the old man was digging a hole in the ashes, whence he brought out a whole black bear cooked under the fire with skin and hair on. Pressing with his fingers the brim of the hole made by the arrow, he took the bear up to his guest's lips, saying: 'Suck out the grease, my son-in-law.' The latter was so exhausted by fatigue that he could drink but a little of the warm liquid, which caused his host to exclaim: 'How small-bellied my son-in-law is!' Then the old man went to the second fireplace, likewise dug out therefrom a whole bear and made his guest drink in the same way with the same result accompanied by a similar remark.

"After they had eaten, NəyəʀHwolluz showed the gambler to his resting place and cautioned him not to go out during the night. As for himself, he was soon noticed to leave the lodge that and every other night; and, as he came back in the morning, he invariably seemed to be quite heated and looked as one who has travelled a very great distance.

"The gambler lived there happily with his new wife for some months. But his former passion soon revived. As spring came back, he would take some alté in an absent-minded way and set out to play therewith all alone. Which seeing, his father-in-law said to him: 'If you feel

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* Lit. "he-carries (as with a sleigh)-a-house." The final *hwolluz* is proper to the dialect of the Lower Carriers, though the tale is narrated by an Upper Carrier, which circumstance would seem to indicate that the legend is not; as so many others, borrowed from a Tsimpsian tribe.

† *Ursa major.*

‡ *Sak-ɔ̀sta*, "She sits apart."

§ See the Chapter on the Dénè habitations.

lonesome here, my son-in-law, return for a while to your own folks and gamble with them.' Then handing him a set of alté and four *tətquh*,* he added: 'When you have won all that is worth winning, throw your tətquh up over the roof of the house, and come back immediately. Also remember not to speak to your former wife.'

"The gambler then made his departure, and was soon again among the people who had abandoned him. He was now a handsome and well-dressed young man, and soon finding partners for his game he stripped them of all their belongings, after which he threw his tətquh over the roof of the lodge. He also met his former wife as she was coming from drawing water, and, though she entreated him to take her back to wife again, he hardened his heart and did not know her.†

"Yet, instead of returning immediately after he had thrown his tətquh over the roof, as he had been directed to do, his passion for atlih betrayed him into playing again, when he lost all he had won. He was thus reduced to his first state of wretched nakedness. He then thought of NəyəRhwolluz, of his new wife and his new home, and attempted to return to them, but he could never find them."

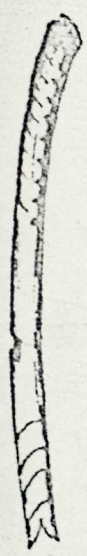

Fig. 69. ¼ size.

A third chance game was proper to the women and was played with button-like pieces of bone. It was based on the same principle as dice, and, in common with atlih, it has long fallen into disuse. Its name is *atiyéh*.

The three bone implements which remain to be described have likewise disappeared from among the Carriers to whom they were proper. Thus fig. 69 shows a *tél̨ni* or ceremonial whistle, which could not at present be identified by one-twentieth of the living Carrier population. It is made of the larger wing bone of the swan, notched near, and slit at, one end exactly as shown in the above figure and without the insertion of any mouth-piece. On great ceremonial occasions, the notable or native nobleman, who was privileged to accompany his dance therewith, kept it constantly in his mouth unsupported by the hand, and from time to time extracted therefrom loud, shrill notes, which added not a little to the liveliness of the scene.

The object represented by fig. 70 differs but little from the preceding, the material being identical and the form almost so. But its use and destination are widely different. It is a *t'sən-'kuz* or "bone-tube"

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* A long throwing rod which serves to play another game. It will be figured and explained further on.

† In the biblical sense of *Cognovit*.

through which Carrier and Babine girls attaining the age of puberty had to drink under pain, it was said, of contracting dreadful throat diseases should they attempt to quench their thirst by helping themselves im-

Fig. 70. ½ size.

mediately from the water vessel as was done by common folks. This trinket was constantly carried about, hanging from the sinew and down necklace usually encircling the neck of such pubescent maidens, also as a specific against malign influences.

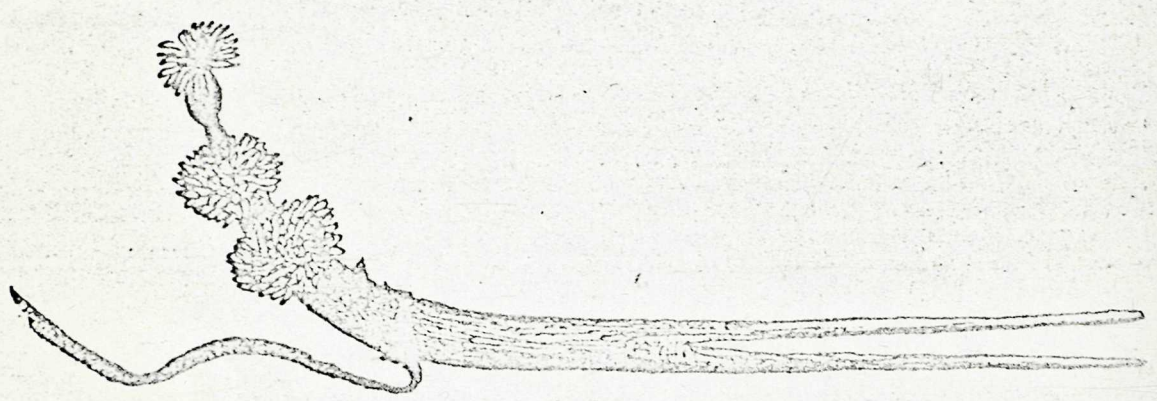

Fig. 71. ½ size.

Closely connected therewith was the double-pronged comb shown in fig. 71. It was worn in the hair and likewise connected with the medicinal (?) necklace through a long, loosely-hanging string adorned with beads, or, in primordial times, dentalium shells or other small articles of native ornament. Its use was not restricted to pubescent girls, but this comb or *tsi-ltsɔt*,* as it was called, was also common to young men attaining maturity. It should perhaps be remarked that in this latter case the instrument was of wood, not of bone. "Comb" is rather a misnomer when applied to such an object which served merely to scratch one's head with, as immediate contact between the fingers and the head was then reputed productive of fatal diseases.

Apropos of diseases it may be mentioned that bleeding as a surgical operation was, and still is, frequently resorted to by our Western Dénés. So far as my information goes, there was in pristine times no surgical instrument such as an equivalent of our lancet employed in this con-

* "Head-scratches," verb. noun.

nection. It would seem that the operation was formerly performed either with a bone needle or awl, or more commonly with a sharp-edged stone arrow head.

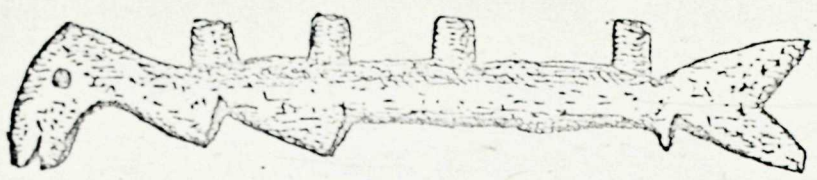

Fig. 72.

Fig. 72 illustrates the change brought in the native huntsman's economy by modern civilization. It is a little piece of bone carved to the shape of a fantastic being, half animal (viz. coyote), half fish, on the back of which little excrescences have been left, the object of which is to hold as many metallic caps for use with a shot gun. This little trinket is fastened to the string of the powder-horn or to that of the shot pouch. It is more commonly cut out of a piece of thick leather without any attempt at design.

CHAPTER V.

TRAPS AND SNARES.

FISH TRAPS.

Judged by their staple food, the Carriers and the TsiɂKoh'tin are maritime or coast tribes, since they mostly rely upon the annual run of salmon for their sustenance during the whole year. But, owing to the topography of their country and their peculiar environments, their mode of securing their supply of the fish materially differs from that adopted by the coast Indians. Nay more, even among themselves the process varies according to the localities and the nature of the fish stream. It may be broadly stated that at least seven different devices are resorted to, which I shall presently endeavour to explain.

In the first place one should not forget that the salmon almost exclusively referred to in the present paragraph, that on which the two tribes named above mainly subsist, is the so-called Fraser River salmon (*Oncorhynchus nerka*, Walbaum). It is exceedingly gregarious in habits and usually plentiful. As will soon be seen, these two peculiarities are taken occasion of by the natives to facilitate its capture.

Where it is practicable the Kamstkadals' method of salmon-fishing is followed. This consists in staking across the river in its whole width and leaving for the fish only narrow passages ending in long, funnel-shaped baskets from which escape is impossible. Owing to the importance of this industry, some detailed explanation of the whole process will not be out of place.

At intervals of forty or fifty feet heavy posts are driven as solidly as possible in the bed of the stream from shore to shore, and on these will depend the strength of the whole structure. As an additional guarantee against the action of the current, as many props or braces are sunk slanting down stream and secured against the upright posts close to the water line. In this and all similar cases the fastening material consists of willow, high cranberry bush or spruce sapling wattle. Finally, heavy poles, as long as can be found, are laid transversely on the forks formed by the intersection of the piles with their props, and the result constitutes what may be called the skeleton of the weir. The intervals between the upright posts are afterwards filled in by poles driven down in the bed of the river, and as these are placed on the upstream side of the

long railing already mentioned, no artificial fastening therewith is required. The weir is then ready to receive the fishing apparatus, which consists of the hurdles,* the bottle-like baskets *nazrwət*† and the narrow terminal baskets, Kas.‡

The hurdles are made of different sizes, according to the place they are to occupy. They are simply barkless spruce switches, held slightly apart by a few transversal sticks laid against, not entwined with, the trellis work, and there secured by being wattled with wattup or spruce root. The larger number of these hurdles serve to line the upstream side of the weir, thereby closing every possible issue through it, while with the rest are constructed corral-like enclosures guarding the mouth of the baskets, as shown in the accompanying diagram (fig. 73). The

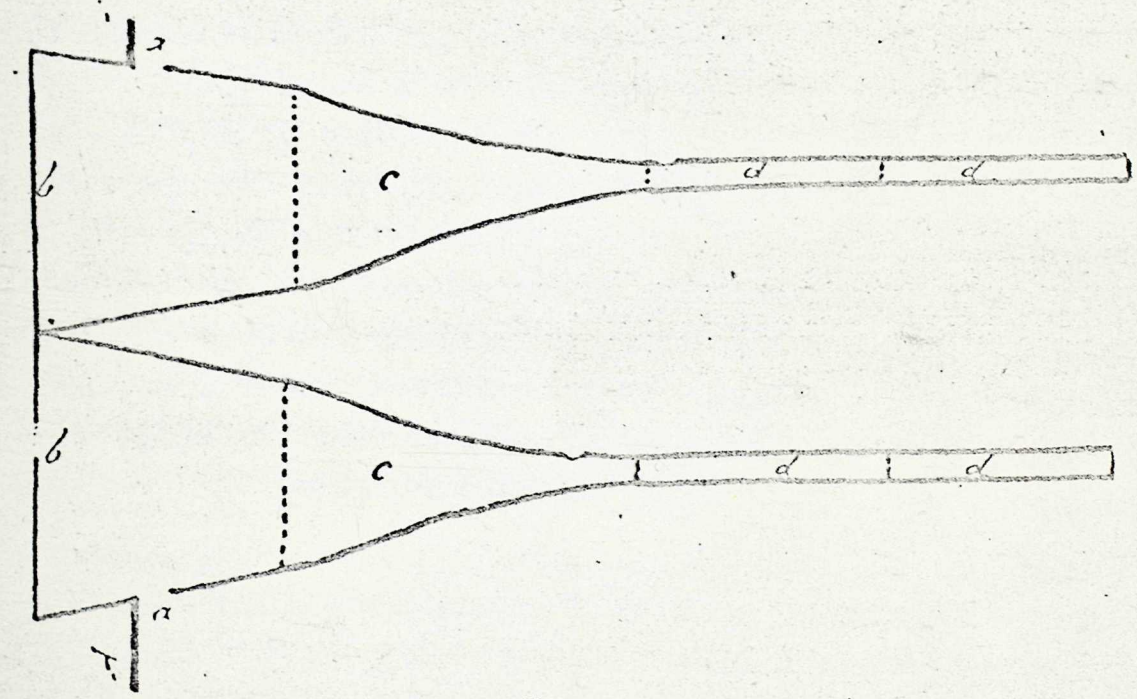

Fig. 73.

entrance to these corrals, and therefore to the trap, is at *a*, and is generally half a foot wide. *A* stand for parts of the barrier or weir. The salmon upon stealing in finds its way up blocked at *b*, and by a sidewise evolution comes in sight of the long conduit prepared for it in the shape of the nazrwət or main basket *c*, together with the narrow terminal cylinders *d*. With a view of liberating itself from the hurdle enclosure, it swims down as far as the terminal cylinders, which, being too narrow to permit of its turning back, thus determine its capture. Others following will soon pack even the broader end of the nazrwət to such an extent that oftentimes no moving room is left. The dotted outlines in

* *ʔcə-stʃu*, a contraction of *tcən-stʃu*, "stick-twined."

† A contraction of *nanɬzrwət*, "cylindrical at the mouth (and long in body)."

‡ Prim. root. Means any long, slender and smooth-surfaced appendage, as a handle, a stem. So named because it is considered as the handle of the funnel-like basket or *nazrwət*.

the above diagram represent the end of each basket which, it is useless to add, is left opened so as to afford a free passage for the fish. Such traps are generally constructed in pairs as is shown above.

Instead of shutting with trellis work the furthest end of the last Kəs or narrow cylinder, some add thereto a large rectangular box-like reservoir provided with a conical conduit or entrance (fig. 74) tapering into the box so as to preclude the possibility of the fish escaping once it has entered and found the liberty of movements it lacked while in the narrow baskets. Therein the salmon crowd in such numbers that they soon get packed as sardines in a box and finally squeeze themselves to death.*

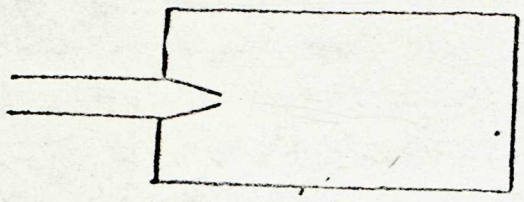

Fig. 74.

Fig. 75.

This trap is efficient at night only, and when the large terminal basket just mentioned is wanting, the nazrwət has to be watched lest the fish remaining at its mouth eventually make good their escape. At least two Indians go every morning and lift up with wooden hooks (fig. 75) such parts of the trap as cannot easily be reached by the hand and carefully empty its contents into their canoe. The Kəs are but temporarily connected, being detachable at will Two or three, or in extreme cases as many as four, are ordinarily added to the nazrwət.

The nazrwət measures at least 15 feet in length and as much as 6 or 8 feet in its greatest width,† while its narrow end is not more than 6 inches wide. Uniform with the latter is the Kəs, which is of variable length, 10 feet being probably the minimum and 16 the maximum.

Clear pieces of Douglas fir *(Pinus murrayana)* are the material chosen in the preparation of these fish traps and of all those which remain to describe. Once a suitable fir trunk has been split into portable sizes the wood is allowed to remain a few days in the water, after which it is converted with the help of the bone wedge (fig. 75 *bis*) into long and very slender rods which are then shaved smooth with the knife and assigned to their respective places in the structure. The encircling pieces are of spruce (*Abies nigra*) and are wattled to the longitudinal rods with the usual wattup or spruce root.

Fig. 75 *bis*.

* These reservoirs are called *yuta-sKai*, a contraction of *yutat-sKai*, "it (recipient) lies down stream."

† This, of course, varies with the depth of the stream.

The nazrwət and its correlative, the Kɔs, are exclusively designed for the capture of the salmon. A second fishing device, less restricted in its use, is the *'kûn-tsai.** It works on the same principle as the *yutasKai* or terminal fish-box. It is a large cylindrical basket about 15 feet long and at least four in diameter. Its bottom end is made of sticks radiating from the centre, while its entrance is provided with the tapering conduit or "heart," as it is called by the natives, which we have already noticed in the *yutasKai*. Only in this case it is much longer, since the apex or inside end of the truncated cone-like aperture reaches almost to the middle of the whole basket. To make the safe keeping of the fish doubly sure, the converging sticks of this inner conduit are made to project inside beyond the small hoop to which they are fastened. These pin-like stick-ends easily dissuade the fish from trying to escape.

The 'kûntzai was formerly used in connection with beaver trapping, and to-day it does duty in several localities against the musk-rat. In such a case the lattice work is made of sticks so broad as to resemble laths more than rods, while the interstices between its component parts are so small that they leave no room for the rodent's snout should it attempt to gnaw off pieces of it. As an additional measure of safety for the trap, stones are also scattered on its bottom, upon which the game is said to direct its attention in the hope of effecting its escape. When used as a trapping implement these baskets are laid in the bed of sluggish rivers or creeks previously jammed with branches and boughs of coniferous trees.

But what we are presently concerned with is fish trapping. The 'kûntzai are used here (Stuart's Lake) in conjunction with the nazrwət. They are likewise deposited in the bed of the stream, but with their mouth or entrance end in inverse positions relatively to the direction of the current. I think that no words of mine can better explain their use and respective positions than the accompanying diagram showing both nazrwət and 'kûntzai weirs with their hurdle corrals and baskets. *A* is the 'kûntzai weir which is semicircular and extends to the middle of the stream only. For this reason, though it is built on the same principle of piles and braces as that of the nazrwət, the necessary strength is more easily obtained. Its shape precludes the possibility of being latticed as the former, yet every issue is carefully stuffed with spruce boughs *B* and *C* alone are regular hurdles similar to those forming the corrals of the main or up stream barrier. *D* represents a partial trellis left open at the proper intervals to receive the mouth of the 'kûntzai *c*, which are laid

* Apparently a contraction of *s'kûn-estzai*, "fish-ova are lying down," which etymology is hard to explain, since those fishing implements have (*now* at least) no relation to fish ova.

down in parallel order to the number sometimes of ten or twelve. Immediately facing the row of basket entrances a large beam *F*, hewn on the upper side only, partly floats on the water and is partly supported on the forks of piles driven in the bed of the river.

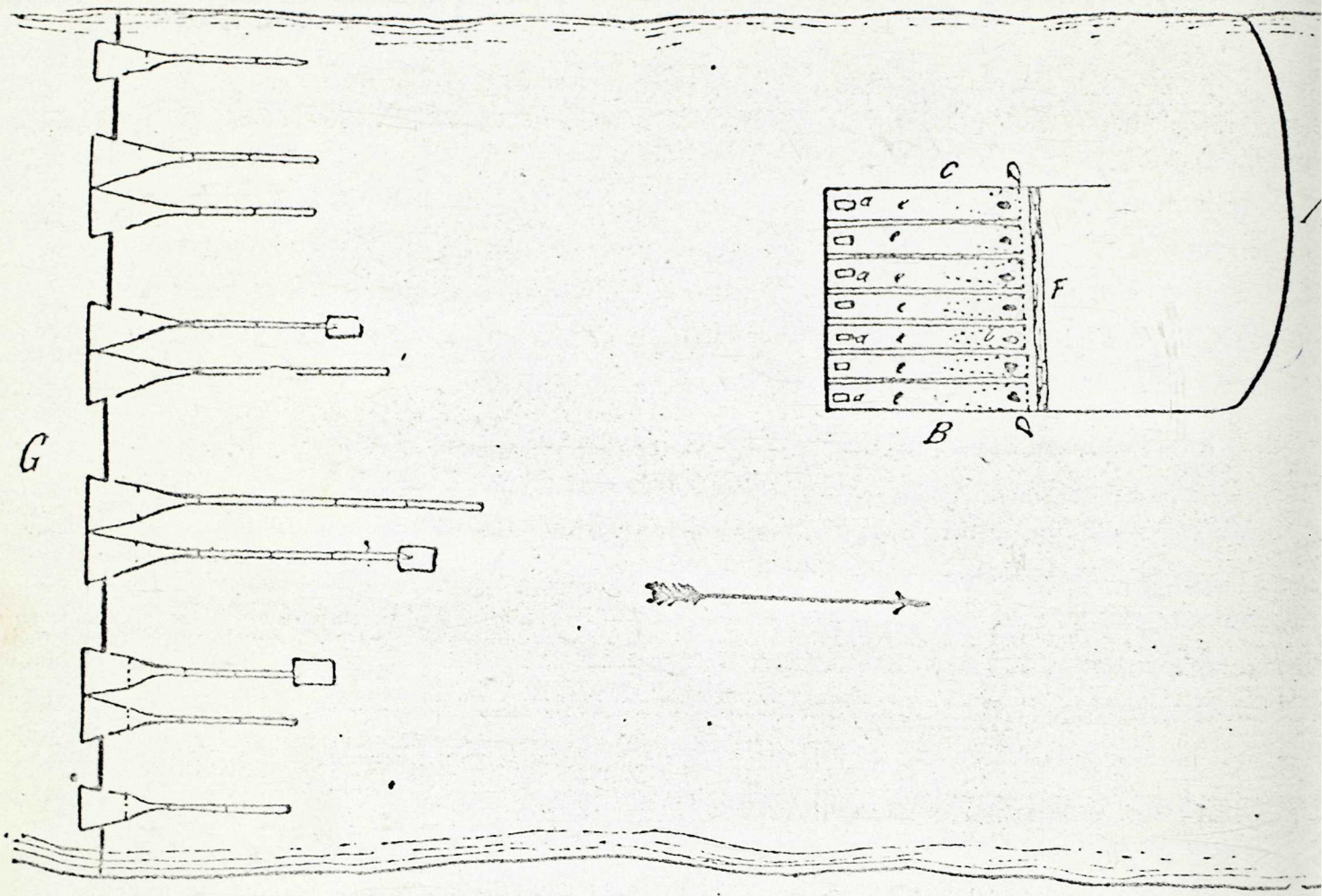

Fig. 76.

So much for the apparatus. Now as to its working. The fish, which is constantly following its way up stream finding any further progress impeded by the staking across the river *G*, remains there almost stationary during the day feeling shy of the nazrwət traps prepared for its capture at night. So it frequently happens that within the space intervening between the complete and the partial weirs large numbers of the fish have congregated ere the sun sets. Therefore natives, manning as many canoes as are available, drive it by dint of noise and by well directed strokes in the water, first into the corral *A*, *D*, *F*, and then to the cylindrical baskets wherewith it is secured. Then, at a given signal, one man from each canoe jumps on the beam *F*, and lifts up the entrance end of the baskets as a precaution against the possible egress of a few fish, while his partner returns by canoe to the opposite end of the trap to empty it of its contents. A lid or door *a* there prepared on the top side of the trap facilitates that operation. The lifting up of the 'kûntzai at the entrance extremity is the work of but a moment, inasmuch as it

chiefly results from the dropping in the water of the large stone *b*, which keeps it sunk to the proper depth.

Both the nazrwət and the 'kûntzai are serviceable in such places only as the outlet of lakes or shallow streams where the current is slow enough to permit of the erection of the necessary weir. Where this is impossible, a third and even more ingenious device—since once it is placed in position, it does all the work of itself—is resorted to. Lattice work projecting a few feet only from the shore is erected in the water, connected wherewith is laid on the bottom a tobogan-like basket with an opening near its curved end. The fish passes through this into an uncovered canal-like conduit leading into a large latticed reservoir where it is caught. The apparatus becomes more intelligible by a glance at fig. 76 wherein we have a sectional view of the whole. The lines marked

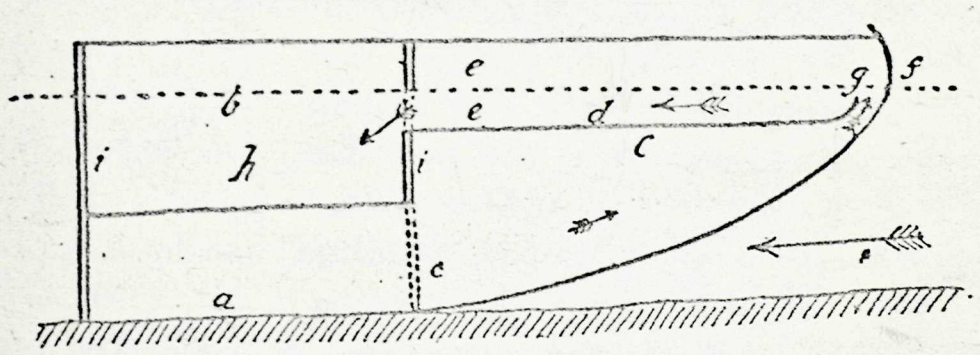

Fig. 76.

a, and *b* show respectively the bottom and the surface of the water. The upper part of the entrance basket *c* is flat and serves at the same time as a bed for the canal *d* which is formed by the addition of two long hurdles *e* on either side of the main or lower basket top. The salmon having entered at *c* soon finds its way upstream blocked at *f*, where the basket is rather narrow. But, as its instinct is decidedly against the wisdom of a backward course, as soon as it becomes aware of the free passage prepared at *g*, therein it runs and thence to the trap *h* laid out for its capture. *i* stands for one of the stakes which hold up the trap or reservoir while they secure the whole structure against the action of the current.

This fish-trap is called *əs*, and it does also good service against the land-locked salmon and other minor fish, such as trout, ling, etc., in such streams as are favored with a strong current.

Where the river is of a more sluggish character, a fourth device, called *we*, is resorted to. Though differently constructed, it works on the same principle as the preceding. Its use requires the building of a regular weir or staking across the entire width of the stream, and several such traps are laid out, side by side, pretty much as is done with the nazrwət.

The diagram fig. 77 gives a longitudinal section of this fishing contrivance, which, after the details furnished above, hardly needs a word of explanation. It suffices to follow the smaller arrows of the figure to understand the movements and account for the capture of the fish. Let me simply add that all the component parts of this trap are originally distinct and separate. They are merely kept in their proper place by means of willow bark wattlings.*

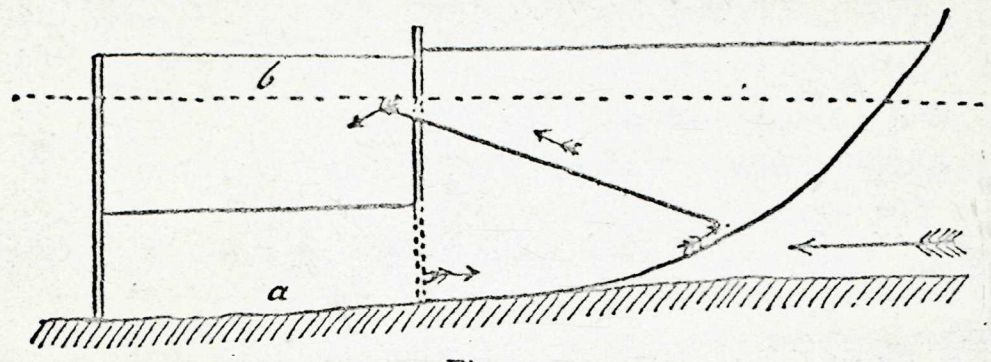

Fig. 77.

Less complicated than any of the preceding fish-traps is the *thé-sKai* (laid down on the bottom), which is also of latticed work and whose general appearance cannot be better described than by comparing it to a coffin (fig. 78). Its catching device consists of a sort of trap-door attached on the inside to the top of one end and slanting down until it almost touches the bottom of the box-like apparatus. This door is so arranged that it slightly yields up to pressure from the fish and shuts down on it once it has entered. The thés-Kai is used in shallow streams only.

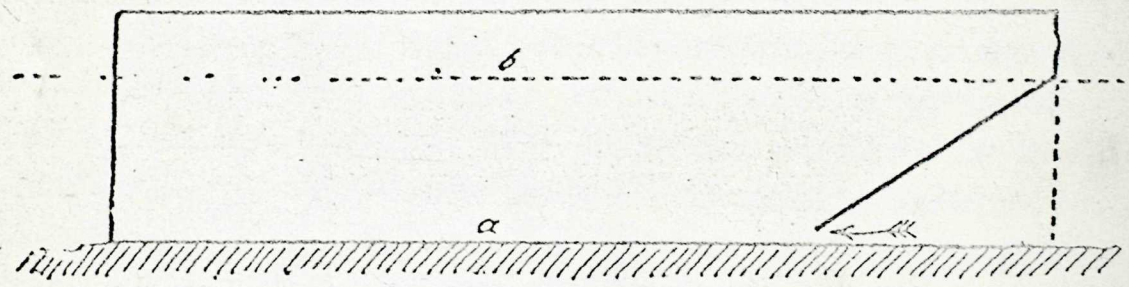

Fig. 78.

A sixth method of salmon fishing which is likewise practicable in a few localities only is that wherewith a *to-sKai*,† or pot hanger basket has to be employed. "In some places where the stream contracts to an insignificant width and, in escaping from its rocky embankment, produces a fall deep enough to temporarily impede the salmon's course upwards

* In the accompanying diagrams, the smaller or inner arrows show the course of the fish, while the larger ones point to the direction of the current.

† A contraction for *to-ɔsKai*, "it (a recipient) stands up."

the Carriers simply bridge the fall over and with bark ropes suspend therefrom a sort of lattice, seven or eight feet wide, the lower extremity of which is curved up like a pot hanger (fig. 79). When the fish attempts to jump over the fall, he strikes the latticed barrier and drops back into the basket-like bottom."*

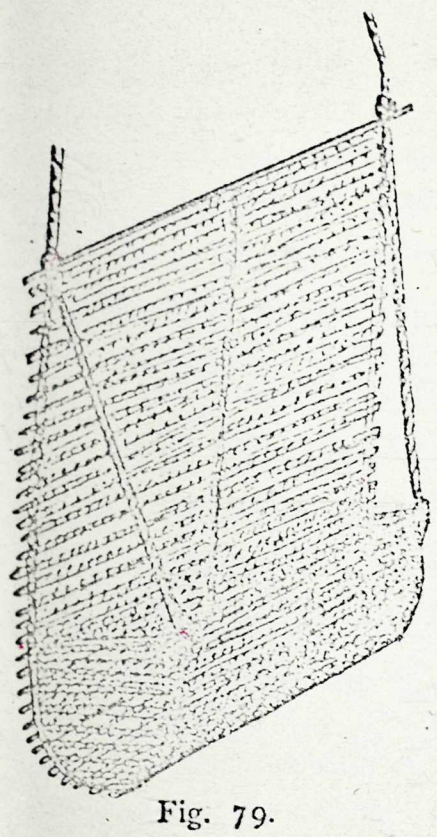

Fig. 79.

Lastly, where none of the above described modes of capturing the salmon are available, the Carrier or TsiɣKoh'tin has still a seventh expedient, more inconvenient and less profitable it is true, left at his disposal. This is fishing with the bag-net (fig. 152). Unless the run of salmon be exceptionally large, this method is rather tedious, and either dire necessity or the passion of a sportsman only can be adduced as an excuse for this kind of fishing, inasmuch as it is impracticable except at night. I still remember coming up some ten years ago, the mighty Fraser then swollen up to the brim by the July freshets. As we were making very poor time painfully poling up stream, I had resolved to profit by a beautiful moonlight to compensate by night boating what we necessarily lost on account of the slowness of our progress during the day. As we neared the Indian village we were making for, we frequently sighted from a distance human forms standing motionless on every available rocky promontory projecting into the river. Upon approaching them, we would perceive that they were intently gazing on one spot in the water, and when questioned as to their success, their almost invariable answer would be: *Sukrak! thallo hulɘR!* "Not a bit; there is no salmon.!" They were bag-net fishing.

Where the natural rocky projections are not pronounced enough wharf-like scaffoldings are erected for the convenience of the fishermen. Some such are to be seen on the HwotsotsənKwah which evidence no mean engineering capabilities.

In describing the Déné fishing contrivances, I have occasionally used the foot measure as the best, because the most common, means of determining their dimensions. Useless to say that this is not the recognized standard of length measure among the natives. Before proceeding further, it may not be irrelevant to enumerate their various measures.

* The Western Dénés, p. 129.

They are :—

1. *Horwə-thisni*,* the fathom, measured from end to end of the arms extended.

2. *Ne-tayo*,† the half-fathom ; from the middle of the chest to the tip of the fingers.

3. *Ne-t'sû-'kət*,‡ the smaller half-fathom ; from the breast to the extremity of the hand.

4. *Ne-kran-'kəz*,‖ the yard ; from the shoulder to the end of the fingers.

5. *Ne-t'silla*,§ the cubit ; extremity of the hand to the elbow.

6. *Ne-lla-tcən-'kəR*,** the hand-length ; the hand up to the wrist.

7. *Tîltzə*R,†† is the width of the fourfing ers slightly stretched out. It is a net-mesh measure.

8. *U-'kwə-sthan*,‡‡ the finger-width. It is obtained by laying on the object measured as many fingers pressed together as may be necessary. It is the smallest Déné measure, and is resorted to in connection with pieces of tobacco, of bread, of costly cloth, etc.

The largest and most commonly employed is the first named, *horwə-thisni*, which serves to measure houses, fish-traps, nets, logs, etc.

Another measure of length of a more complex nature is obtained by pressing one hand over the breast and reckoning from the tip of the other hand to the elbow of the folded arm. It is therefore equivalent to three-quarters of a fathom.

To preserve their salmon the Carriers and TsiɬKoh'tin have recourse to the well known method of drying. After the head has been cut off, they open and clean the fish, after which they expose it for one day or two to the rays of the sun. The spine and vertebrae are then extracted, together with the flesh adhering thereto, which is destined for the dogs' larder or used as bait when trapping. The fish is next furrowed inside with a sharp knife as a precaution against putrefaction, and, two wooden splinters having been driven through the flesh so as to keep its inside constantly opened, it is dried beneath rough sheds by the action of the sun and air aided by the fire and smoke underneath.

As for the heads, which are considered by many as the *morceau délicat* of the salmon, they are cut open and smoked or their oil is extracted in this wise : After long willow twigs have been spitted through them, they

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* Lit. "along it it is embraced ;" verb. noun.
† "Man-chest."
‡ "Man-breast-on."
‖ "Man-arms-half."
§ "Man-elbow end."
** "Man-hands-stick (wrist)-after."
†† "It straddles," fourth category of nouns.
‡‡ "It-over-it (long obj.) lies," a verbal noun.

are deposited in the water on the sandy shore of the lake or stream till they reach an advanced stage of decay. The stench they then exhale is simply asphyxiating. But not so with the natives, it would seem, since they do not recoil from collecting them and, after having slightly exposed them to the action of the sun as a means of evaporating the water they have absorbed, they submit them to a thorough boiling in large bark vessels and gather their oil in bags made of salmon skin. This they greatly relish, and have recourse to whenever they wish to enhance the natural succulency of their service berries and other fruit. To a civilized palate it is simply an abomination.

noble sauvage

LAND ANIMAL TRAPS.

While the fauna of Northern British Columbia could be more varied, it is nevertheless abundant enough to relieve the more pressing needs of the Indian tribes stationed within its borders. With one single exception all the larger mammals on whose meat the prehistoric Dénés subsisted are still to be found there. By this exception I refer to the elk (*Cervus canadensis*, Erxl.) which the Carriers assert to have been indigenous to their present territory, but which has long disappeared from among them. Philologically speaking its successor is the horse, which both Carriers and TsiɂKoh'tin call a domestic elk (*yézih*, elk, *ɂi* dog or domestic animal), while the Tsé'kéhne see in the noble animal nothing but a "big dog" *ɂi-tco.* From an economic standpoint however, it is now replaced by the moose (*Alce americanus*, Jardine) and the cariboo (*Rangifer caribou*, Linn.)* The deer (*Cariacus virginianus leucurus*) which is unknown to the Tsé'kéhne and rare among the Carriers is exceedingly plentiful among the TsiɂKoh'tin. But Providence has given the former two valuable mammals which are practically wanting among the latter, I mean the mountain sheep (*Ovis montana*, Cuv.) and the mountain goat (*Capra americana*, Rich.) whose native names are *tɔpe* and *ɔspai* respectively. Other animals which are sought more for their meat than their fur are the hoary marmot (*Arctomys caligatus*), the ground-hog (*A. monax*, Linn.) and last but not least the hare (*Lepus americanus*). The porcupine (*Erethizon dorsatus epixanthus*) was formerly hunted for the sake of its quills which were greatly prized as an article of ornamentation.†

Most of the other mammals hunted by our Dénés are valued chiefly for their fur, though the meat of almost all is appreciated as an addition

* The moose is called *tɔni*, and the caribou, *kwɔtsih*, by the Carriers.

† The marmot is called *tɔtin*; the groump hog, *'kani*; the hare, *kɔR* and the porcupine, *tɔt'quk*.

to their provision store. Prominent among them is of course the beaver (*Castor fiber*, Linn.), which is called *tsa* by all the Western Déné tribes. Its small congener, the muskrat (*Fiber zibethicus*, Linn.), is the beaver of the children and the poor, to whom it is known as the *tsé'kʌ't*. However a much more precious game even than the beaver is the black bear (*Ursus americanus*, Pallas), called *s̄as* by both the Tsé'kéhne and the Tsi¦Koh'tin and *s̄as* by the Carriers. Our Western Dénés, who usually prove so cowardly against a human enemy, are so courageous when matched with almost any wild beast, that among them he would not be considered a man who would be afraid of a bear. Personal encounters wherein bruin comes out second best are by no means a rare occurrence here, and not a few Carriers still bear the marks of the bear's teeth and claws. Even the grizzly (*U. horribilis*) is no terror to them. I have here at my side an Indian who has killed one with a revolver, while I am well acquainted with another, a most reliable man, who by his fearlessness and *sangfroid* put to flight a bear of that species with which he had been sitting face to face for perhaps a quarter of an hour without receiving as much as a scratch from the monster, and without having used the shotgun which he had not had time to load. The main point in such awkward circumstances is not to betray the least fear and to look one's adversary right in the eyes. Show any degree of hesitation and you are lost. Although no two species of the grizzly bear are known to science, it might be, however, that the *shyas*, the bear of which I am speaking, is but a variety of *Ursus horribilis*, inasmuch as the Indians pretend to know another and much more formidable one which they call *tsa-rana* or "he busies himself with the beaver," by allusion to its favorite occupation, beaver hunting. This animal they fear, and so far they profess never to have killed any adult of the species, but to have occasionally seen a few. It is, they say, much larger than the *shyas* or common grizzly; its heel is proportionately narrower and the fore end of its paw much broader. It is worthless as an economic item, as it emits a most offensive smell.

The other fur bearing animals sought after by the Western Dénés are the marten (*Mustela martes*, Rich.), the fisher (*Mustela canadensis*, Linn.), which the Carriers call a "big marten," *tcunih-tco*, the otter (*Lutra canadensis*, Turton), the wolverine (*Gulo luscus*, Linn.), the lynx (*Felis canadensis*, Rich.), the fox (*Vulpes vulgaris*), the wolf (*Canis lupus occidentalis*), the coyote (*Canis latrans*), and the two small carnivores, the ermine (*Putorius vulgaris*, Linn.), and the mink (*P. vison*, Brisson). In addition to *washi*, its regular name, the lynx, whose ancestors are believed to have had intercourse with women, is often half jocosely called *sûnté*, "my first cousin" by the Carriers. As to the different

varieties of foxes and wolves, they are recognized and differentiated by adjectives, not distinct names, in the native tongues, as they are founded merely on colour, not, as with the dog, on anatomical peculiarities. It is a well known fact among our aborigines that, for instance, red, cross and black foxes are found in one and the same litter, so that it seems naturalists should not see more difference between a red and a black fox than they do between a gray and a white bull-dog.*

When not chased or killed by chance as happens in the course of one's travellings, the above named fur bearing animals are procured either with

Fig. 80.

traps or snares. At least three varieties of the former contrivances, all of genuine Déné origin, are still in general use, and a fourth, the bear

* It should be mentioned here that aboriginal usage prevents the hunter from killing for himself any of the largest animals, especially such as are chased for their meat. After his game has been brought down, he will invariably give it to one of his companions, or if he happens to have none, he will cache it up against wolverines or any carnivorous animals and return to the village. Then he will say to any one whom he chooses to favour with his spoils: "In such and such a spot in the forest I have shot a cariboo for you. Go and fetch it." To act otherwise would be equivalent to courting the scorn of every hunter of any standing in one's place.

trap, though now a thing of the past, is still remembered by old men. Its main or fall part consisted of trunks of small trees united into a sort of lattice work by means of muskeg pine saplings interlaced through them. To ensure additional efficiency for the structure, large stones were laid over it, heaps of which are still to be seen in several places, generally close by the banks of salmon streams. I can find no native in a position to satisfactorily explain the mechanism of this trap. All I can gather is that it was very effective, not only against black bears, but even against grizzlies.

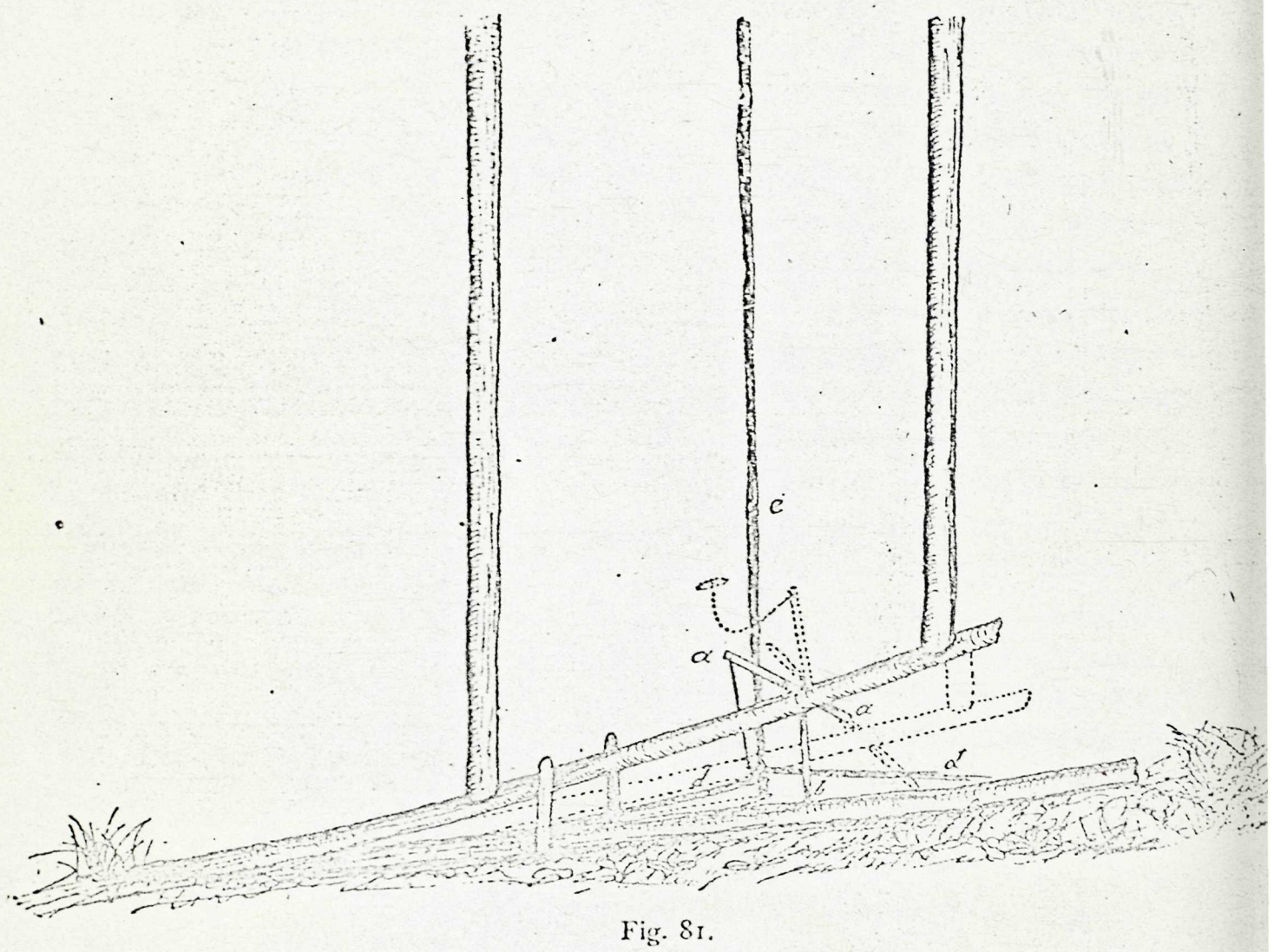

Fig. 81.

To secure martens and other small land game, the Carriers never use but the trap shown in fig. 80, which is very simple in construction. It is merely composed of a fall stick *a*, one end of which is thrust in the ground in an oblique direction, and which springs down on the transversal or ground stick *b*, through the falling off of the pole *c*, resting upright on the bait stick *d*. To prevent the game from getting at the bait otherwise than through the trap, a rectangular enclosure is erected with small pickets generally against, or close to, the bole of a spruce or pine tree. Should the fall stick not exactly correspond in position with that lying on the ground, the marten might survive the springing of the trap and

eventually effect its escape. To guard against such an accident, two stakes *e* are driven in the ground on each side of the falling apparatus. The use and working of the weight pole *f* need no explanation.

Much more complicated, as may be seen from fig. 81, is the action of the lynx trap. The device causing the capture, if not the death, of the game, is identical with that of the preceding, save that two weight poles instead of one are used. But the principle of the apparatus itself is altogether different, and might be pointed out as an evidence of no mean ingenuity. Although I have faithfully outlined in dots the working of the trap while in the act of springing, some further explanation of it may be necessary.

The general principle governing its action is the balance principle. The fall stick being pressed down by the weight sticks, thereby forces up the furthest end of the lever *a*, which is balanced on the post *b*, acting as fulcrum. As an immediate consequence, the string button *c* (fig 82) is started up and at once arrested in its flight by the horizontal sticks *d* engaged between the button and the perpendicular pole *e*. The reason of the springing of the trap is now easy to understand. The lynx, or fox, upon trying to get at the bait laid on the ground a little distance off within a picket enclosure, is bound to tread on the trip stick *e* which is thereby disengaged from the pressure of the button, which immediately whirls up yielding to the action of the weight poles on the lever, as shown in the dotted outlines. Both the post and the perpendicular pole *e* are stuck in the ground, and the latter, as well as the weight sticks, are set up through the branches of the tree under which the trap is prepared.

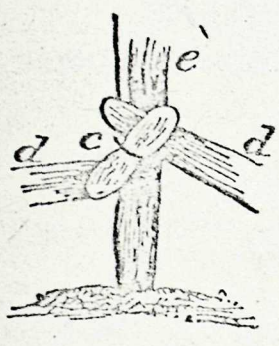

Fig. 82.

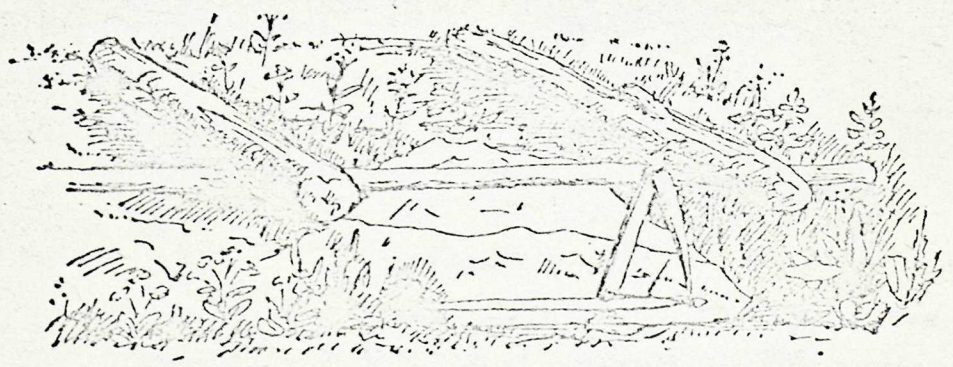

Fig. 83.

A somewhat different setting of the same trap is obtained by engaging the trip stick *above*, instead of *below*, the middle of the button piece. In this case no bait is provided for the game, but the trip stick is thoroughly rubbed over with castoreum, by licking which the animal springs off the lever, whereby the fall stick slips down on the base.

A modification of this trap is occasionally used by a few to capture the beaver. But as the Crees are credited with its invention, no further mention of it is necessary.

Fig. 83 represents a kind of trap differing in every particular from the three already described. It is proper to the Tsé'kéhne and does service against marmots. As shown in the cut, it is usually set in front of the animal's den, and its action or working apparatus has some resemblance to the common figure four trap. Its trip stick *a* is laid across the entrance of the marmot's den and is disposed so as to form a right angle with the left side of the spring stick *b*. Of course this is concealed from view with dry grass, leaves, moss or any other available vegetable material. In order to give even a clearer idea of the mechanism of the trap, its com-

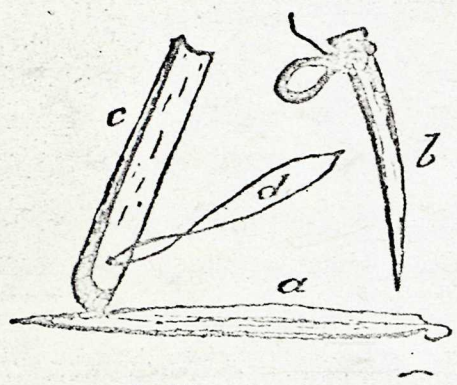

Fig. 84.

Fig. 85.

ponent parts will be found separately drawn in fig. 84. Let it suffice ot add that, while the fall stick is looped to the springing piece *b*, the small end of the latter is at the same time notched in the trip stick *a* and connected with the post *c* through the double string *d*, which presses in the extremity of both trip and spring pieces.

These traps are not hastily constructed on the spur of the moment with any chance material taken at random from the immediate vicinity of the spot where they are set. They require some little care in their preparation, and they are therefore made at home, and carried about with their different parts tied together as shown in fig. 85.

SNARES.

Whilst we are occupied with the divers contrivances invented by native ingenuity to capture land animals, it may be well to give some idea of the Western Dénés' methods of snaring the same. To such as may be tempted to call in question the appositeness of such minute details, I would beg to point out that the aborigines, whose technology we are studying, are pre-eminently huntsmen no less than fishermen; and to call complete a review of their industrial implements, which does not

embrace their various fishing and hunting contrivances, would be equivatent to supposing well constituted a body lacking nerve or bone. Besides giving us some idea of their proficiency as craftsmen, they enable us to witness, as it were, the workings of their mind as applied to their means of providing for the necessaries of life. So that those very details which may appear unimportant to the superficial reader, add in the estimation of the scientist, a psychological interest to a study which is primarily technological. What has already been said of the Western Dénés' fish or animal traps has led us to the conclusion that, if those aborigines are wanting in the appreciation of the beautiful, they are by no means devoid of the faculty of judging and selecting that which is best suited to the attainment of their ends. A review of their snaring devices cannot fail to confirm this impression.

At least eight different methods of snare setting, generally varying according to the nature of the game, obtain among the single Carrier tribe. I leave it to the following figures to explain the details, and shall content myself with noting *en passant* that which they cannot tell.

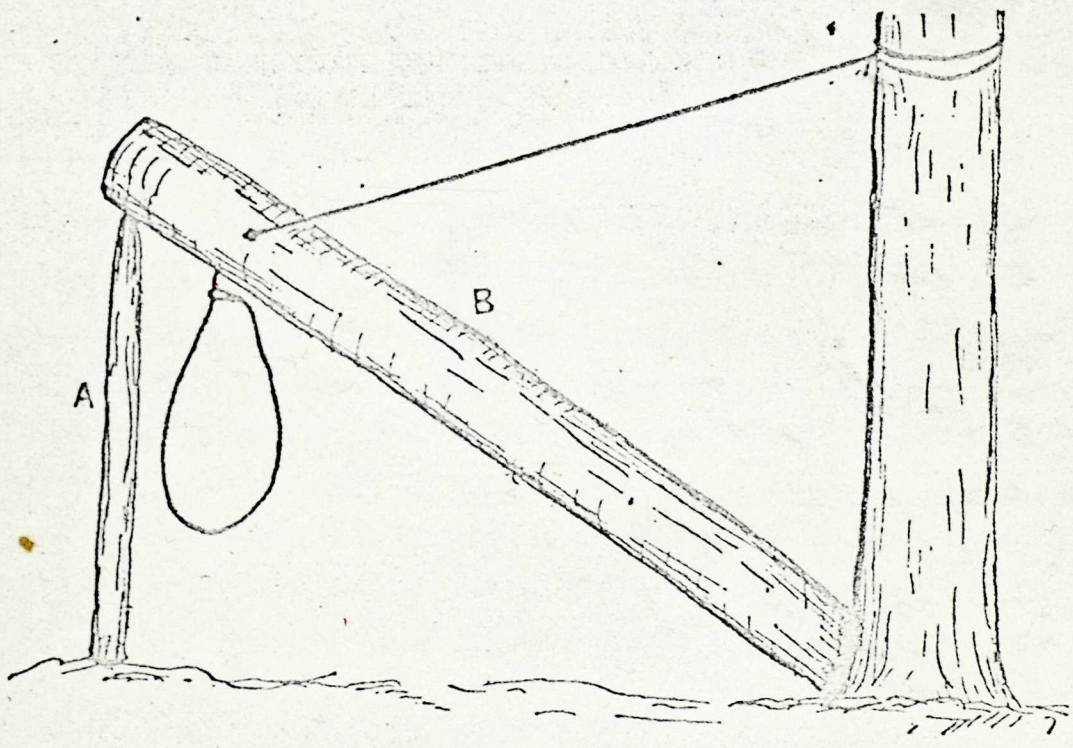

Fig. 86.

Figs. 86 and 87 represent bear-snares * whereby the game is either choked down on the ground (fig. 86) or flung up in the air (fig. 87). The action of the former is exceedingly simple, though it cannot fail to prove very effective. Of course it is clear that the bear upon getting engaged in the noose, which is in all cases held in the proper position through

* The root for snare in general is *ɟiɟ*, and this word is suffixed to the name of the game for which each snare is intended. Euphony demands that it be preceded by an *n* ; therefore bear-snare is *ɔɔs-nɟiɟ* ; lynx-snare, *washi-nɟiɟ*, etc., in Carrier.

small strings lashed to the bushes near by, will, to free himself therefrom, pull forward or backward. Either movement must result in the fall of the post *a* and thereby of the beam *b*.

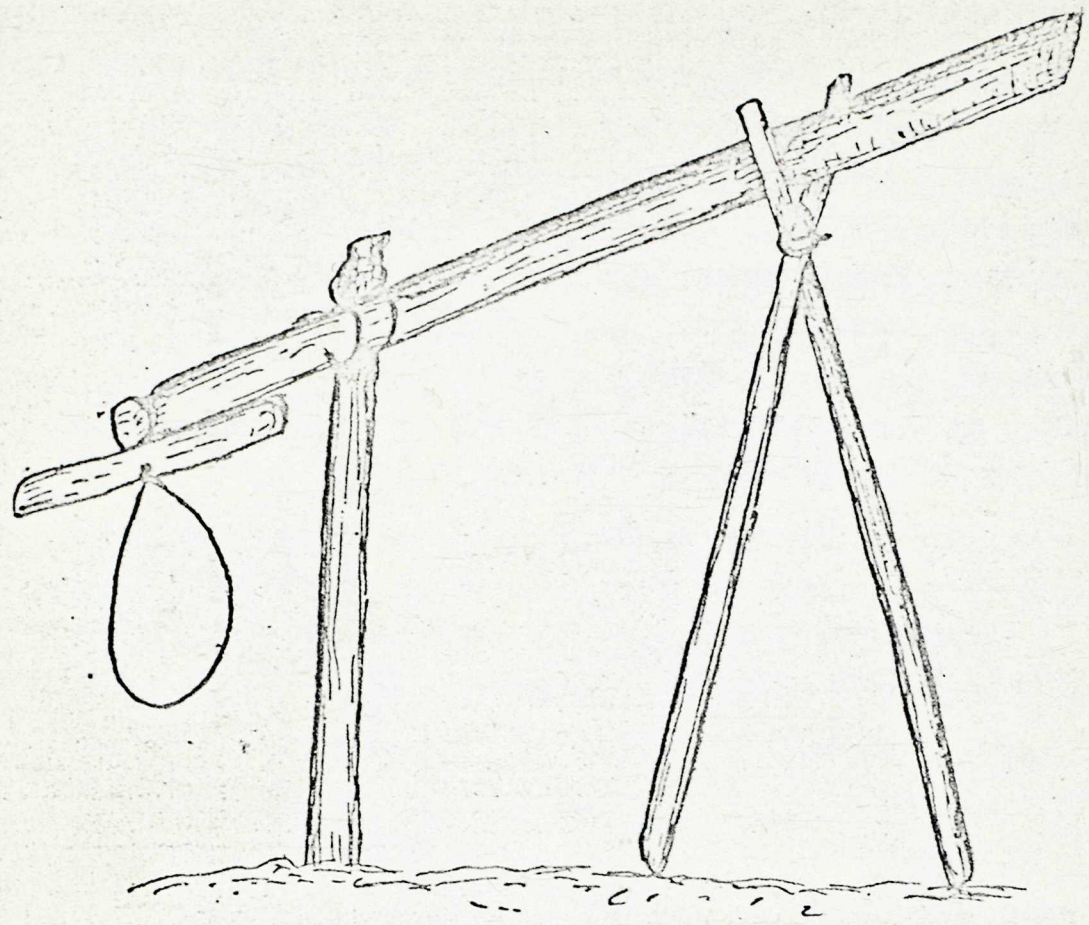

Fig. 87.

As to the second mode of setting the bear-snare, it may be necessary to explain that as soon as the game is noosed up by the falling of the crossed poles, he will naturally, in his efforts to disentangle himself, struggle for a support for his paws so as to annul the action of the noose. This is provided for him in the shape of the wooden piece noticeable under the small end of the lever. But as the role of the hunter is not one of mercy, he has taken care, prior to setting his snare, to bore through that piece of wood a hole large enough to ensure its slipping down with the contraction of the noose. So that by pressing down on it, the animal only hastens its own death. The manner of lashing the lever or balancing pole to the post is shown in Fig. 88. It is reputed the safest and is adopted with regard to all other snares requiring a similar appliance.

The setting of the cariboo snare cannot be simpler. As shown herewith, it merely consists in a noose attached to a stout stake (fig. 89) with which the game scampers away, and becoming engaged among fallen or standing trees chokes himself to death.

Until a few years ago, the Tsé'kéhne were wont to use these snares extensively and with no mean results. As many as forty or fifty were

set in a line through such defiles or passes of their mountains as were the most frequented by the roaming bands of cariboo. After two of their most active hunters had been deputed to watch at either end of the line, the others, numbering fifteen or more, would, by loud shouting and firing of guns, drive the reluctant game to the snares where it was captured.

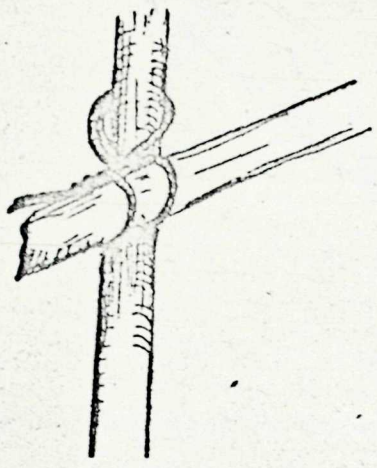

Fig. 88

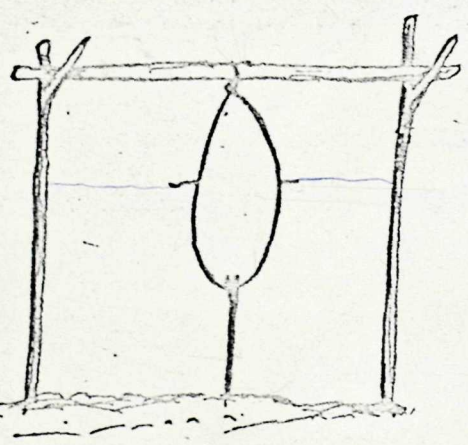

Fig. 90.

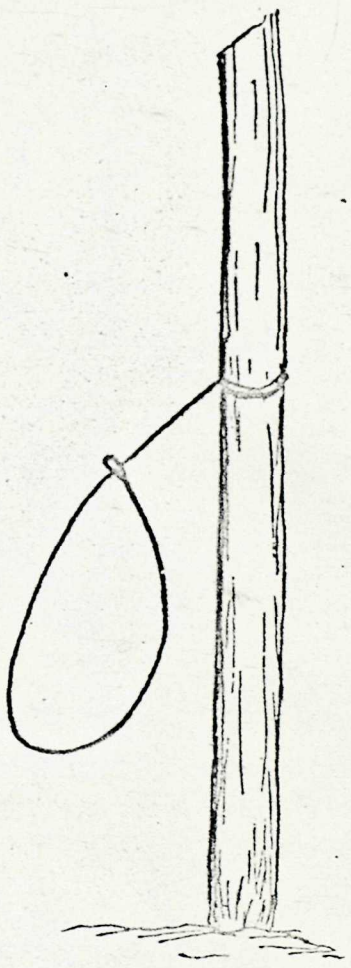

Fig. 89.

In figs. 90 and 91 we have snares very differently set, though they are intended for the same kind of game, viz.: the lynx. The working of the apparatus is in the first model identical with that of the cariboo snare. The little stick planted in the ground is destined to no other purpose than that of holding the noose in position with the help of the two side strings.

Fig. 91 though more complicated in appearance is no less easy of understanding. It is composed of two levers balanced on their posts, the end of the main or snare pole being engaged under that of the other, which is prevented from yielding to the weight of its larger end by the temporary stick *a* set thereunder. The struggling of the lynx when caught in the noose will cause this to drop off on the ground,

whereby the small end of both levers will spring up, leaving no possible chance of escape to the game.

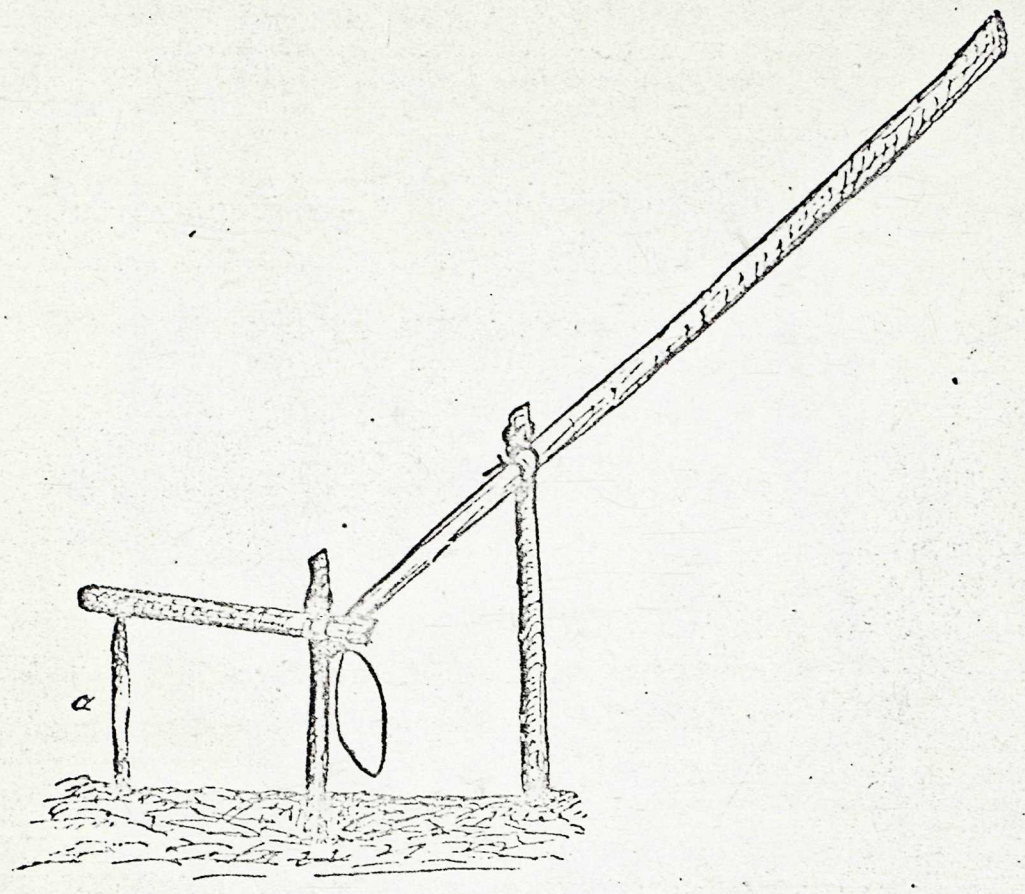

Fig. 91.

The fox snare (fig. 92) is likewise based on the balance principle, and needs no further explanation than this: The snare string above the noose

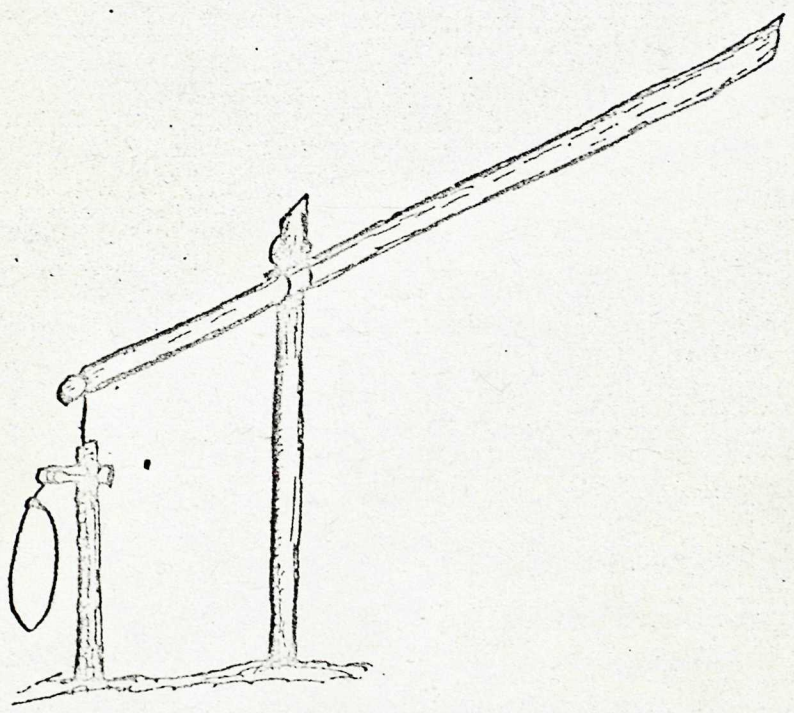

Fig. 92.

is wound round a stake solidly driven in the ground and a detachable transversal piece of wood in such a way that it unrols itself by the

slightest movement on the part of the noosed animal. This connection between the transversal and the horizontal sticks I have tried to illustrate

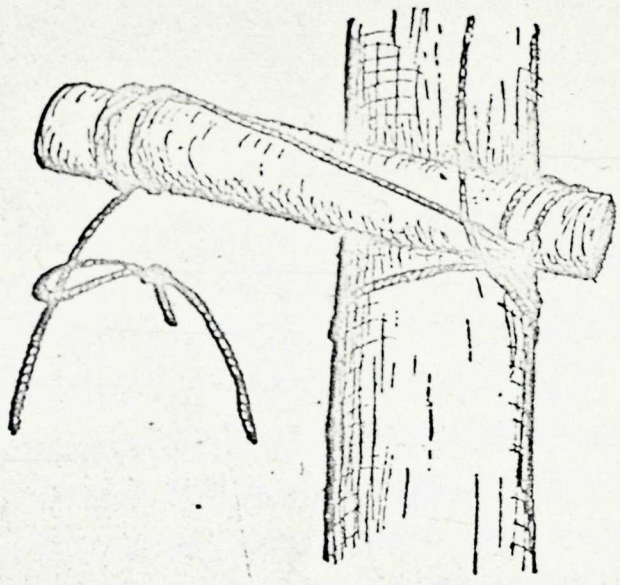

Fig. 93.

by fig. 93; but I think that its working requires to be seen to be fully understood. This snare does also good service against marmots.

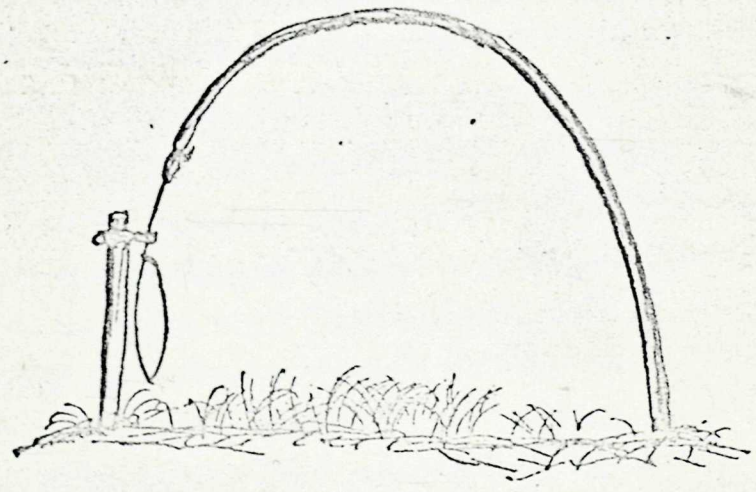

Fig. 94.

Fig. 94 represents a mode of snare setting usual in connection with the latter game only. It needs no explanation, since the lever of fig. 92 is simply replaced here by a bent down switch.

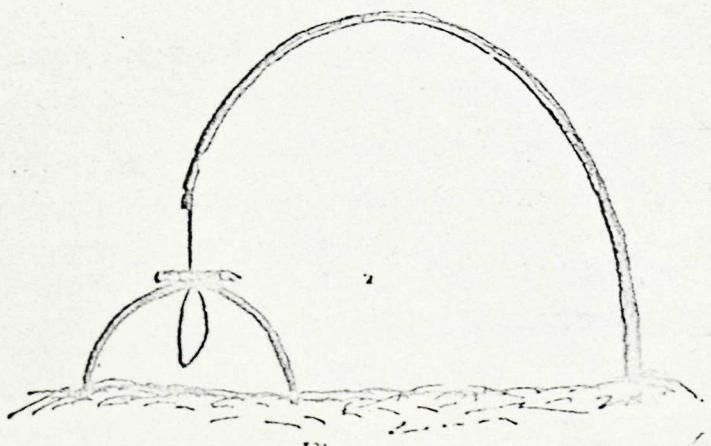

Fig. 95.

Lastly fig. 95 gives us an idea of the rabbit snare as it is commonly

set by our Carriers. The method is identical with the preceding, save that a switch forming a semi-circle is substituted for the stake to which the movable cross-piece is temporarily fastened. Of course this necessitates a change in the position of the latter which in this case is laid horizontally over the apex of the hoop.

The strings of the cariboo and bear snares are made of moose or cariboo skin strands, generally four in number. As a protection against moisture or any other deteriorating agent, they are in most cases wrapped with thin strips of willow bark. Hempen twine such as is for sale at any H. B. Co. fort nowadays serves against any species of minor game.

Before leaving this subject, it may not be amiss to mention that even waterfowl were formerly sought after by means of snaring devices. Ducks and grebes were then the coveted game. The snares consisted in a noose cord of vegetable fibre attached to a stick firmly driven in the bottom of the piece of water, more generally in such shallow places as the fowl ordinarily frequent when feeding.

Waterfowl of any larger species such as geese and swans, especially the latter, are said to have been secured in olden times, by an ingenious stratagem which cannot be better described than by relating the following fragment of the Carriers' national legend wherein the famous hero ʒstas plays such a wonderful role.

"In the course of his travellings, ʒstas came upon a family consisting of the father, two sons and a daughter. One day, the old man sent his sons to try their chances at catching swans in his hereditary fishing-place. The young men, who had already heard of ʒstas' wonderful deeds, said to him: 'Cousin, we always lose our time in our attempts at catching swans. Our father wants some to make for himself a head-dress and a breast blanket* for the winter. People say that you generally succeed in any enterprise you undertake. Come then, and help us.' ʒstas readily consented, and went out with them.

"When they had reached the family fishing grounds, they perceived eight swans lazily gliding on the water. 'Have not you taken a rope along with you?' asked ʒstas. Upon which they pointed to a long rope which had been left there for future use in a similar emergency.

"Presently ʒstas donned a head-dress made of the head and neck of a swan, and, taking the rope with him, swam slowly towards the swans imitating in every point their movements. Then he deftly tied the feet

* See the chapter on Dress and Personal adornment.

of five of them to his long rope without as much as awakening their suspicions, and swam back to the stake driven in the bed of the river to which he secured the end of his rope. Being now sure of his game, he took off his head-dress when the swans perceiving their mistake took to their wings, but were soon arrested in their flight by the retaining rope and stake. They were then taken by the wily stranger.

"The young men who had on previous occasions tried the same trick without avail, were delighted at the success of their guest, so much the more that nobody before him had been able to get by this method more than four swans at one time. They therefore invited him on another day to give them a further proof of his ability, and even to outdo himself if that was possible. Much flattered at their encomiums, ʒstas this time tied the legs of no less than eight swans. But as he was swimming back to attach the rope to the stake, he unwittingly lifted off his head-dress, upon which all the fowl flew off taking up with them ʒstas who was thus carried very far away into the countries beyond the horizon."

The story then proceeds to relate how, new Vulcan, having let go the rope, he fell down upon a rock wherein he sank and was buried alive.

Whether this or any analogous mode of securing waterfowl was really practised by the prehistoric Carriers cannot, of course, be now positively stated. Strange as it appears, some such stratagem may have been resorted to, since we read that in China waterfowl are caught by wading in the water up to the neck with one's head hidden in a gourd and then seizing the bird's legs to finally draw it down in the water without ever revealing one's personality.* Be that as it may, the modern Carriers know it only by tradition. They now prefer to build small circular huts of coniferous boughs or even walls or cairns of stone in the favorite haunts of the fowl behind which they hide and by imitating their call, prevail upon them to approach within shooting range when they are easily dispatched.

I have enumerated the fishes and land animals trapped or otherwise hunted by our Western Dénés, and described the various devices made use of to secure them. I leave it to the following list of the names of the lunar months in two dialects to furnish the reader with some hints as to the time when they are generally sought after.

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*See *Six Legendes Américaines identifiées à l'histoire de Moise, etc., par le R. P. Petitot, Missions de la Congrégation O.M.I.*, Paris, 1877, p. 741.

NAMES OF THE TWELVE LUNAR MONTHS.

IN CARRIER.

Sa-tco, the big moon.
*Tcɔz-səl.**
*Tcɔz-tco.**
Cin-uza, moon of the spring.
Təkus-uza, moon of the carp.
Tañr-uza, moon of the summer.
Késəl-uza, moon of the land-locked salmon.
Thallo-za, moon of the red salmon.
Pît-uza, moon of the bull-trout.
Ɉoh-uza, moon of the white-fish.
Panrən nət'səKei, "during its half one navigates."†
Sa-tco-dîn'ai, "next to the big moon."

IN TSÉ'KÉHNE.

Int'sih-sa, moon of the wind.
Yastɔse-sa, moon of the snow-storms.
Ahta-înza, moon of the golden eagle.
Ratqé-înza, moon of the wild goose.
S̄as-inza, moon of the black bear
Mənəh-tcé-thə'oɉe, moon when they‡ take to the water.
Hə'ke-ta, "the buffalo ruts."
Ɐ̈tsiz-înza, moulting moon.
Sa-tsətle, little moon.
Sa-tcî, great moon.
Ɐ̈'ka'î, "the fat (of the animals) disappears."
Mə-thən-thən-tsətle, "what freezes is covered with bare ice."

The first of these months corresponds nearly to January.

The size of the page prevents me from giving side by side with the above the names of the TsiɊKoh'tin months. Their main peculiarities may be thus resumed: March is the "moon when one comes out of the subterranean huts"; April is the moon of the sucker; July, that of the *Kes*, or white-fleshed salmon; August, that of the red-fleshed salmon; November is called "this month we all enter the subterranean huts," and December is the moon of the ice. It will thus be seen that different social habits and occupations have left their impress even on the names of the months such as recognized by the three Déné tribes under study.

OBSERVANCES OF THE HUNTER AND THE TRAPPER.

Prior to their embracing Christianity, the Western Dénés had recourse to various other means of ensuring success while engaged in hunting. Several superstitious practices were observed, the neglect of which was

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* The root *Tcɔz* is now meaningless. The finals *sal* and *tco* mean "small" and "big" respectively.

† I. e. Lake Stuart is opened to navigation during the half of this month.

‡ I. e. The goslings.

regarded as entailing unavoidable failure. Most of these were based on their regard for continence and their excessive repugnance for, and dread of, menstruating women.

As soon as a Carrier had made up his mind to try his chances at bear-snaring, he separated *à thoro* for a full month previous to the setting of his snares. During all that time, he could not drink from the same vessel as his wife, but had to use a special birch bark drinking cup. The second half of the penitential month was employed in preparing his snares. The omission of these observances was believed to cause the escape of the game after it had been snared. To further allure it into the snares he was making, the hunter used to eat the root of a species of heracleum (*tsél'ép* in Carrier) of which the black bear is said to be especially fond. Sometimes he would chew and squirt it up with water exclaiming at the same time : *Nyûstluh !* may I snare you !

Once a bear, or indeed any animal, had been secured, it was never allowed to pass a night in its entirety, but must have some limb, hind or fore paws, cut off, as a means of pacifying its fellows irritated by its killing.

Speaking of the meat of snared animals, I cannot help remarking that young women having their menses could not eat of their head, heart or hind part without exposing themselves to a premature death through a kind of rabies which was sure to attack them in after years. This infirmity led them to keep tearing off the flesh of their arms with their teeth. If perchance they were favored with a lucid moment, they improved it by making their confession to the shaman. "When young, I ate of the head, etc., of an animal" they would say. Thereupon the medicine man would suck from the body of the patient what was represented as the tabooed morsel unlawfully swallowed, and forsooth the woman was cured !

The heart even of water-fowls was forbidden to similarly circumstanced young women, who had also to abstain from cutting up the grebes which, among the Carriers, are caught each spring in such large numbers. These fowl are full of blood, and their being manipulated by such persons would communicate to the latter either hæmorrhage or unnaturally prolonged menses.

If in the woods with his wife, the hunter would also prefer to see her tear herself up in the bush and thorns, to let her pass in the narrow trail wherein he may have deposited his snares preparatory to setting them. Should she as much as step over without touching them, her mate would certainly consider any further attempt at capturing game as futile and useless.

The skulls of the bears whose flesh has been eaten up are even to-day invariably stuck up a stick or the broken branch of a tree. But the aborigines fail to give any reason for this practice.

If the Carrier was to use traps instead of snares, the observances preparatory to setting them varied somewhat. When martens were the intended game, the period of abstinence from sexual intercourse was shortened to ten days or thereabouts, during which the trapper slept by the fireside pressing down a little stick over his neck. This, of course, could not fail to cause the fall-stick of his traps to drop on the neck of the coveted game! The chewing and squirting up of the heracleum root were observed in this as in the former case. The deprecatory formula was merely changed into *Nyûskuh!* may I entrap you!

When successful, the trapper had to be very careful that no dog touches his prey, which, to avert such a misfortune, he had to hang up a peg in the lodge as soon as this was practicable. Contact with a dog would certainly indispose the game's fellow martens against the traps of the hunter responsible for such a slight.

No superstitious practice appears to have been followed as a preparation to beaver hunting, save that to ensure a larger catch, one-half of each trap was daubed with red ochre. But nobody who does not care to condemn himself to useless efforts at securing any further supply of the game must be unguarded enough to swallow the little patella bone of the beaver. In like manner, if after having captured a beaver, a Carrier has the carelessness to let one of his dogs get at that bone, he may as well resign himself to return home empty handed. During the whole beaver-trapping season, his first capture will infallibly be his last.

Lynx not only was not eaten by the women, but even when once snared, it could not be brought in the lodge through the doorway. Women as well as men daily enter through that passage, and the former must have no intercourse, however indirect, with the feline. So it was introduced by men into the lodge through the smoke hole in the roof. It was touched by men only, its flesh boiled by men and eaten by men. The reason of the aversion of the women for the lynx will appear from the following legend:—

"A young couple of Indians was living in the woods. One morning, as the husband was absent chasing large animals, a stranger of surprising beauty and apparently endowed with superhuman powers came upon the young woman. "Follow me: you shall be my wife," he said to her. But as she was very much attached to her husband, she strove hard not to hearken to him. Yet such were the stranger's charms and hidden powers

that her mind was as if paralyzed in his presence. As she pretended that she had no provisions for the journey, he told her that the distance was short, and that he had plenty in his own place. Whereupon he seized her and she had to follow him. Now the stranger was no other than the lynx. She managed however to snatch from her lodge in leaving a grouse (*Dendragapus franklinii*, Dougl.) which her husband had shot a while before. As she walked behind her seducer, she would pluck a few of the grouse's feathers and down and drop them along thereby marking her trail on the ground. By the time that she reached her new home, the bird was entirely stripped of its feathers and down.

"The lynx's lodge was full of pieces of the fat of cariboo and moose hanging up to dry. Before dark, he went out to do a little hunting a short distance off.

"Meanwhile the young woman's lawful husband who had experienced no difficulty in tracking her, thanks to the fallen feathers and the trampled herbage—for it was summer time—came upon her as she was sitting lonely in the lynx's lodge. She at once told him the story of her abduction by the stranger. At the same time she insisted that the latter was uncommonly powerful, and cautioned her husband against using violence in this case. "We had better try and take him by stratagem, for both of us together are nothing to him," she said.

"She had barely uttered these words, when the lynx came home after a successful hunt. The woman went out to him and said presenting the new comer: "Husband, here is your brother-in-law, for he is indeed my own younger brother." Upon which the lynx asked: "Have I then a brother-in-law?"—"Yes indeed, and a very good one," answered the woman. Then her own lawful husband told the lynx how very pleased he was to see his sister married to so good a hunter and thereby delivered from her first husband who had been living with her against the wishes of all her relations. To confirm the sincerity of his declarations, he presented the lynx with his own quiver full of arrows, keeping only his bow for himself. "I will hereafter see you more than once," he added "and each time I shall make you similar presents."

"The lynx was so pleased that he insisted upon preparing himself his guest's supper.

"Now prior to his return home, the young woman had related to her real husband how the lynx had asked her whether she was having her menses. Lest she may have been tempted to prove unfaithful, she had answered affirmatively, though that was not the case. Hearing this, the lynx had manifested a great dread of her and left her untouched. They

had then, her husband and herself, agreed as to the plan to follow to effect her deliverance.

"Therefore, after they had eaten to their content, she purposely attempted to play with the lynx, while her husband, who was lying on the opposite side of the fireplace, feigned sleep. But each time that she tried to touch the lynx she was sharply rebuked: '*Skrauthahoñkrés*,* you will throw a spell over my arms,' he would say. Yet she would not desist in her endeavors to keep him awake so as to render his sleep more profound once he would fall asleep.

"At length after he had been a while soundly sleeping, she motioned her husband with a stick that now was the time to act. Therefore he cautiously seized his bow which was double pointed, as one end of it was provided with a long horn dart while the other had a stone spear head. With all his might, he sank the horn dart into the lynx's breast, while his wife chopped off his head with a stone adze she had kept concealed in her bosom.

"After he had transpierced him with the horn dart, he and his wife turned him over and he repeated the same operation on his back with the stone spear head of his bow. They did not leave him till he had been reduced to a shapeless mass of bone and flesh.

"Ever since, our women have been afraid of the lynx, for he is indeed a ravisher."

In the estimation of the Carriers of the generations gone by, fishing was not fraught with the same perils as hunting, and therefore few, if any, superstitious precautions accompanied it. Indeed the only vain observance which can be mentioned in this connection was that which forbade women having their monthly flow to cut or carve salmon, inasmuch as this was reputed to seriously endanger the health and especially enfeeble for life the arms of the transgressor.

When no shaman was at hand to consult about the quantity of the salmon coming up, either the elements or some peculiarities in the vegetable kingdom afforded them a means of prognosticating the nature of the forthcoming run of fish. Thus a continually rumbling thunder or the early fall of the service-berries portended to them an abundant harvest. I would not affirm that these ideas have no longer any hold on the mind of a few modern Carriers. Those persons who are *au fait* with the popular notions current among the lower classes of the Old World will, I think, hesitate before tasking my Indians with uncommon credulity.

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* *Thahoñkrés* is hard to translate in English. The lynx means that her touch while in her unclean state will incapacitate him for the chase.

CHAPTER VI.

WOODEN IMPLEMENTS.

I may mention as having some relation to one of the objects of the preceding Chapter, namely fishing, the *kwot'soz** and the *talleɁ*.† The former

Fig. 96.

is the wooden maul which serves to drive home the piles of the salmon weirs used by the Carriers. It is bottle-shaped, and of the hardest wood obtainable, generally birch (*Bitula papyracea*).

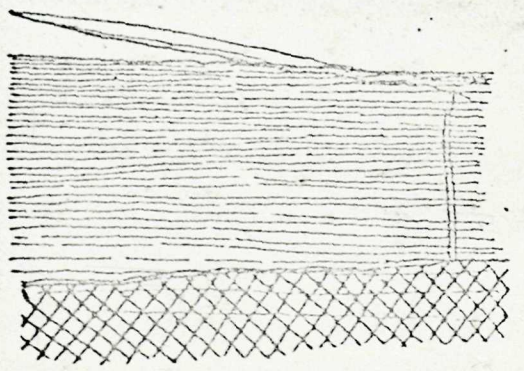

Fig. 97.

The latter is the wooden float attached to their nets. Here we cannot fail to remark that the Western Dénés had in this connection an opportunity of exhibiting at least a minimum of artistic taste, and, as in most cases, did not improve it. The cut (fig. 97) shows the working of the float when in actual use.

Such entirely wooden implements as are unconnected with either fishing or hunting are relatively few and unimportant. Therefore we need not tarry long in their description. Commencing with those which serve recreative purposes, we may refer in the first place to the *tatquh* (fig. 98) of which mention has already been made in the course of a

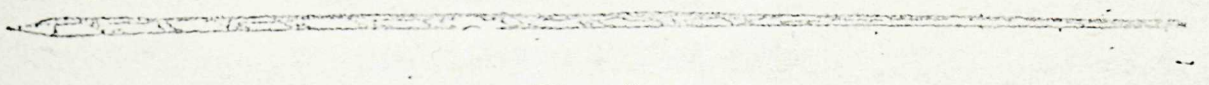

Fig. 98.

* Second category of nouns.

† A verbal noun almost equivalent to "it floats up."

native legend. It is a rod five or six feet long which is thrown through the air so as to fall as far as possible from the initial point of launching, the distance reached determining the measure of success attained. This game was formerly much in vogue among the Carriers. It is now obsolescent.

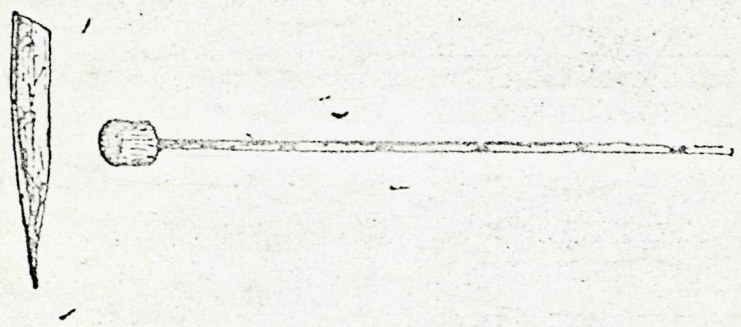

Fig. 99.

A great rival is *nəzəz*, which is played with sticks of almost the same shape, (fig. 99) though much stouter near their fore-end. As they do duty on the frozen surface of the snow, the finest polish possible is aimed at in their preparation. These sticks vary in length from three to six or seven feet, according to the strength, possessed or assumed, of the player. The Carriers are to-day passionately fond of this game, which is played, as a rule, by adverse bands, the stake going over to the party which first attains the fixed number of points.

Fig. 100.

Tə'kɔ· is another pastime which is somewhat childish in character. In most cases it is played by the fireside in the camp lodge during the long winter evenings. Its necessary accompaniments are a blunt-headed stick (fig. 100) and two small, thin and springy boards firmly driven in the ground, one close by each player. The two opposite parties sit facing each other and throw the tə'kɔ· against the little board on the other side, upon hitting which it rebounds to the knees of the successful player, who is then entitled to recommence and continue as long as luck favors him. Failing to get at the mark, the tə'kɔ· is handed to the other partner. The number of points obtained indicates the winner. The old men profess to be ignorant of that game, which is probably adventitious among our Indians.

While we are treating of the games in connection wherewith success depends on the skill of the performer, not on mere hazard as with nɔt'sə·a, atlih and atiyéh, we may mention *'ɬɛɪ-la-pɔs* ("encircling willow") or arrow target shooting, though the implement required for its performance

and from which the name of the game is derived would, considered in itself, be classed among the objects which shall form the subject matter of our next chapter.

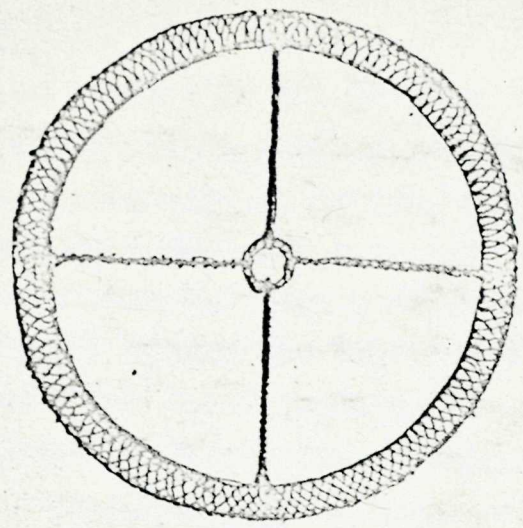

Fig. 101.

This is a sort of open work disk or wheel made principally of willow bark strings, though the frame of the hoop is composed of three or four switches very closely fitting each other and kept in position by a strong lacing of strips of bark. Radiating from the axis, or heart as it is called, are four cords of similar material stretched so as to form a cross (fig. 101).

As this was formerly the great national game of the Carriers, I may be pardoned for giving its rules somewhat in full.

A team of five or six men was matched against another of presumed equal force, and after each player had been provided with a given number of pointless arrows, the disk was set wheeling away by one team to the cry of *tlép! tlép!* This was the signal for the other to shoot at it while it was in motion. Should they fail to hit it, it was returned rolling to the first team so as to give them an equal chance of making at it with their arrows. As soon as the disk had been shot, the real competitive game commenced. The arrows which had hit it, two, three or more, became the stake for the rival team to win over. For this purpose the disk was hung up a short stick planted in the ground near the team who had succeeded in sending home the arrows, and it was aimed at successively by each member of the opposite party. Should any one be lucky enough to shoot it with his first arrow, the stake played for became his irrevocable property. When the target was hit, but on a subsequent attempt of the marksman, the stake was thereby won over, subject to its being redeemed by any member of the opposing team performing the same feat. In this case the game became a draw; the wheel was set rolling anew, and the nature of the stake was determined as in the first instance.

I have never seen 'keilapos played by others than children and young men. But in times past it had a sort of national importance, inasmuch as teams from distant villages were wont to assemble in certain localities more favorable to its performance in good style. Indeed, until a few years ago the sporting field of some was literally dotted with small cavities resulting from the fall of the arrows.

Fig. 102 represents the device doing duty among the TsiqKoh'tin as a spindle. Prior to the introduction of European textile fabrics, its uses were doubtless of a much wider description than to-day. As a matter of fact, I have never seen it in actual use except to spin or twist the rabbit skin lines entering into the manufacture of blankets. The discoidal attachment is wanting in the implement such as known among the Carriers.

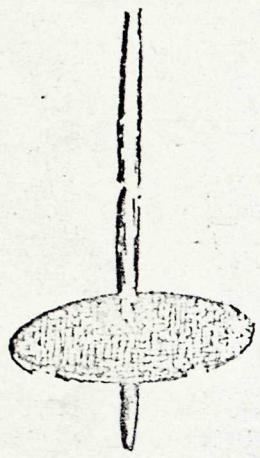

Fig. 102.

There can be imagined no simpler or more primitive method of lighting fire than that originally obtaining among the Western Dénés. Instead of the somewhat elaborate fire-drill in use amongst the northernmost congenerous tribes, such as the Loucheux and the Hares, our aborigines' apparatus was reduced to a short stick, generally of resinous scrub pine *(P. contorta)* set revolving on touchwood by immediate contact with the hands as is practised by the Wataweita of eastern equatorial Africa.*

Shall I speak of the Western Dénés' canoes? They certainly possess no peculiarity to render them worthy of any mention, unless it be their very rudeness of form and finish. Of course I do not here refer to the birch bark canoes, which among the Carriers and the TsiqKoh'tin, have gone out of use since the last fifty years or so. Of these I have seen but very few examples, and they were not representatives of their class.

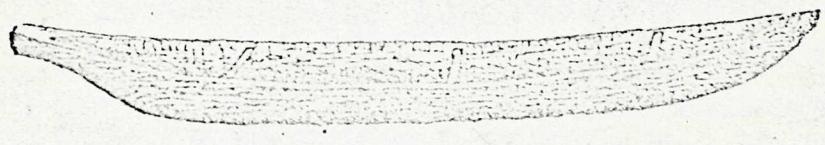

Fig. 103.

West of the Rocky Mountains, the present Déné canoe is dug out of balsam poplar trees (*Populus balsamifera*), and either because the material will not admit of a similar treatment, or because our Indians have not yet learned the method of expanding the sides by the action of fire underneath, as is done by the Coast Tribes with regard to their cedar canoes, they are left almost as narrow at the centre as the tree was while in its

* See "Fire making apparatus in the U.S. Museum," by Walter Hough, p. 553.

original state. A few cross sticks only prevent the sides from shrinking in too much. This want of width, added to the fact that the prow is always made of the broader end of the tree, renders these canoes very awkward in stormy weather on our lakes, inasmuch as they generally compensate in length what they lack in breadth.

Another fact worthy of remark is that the Carriers, who owe to their frequent intercourse with the Coast Indians, much of their technology and all such of their customs as are unknown to the rest of the Déné nation,* should have failed to take the hint from their maritime commercial visitors and build wooden canoes, until they appropriated, some seventy years ago, two rough "dug-outs" manned by a party of Iroquois hailing from the East.

Their paddles offer hardly any noticeable peculiarities, save perhaps the absence of the cross-like appendage at the end of the handle which is common among maritime tribes. This is explained by the different manner of handling the implement. While the Coast Indian when paddling seems to divide his strength between propelling forward with the left hand and pulling backward with the right, the edge of the wooden canoe being made to serve as a partial fulcrum for the lever in his hands, the Carrier, who unconsciously labours under the illusion that he is still manning a frail birch bark canoe, does all his paddling away from his dug-out without ever touching its sides. This exercise necessitates the peculiarly long shaft of his paddle and renders useless the cross-end of the maritime implement. The aforesaid illusion is so patent that even while at the helm, he scarcely ever uses his paddle as a rudder to steer his craft. He prefers to paddle out alternately to the right and to the left, thereby communicating to the canoe a kind of zig-zag course.

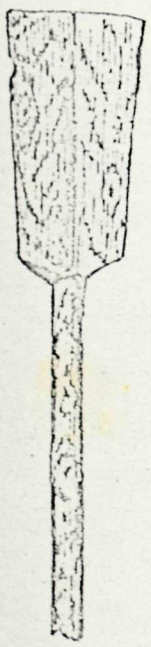

Fig. 104.

To return to the description of technological items. In fig. 104 we have an industrial implement whose destination cannot be guessed, inasmuch as its form is rather misleading. It is *not* an oar, but a *'ah-tcōs̄*. This compound word, when understood, prevents the possibility of any misconception as to the use of the object thereby determined. *'Ah* is the Carrier word for a species of fern whose bulbous root our aborigines greatly relish, and *tcōs̄* means "paddle," and by extension any paddle-shaped object. Hence this implement is designed to dig out the esculent root of the fern *'ah*. Yet, in spite of its name, it

* See my paper in the Transactions of the Royal Society of Canada, Sect. II. 1892, p. 109-126.

does frequent service as a mere *pe-yɔ̄-hahwozo** or snow shovel, as it is also used to clear of snow the doorway of habitations and space adjacent thereto. It should be remarked, however, that the prehistoric ʻahtcɔs, was much ruder in form and finish than that herewith illustrated.

The bulb of this fern is eaten while fresh and baked *à l'etouffée* in this wise: "The natives dig out a hole about three feet in diameter in the ground, pave its bottom with heated stones over which they strew chips of alder (*Alnus rubra*) bark, and then fill it up with the roots. The whole is then covered with earth and the roots will be ready for the table ten or twelve hours later, that is when entirely cooled down."†

As far as I can ascertain, no such esculent root as ʻah grows in the TsiɊKoh'tin's country. But its absence is more than compensated by the presence there of two very useful tubers, *ɔsroñh* and *sûntî*, which resemble respectively diminutive oblong and spheroidal potatoes. When these

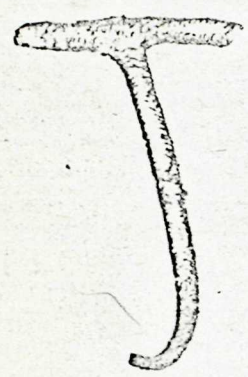

Fig. 105.

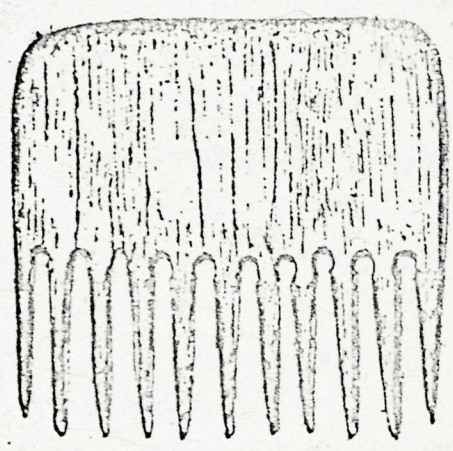

Fig. 106. ½ size.

have reached maturity, they are dug out with the T-shaped tool shown in fig. 105. As may be seen, there is nothing complicated in the nature of this implement, since it is nothing else than a birch branch cut off with its shoot. To ensure greater toughness to the material, its point is generally treated to a slight calcination. Immense numbers of the root are annually gathered. They are either boiled as potatoes or smoked in the house. For the latter purpose a sinew or buckskin line is passed through each of them, and while thus forming strings of vegetable beads, they are hung up near the chimney or the fire hole. The smoking process is rather long, and at its close, the tubers are eaten without any further preparation. I have also seen this method practised among the TsiɊKoh'tin with regard to the smallest of their potatoes.

From the culinary peculiarities of the TsiɊKoh'tin we may pass to their faculty of imitation and adaptiveness as evidenced by the herewith

* Lit. "wherewith-snow-is shaved off."

† The Western Dénés, p. 135.

figured toilet article which had been made and was used by one of them immediately before it was handed to me. If this comb stamps them as good imitators, it must be confessed that it entitles them to no particular claim to be ranked as artists. An examination of the cut will reveal the extreme simplicity of the process of fabrication of this article. A set of small holes have first been drilled with the hole-borer (fig. 130), after which the portions of the wood whose veins had thus been cut asunder have been extracted with the knife leaving out what becomes the tines or prongs of the comb.*

The original comb of the Western Dénés was remarkable for the length of its prongs rendered necessary by their peculiar way of wearing the hair prior to their first encounter with European civilization. In all probability, it was made in about the same style as the above Carrier comb (fig. 107) which is not a toilet article, but served the purpose of ritual observances. To secure success in his trapping or snaring operations, the Carrier had, besides lying down by the fireside, dreaming, etc., to make use of this three-pronged comb, which consists in the juxtaposition of as many wooden pins bound together with sinew lines.

Fig. 107. ½ size.

That our Western Dénés are indeed a self appropriating race is further evidenced by the *ton'i* or wooden cuirass which the Carrier warriors used to don as a protection against the enemy's arrows. This was composed, as a rule, of dried rods of *Amelanchier alnifolia* (or *Canadensis*) disposed in parallel order and held together by means of cariboo skin lines interlaced through the middle and near both edges. It was identical with the wooden armour formerly in use among the coast tribes from which it was undoubtedly borrowed. I have never seen any; but fig. 53, plate xv. in Niblack's "The Coast Indians of Southern Alaska"† will give some idea of its general appearance.

Composed of the same material was the *'kei-lla-thon*‡ or shield, which was oval in form as the Roman *clypeus*. The mode of manufacture only differed somewhat, as the branches or twigs of amelanchier were very closely interwoven. No specimen is now available for illustration.

Another wooden implement which, though I have seen in actual use, I cannot figure herewith for the lack of a specimen to draw from, is

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* The Carrier name of the comb is *tsi-lleu*, "the head is curried," a verbal noun.

† Ann. Rep. U. S. National Museum, 1888.

‡ Lit. "willow (or birch)-the hand-hold"; 3rd categ. of nouns.

the *tɑn-ɔst'ɲu* (sticks-interwoven) of the Babines. Its name indicates its mode of fabrication, but leaves us in the dark as to its shape or destination. Imagine a rough arm chair without legs and made of stout, split sticks of willow *(Salix longifolia)* or other wood secured by skin strings, and you have a perfect idea of its form. As for its use, it may be properly pointed out by a simple reference to the plate xx illustrating Ancient Mexican Carriers, in Cyrus Thomas' paper on the Manuscrit Troano.* The packing devices seem to be identical in both cases, while the modes of handling the implement appear to have been different. Our Western Déné women—useless to remark that among primitive peoples heavy work always falls to the lot of the woman—pack from the forehead with a skin line broadening in the middle, and, if the load is unusually weighty, the ends of this line are made to pass around the chest so as to render the burden more manageable. Among the Hwotso'tin, a fraçtion of the Babine sub-tribe, I have seen a woman thus packing, apparently with the greatest ease, her invalid husband, a man of more than average size and weight.

I shall purposely avoid speaking of the board boxes likewise used as carrying mediums by some of our Carriers, because they are imported from the coast, not indigenous to the Western Dénés.

These other objects which, as sociological items, are also due to the influence of the maritime tribes, but had become naturalized among, and were made by, the Carriers, were the *nîɲrivɔs*, the *hanɔ'taih*,† and the *t'sak*. The first two are respectively the ceremonial rattle and mask, none of which can now be illustrated from existing specimens. These were almost the only objects of art of genuine Déné manufacture to which I can point, and yet I do not think I unduly depreciate my Indians' artistic capabilities by adding that they were rather below than above the average of similar aboriginal carvings. The masks were used only by mimics accompanying by grotesque gestures and jerking of the head the dance of a privileged few. But the rattles served a double purpose: they did service in connection with a notable's dance, being then held in the hand by the dancing personage himself, and also as an accompaniment to the incantations of the *niɲqɔn*,‡ or shaman. Both implements are, even at the present day, so common among North Pacific Coast tribes that no description of either is needed by readers ever so little *au fait* with American aboriginal paraphernalia It may

* Contributions to North American Ethnology, vol. v., p. 20.

†Lit. "that (round obj.) which is taken off;" the verb *ha-nes'aih* in the potential mood.

‡Lit. "he makes people sing." Not to forget that among most aboriginal races, song and magic are convertible terms.

suffice to refer less informed readers to the plates or figures illustrating Niblack's "The Coast Indians of Southern Alaska";* G. M. Dawson's "Notes on the Haida;†" W. H. Dall's "Masks and Labrets,‡" etc.

Fig. 108 illustrates an implement which, for the lack of another term we must call a rattle, though in shape, use and native name § it widely differs from the above mentioned ceremonial rattle. It is campanulate in form and is composed of a rounded piece of wood, hollowed out in its larger or bottom end and split asunder as far up as that part of it which serves as a handle. It was used by the participants in that aboriginal ceremony, the *thĕt-sɔlrwɔs*,‖ which I have described in a former paper.** By slapping against one another, its two halves produced a very sharp rattling sound which could be heard at a great distance.

Fig. 108. ⅙ size.

This is perhaps the proper place to mention another piece of Déné carving, the gentile totem, toad, grouse, beaver, etc., which on great festival occasions was exhibited as a means of attracting offerings, apparently to the said totem image, which were in reality presents, voluntary or due, to the givers of the feast. Of course no specimens of these carvings now exist among the natives.

The *t'sak*, the third borrowed sociological item mentioned above, was a canoe or trough-shaped vessel, sometimes elaborately carved to the arms of its possessor, I mean the totem animal of the notable to whom it belonged, and wherein food was served to the invited guests. This large vessel was brought into requisition on the occasion of extraordinary festivals only. Identical specimens are shown in plate xxxviii. of Niblack's book.

Another kind of wooden utensil called *t'sai* or dish, which was oftentimes inlaid with haliotis shells as an attempt at ornamentation, is also known to have been possessed by a few Carrier families. But I greatly suspect that the vessel, no less than its ornaments, had been bartered from among the coast Indians during the fairs which were periodically held on the borders of the Kitiksons' territory.

This brings us to the consideration of the Western Dénés' household utensils.

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* Rep. U.S. Museum, 1888.

† Report on the Queen Charlotte Islands. Ann. Rep. Geol. Surv. Canada, 1878-79.

‡ Third Ann. Rep. Bureau Ethnol; Washington, 1884.

§ *yadə'ta'*, "from which there comes a slapping sound."

‖ "One runs out."

** The Western Dénés, etc., Pro. Can. Inst. Vol. VII, 1888 89, p. 154.

CHAPTER VII.

BARK IMPLEMENTS.

In no branch of aboriginal industry is the Western Dénés' and especially the Carriers' inferiority as workmen more apparent than with regard to their household utensils. Most certainly no more primitive ware could be imagined, both as regards material and workmanship. It has already been pointed out that no pottery or clay objects of any description ever existed among them. With reference to the Carriers and the Tsé'kéhne, the list of unknown technological items must be extended so as to comprise even the twined basket-work vessels so common among the majority of American indigenous races. These are replaced among the aforesaid tribes by corresponding vessels made of either birch *(Bitula papyracea)* or spruce *(Abies nigra)* bark. Only the coarser variety of vessels, thoes the object of which is but temporary, are made of the latter material, the remainder, those which are properly household utensils, being invariably of birch-bark.

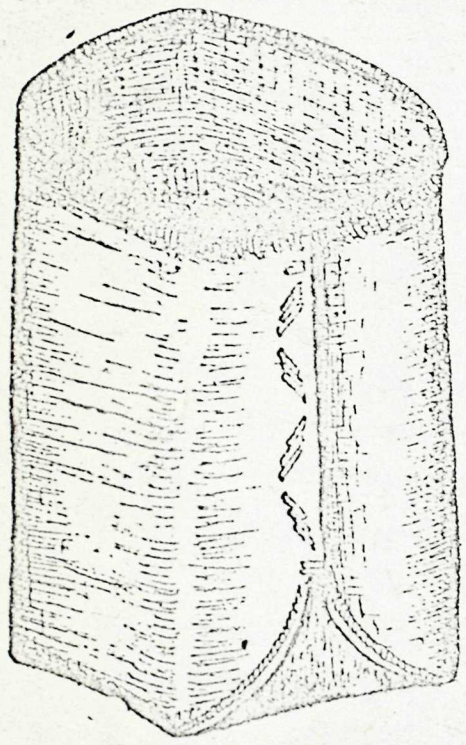

Fig. 109.

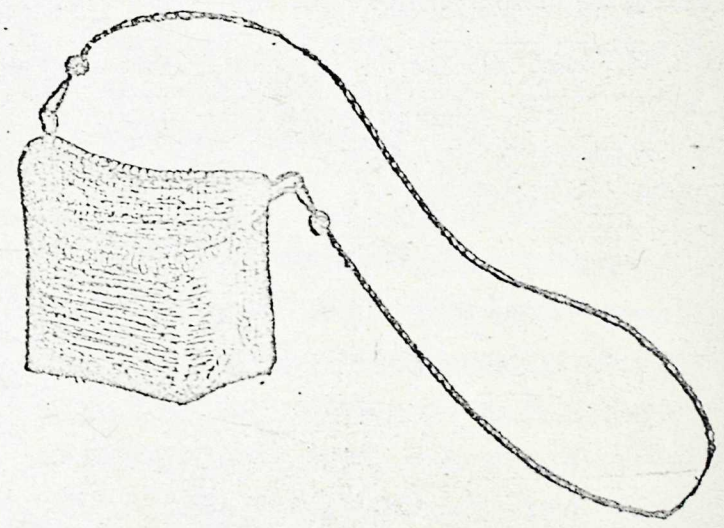

Fig. 110.

The most popular vessels among the Carriers are the two herewith illustrated. Both are of a single piece of birch bark, and this must indeed be understood of all birch or spruce bark utensils. The shape and cut of the material previous to sewing are represented in figs. 111 and 112. In the former figure, besides these, the seams and stitches will be

found faithfully delineated. The curved bold lines in the cut indicate the places of cutting preparatory to folding up the bark, and the dotted outlines stand for what becomes the outside edge corresponding to, and

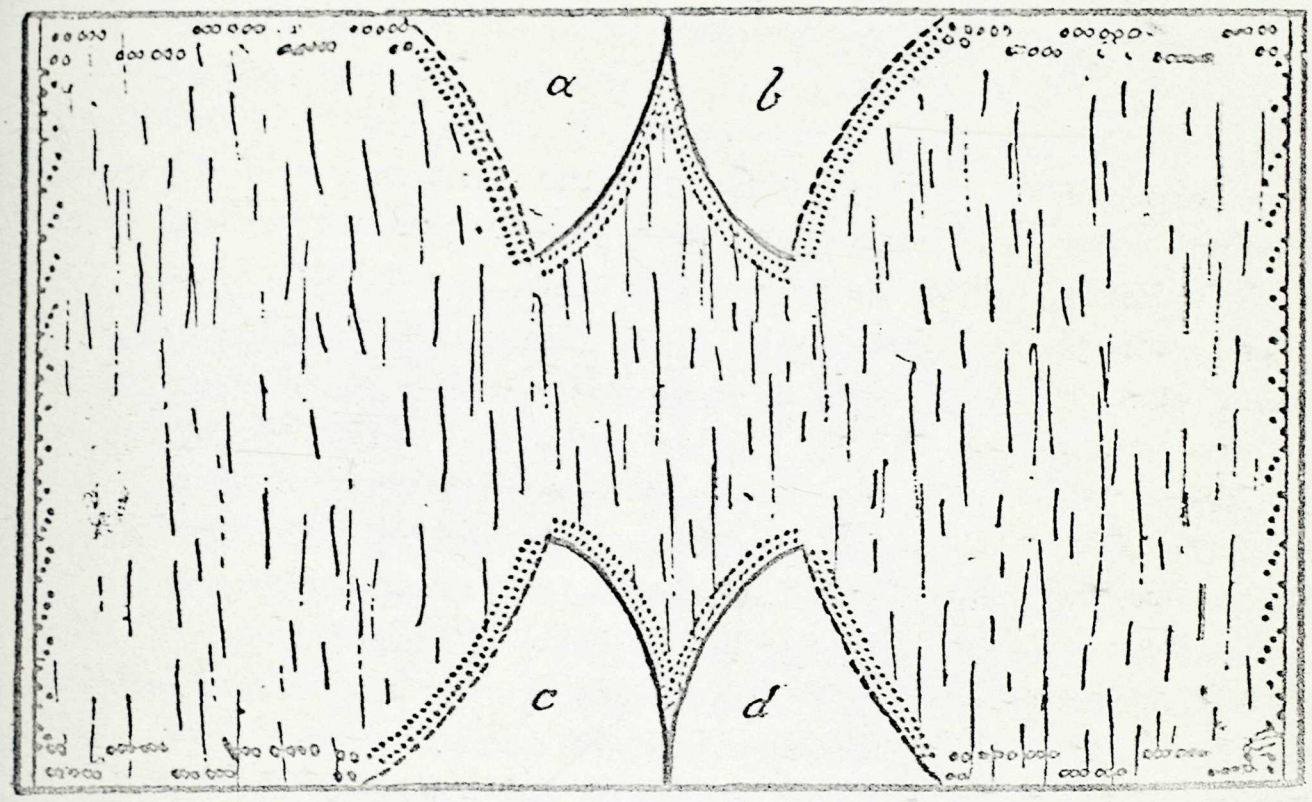

Fig. 111.

sewed with, the tapering piece of bark noticeable in the lower part of the finished vessel. Such portions of the material as are comprised between the bold and the dotted lines—*a*, *b*, *c*, *d*—are cut off once the adjacent

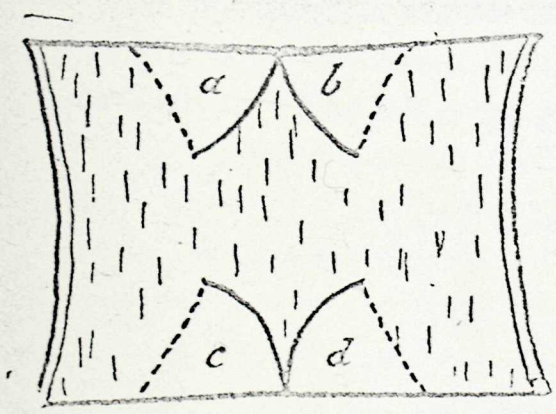

Fig. 112.

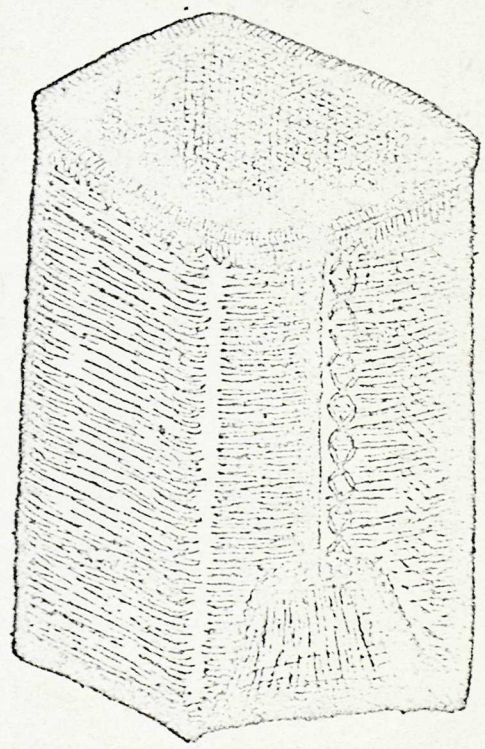

Fig. 113.

parts have been sewed. To give the necessary consistency to the rim, a rod is made to encircle it on the inside. Furthermore, to still add to the

solidity of the vessel and ensure greater neatness of appearance, wattup, or split spruce root, is made to pass through the bark and wrapped very tightly around the rod and rim. In order to avoid striking successively the same grain of the bark with the awl, the holes are pierced each receding backward till four or five have been stitched in, after which the first of a new series is made closer to the brim. To break the monotony of the wattup wrapping, small pieces of *tcan-na-t'qɣ** or bird cherry (*Prunus pensylvanica*, Linn.) bark are inserted, generally in the middle of each of the four sides of the vessel, enough of their shining surface being left uncovered to be easily visible.

The largest of the bark vessels above illustrated is called a *tcaɣyaɣ*. It has, as a rule, a capacity of from three or four to ten gallons. As regards the uses to which it is put, they are manifold. While the women are gathering berries, it serves to bring home the fruit which has been immediately collected in the smaller or *theɣ* vessel (fig. 110). In the lodge the *tcaɣyaɣ* is also the recipient of clothes, the sewing implements of the women, the family heirlooms, the trinkets of the children, etc. Moreover, it serves frequently to cache up close by the houses any household chattels which it is thought expedient to protect against mice. When thus employed it is suspended, carefully covered with birch bark, from the lower limb of a branchy evergreen.

Some tcaɣyaɣ, while remaining identical in form, materially differ in their style of cutting and sewing. Of these fig. 113 affords a fair example.

None of the bark vessels of the Carriers is provided with a lid.

The second vessel, the *theɣ*, "receptacle," (figs. 110, 112) somewhat resembles the first in form and hardly differs in make, save of course, the altered cutting of the bark. But while all the tcaɣyaɣ are very deep and as nearly quadrilateral in shape as the material will allow, the orifice of the theɣ is oval and the vessel is proportionately more shallow. Moreover, all such specimens as exhibit a pretension to elegance have the middle of their length rims somewhat elliptical. Inserted between the bark and the encircling rod on both narrow sides are two buckskin thongs forming loops to which is attached the neat yarn string—generally adorned with multicoloured yarn tufts—which serves to suspend the vessel from the neck. The theɣ is carried on the breast, while the tcaɣyaɣ is packed, sometimes two at a time, on the back and the occiput. Sometimes, as is the case with the more stylish patterns, the cherry bark ornaments are replaced by dyed horse hair arranged so as to produce geometrical designs.

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* "Stick which one tears around," by allusion to the mode of treating its bark.

The thej is above all a berry basket, but it does also frequent service as a drinking cup. Its size is subject to great variations, as it may contain from one pint to two gallons. Both tcajyaj and thej are to be seen in every Carrier household, and the latter especially is used so extensively that there is hardly any girl, however so poor, who does not possess her berry basket.

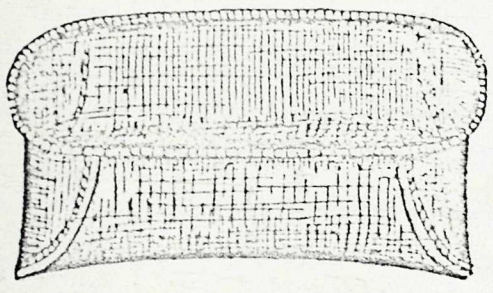

Fig. 114.

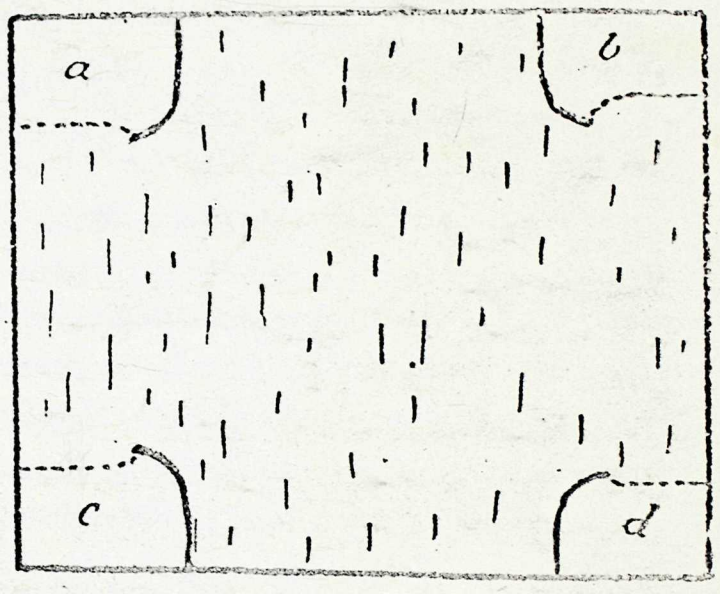

Fig. 115.

The vessel delineated in fig. 114 differs from the preceding in every particular except material and the setting of its rim. It is shallow, and almost rectangular in form, and the seams, instead of tapering from the corners to the centre of the ends as in the above described, remain confined to the corners. Fig. 115 will make it clear that its manufacture offers no serious difficulty. Here again the dotted outlines point to those portions of the bark which are cut off after the vessel has been sewed. As its main destination is to hold liquid, though but for a short time, whether this be water, grease, or berry juice, it is made perfectly water tight. Its native name is *t'sai*, a Déné root, which means tray, dish, or plate. The t'sai greatly vary in size, though they average a capacity of five gallons.

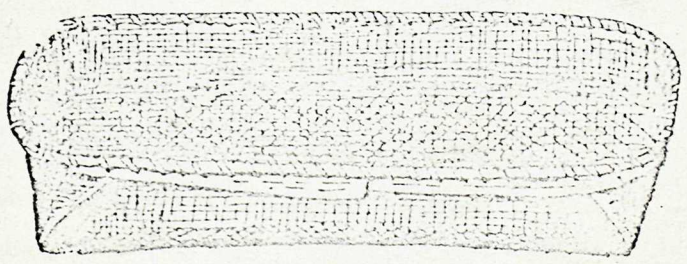

Fig. 116.

Very much resembling this vessel is the *t'ɲs-t'sai* or fish tray (fig. 116), which however differs not a little as regards both make and finish. It is without a single seam, the corners of the bark being merely folded up,

and the switch which encircles its rim is laid on the outside, instead of the inside, surface of the bark edges. This also lacks the thorough wattup wrapping of the rim, for which is substituted a spiral lacing of a coarser kind of spruce root. To prevent the thin birch bark from yielding too much to the pressure of the rim switch, a double lining consisting of two narrow strips of bark is applied against the vessel's edge both on the inside and on the outside.

It should be added that a few fish trays are also made with seams exactly as the common dish or tray (fig. 114).

The length of this vessel is generally double its width, which, in extreme cases, may reach as much as one foot and a half. It does service principally in connection with the daily net-fishing. The net, which has been left to dry during the day, is at dusk prepared for use at home, the floats and sinkers being there attached in their proper places. The whole is then carefully folded and deposited in this tray, after which the fisherman—or rather fisherwoman, since net fishing invariably devolves on the woman—proceeds to the spot in the lake chosen to set it. When it is withdrawn in the morning, two such vessels may generally be seen in the canoe, one destined to hold the fish, the other reserved for the net, which is folded therein as soon as drawn out of the water.

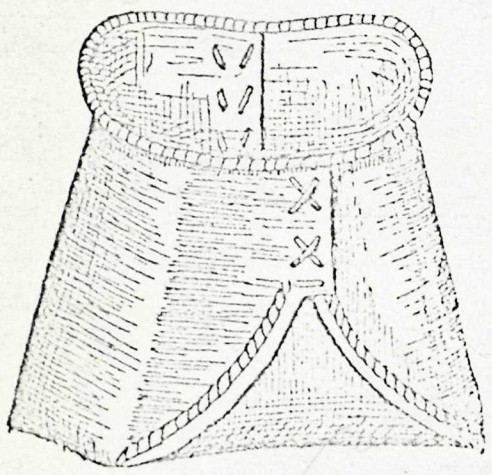

Fig. 117.

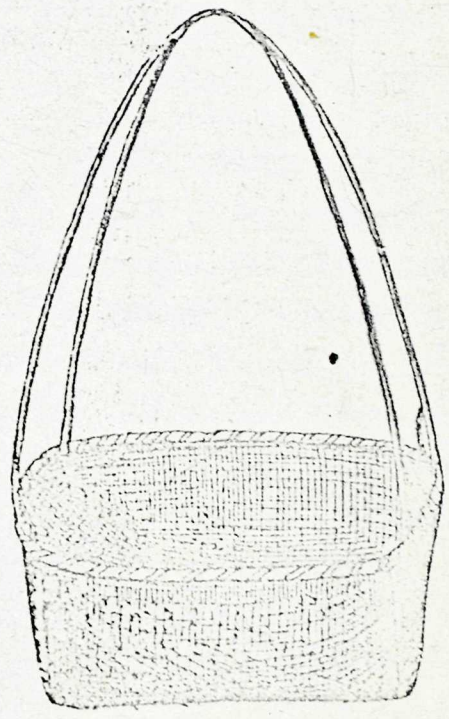

Fig. 118

No vessels of European or American manufacture have so far replaced any of the above described utensils. This is not the case with figs. 117 and 118, for which tin or copper vessels have long been substituted. The former, however, was still to be seen in actual use some ten or fifteen years ago. It was intended to keep water in; hence its Carrier name

thû-thel, "water-receptacle." This circumstance accounts also for its peculiar form—I mean the contraction of its upper part in faint imitation of the neck of a jar. Of course this vessel was made water-tight, the wattup used as thread being, after sewing, carefully pressed in with the finger previously coated with the balsam of the spruce (*Abies balsamea*).

The latter is the original Carrier kettle or boiler,* which is now altogether antiquated. It is seamless; the bark of which it is made has simply been folded up at its four corners and is so retained by means of a few stitches and of an encircling rod on the outside of the rim. Therein were boiled the roots, fish or meat of the family repast, and the aborigines are still loud in their praise of its excellence as a rapid boiler. Naturally enough, the frailty of its material required that care be taken lest it come in immediate contact with the flames. These primitive kettles were not only serviceable, but even much more durable than might be expected. In fact, their only part which was at all liable to get burnt was the wooden rim hoop, which had to be renewed from time to time.

On grand occasions, such as the famous "potlaches" or ceremonial banquets† so much in vogue among almost all the British Columbian tribes, large square boxes imported from the sea coast, were called into requisition. When filled with water and meat or fish, heated stones were repeatedly cast in until their contents were boiled.

The contrivance illustrated by fig. 119 consists of two parts, both of which are of spruce bark. Its object cannot well be understood without some details on one of the Carriers' most important industries, berry collecting and preserving.

Conspicuous among the various species of wild fruit which yearly ripens in profusion throughout their territory is the service berry (*Amelanchier alnifolia*). So important is it in their estimation that they generally call it merely *the* fruit, *mai*. At the end of every summer, the women gather immense quantities of it, first in their thel and then in their tcalyal wherein it is brought home. When not eaten fresh, seasoned, as a rule, with bear grease or salmon oil, the berries are kept for future use under the form of large, thin cakes resembling plugs of tobacco. They are then prepared by a process which, if primitive, is not the less complicated

As soon as the desired quantity of the fruit has been secured, the Carriers build on the ground, in a sandy spot, if possible, the below

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* *Nusai*, sec. root. The name of the modern kettle is *usa'*.

† *Horwonta*, "the going near" a verbal noun, which confirms what I have written elsewhere, namely that such feasts, no less than several other practices, are of recent origin among the Western Dénés.

delineated boiler and tray. They commence by digging a shallow excavation in the sand into which they lay one end of a rough bark tray, thereby obtaining an oblique inclination for the whole vessel, the lower end of which is alone folded up. Inside the upper half of the tray, a boiler of corresponding width and made of a large piece of spruce bark is erected and secured in position by three sticks driven in the ground on the outside of both boiler and tray. This boiler has no other bottom than that of the tray wherein it stands upright and wherewith it forms an obtuse angle. As a consequence of this last circumstance an aperture is left between the bottom of the tray and the lower edge of the front side of the boiler, that facing the projecting part of the shallow vessel. A few twigs are there deposited which will act as a strainer with regard to the escaping juice of the berries. Once the boiler has been filled up with the fruit, heated stones are cast in which have the double effect of pressing down and boiling its contents. The juice escaping in the outer part of the tray is transferred when necessary to another vessel. The berries in the

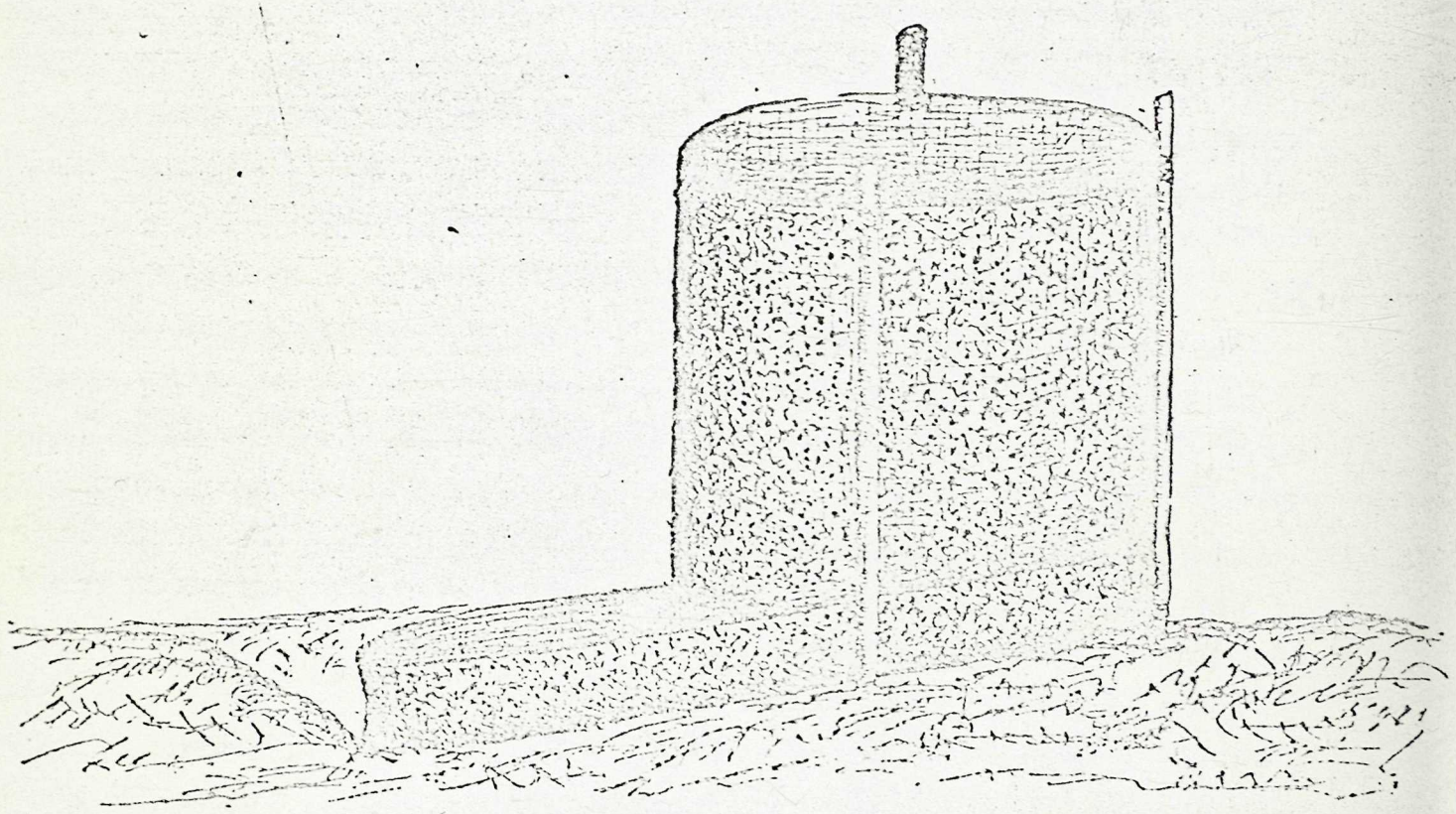

Fig. 119.

boiler having considerably sunk down and the stones beginning to cool, a new supply of both is thrown on top of the mash, which operation is repeated as long as the size of the boiler will allow. After all the juice has thus been extracted, the residue of the berries is thoroughly kneaded, after which it is spread out in thin layers on willow hurdles previously covered with heracleum leaves, and then exposed to the action of the sun and air. By frequently sprinkling the mash with the juice of the berries and letting it dry until it attains the proper degree of consistency,

it finally coagulates into cakes of uniform thickness which are then stored away for future use. When properly prepared, these will keep for years and if sprinkled over with a little sugar, they are of tempting succulency even to others than Indians.

Esculent and Medicinal Plants.

Before proceeding further in our description of native utensils, it may not be irrelevant to complete our knowledge of the means of subsistence of the Western Dénés by a brief nomenclature of the other esculent berries, roots or plants they use as food, as well as of the chief medicinal herbs which they have, or had formerly, recourse to in case of bodily ailment. Their flora, such as represented in their vocabulary, is somewhat limited, inasmuch as, with very few exceptions, only such plants as have a place in their domestic economy are deemed worthy of a name. Question, for instance, a Tsiɣkoh'tin about the native name of a beautiful flower which may strike your fancy, and if it is not that of an edible or medicinal plant, he will look at you wondering if your mind is not getting unbalanced and ask you scornfully: "Do you think that we eat such a thing, that we should have a name for it?" A great many berries they do eat, and therefore honour with a distinctive name These, added to those already mentioned in the course of the present monograph, are:

The small, low-growing blue berry (*Vaccinium myrtillus*) which is common in dry, stony places, such, generally, as are wooded with the scrub pine. These are gathered in the autumn and either eaten fresh, when they are very succulent, or dried and kept until needed for use. In this latter case, they are first boiled in a common tin kettle, then thoroughly kneaded, and spread, without extracting the juice, over small trellis, much as is done with the mash of the service berries. Their Carrier name is *yəu-thə-mai* or ground berries.

A larger species of blue berries (*V. myrtiloides*) is also much sought after and treated, as a rule, as the small ground blue berries. Such is also the case with the swamp cranberry (*Oxicoccus palustris*) which, though rather scarce here, is none the less appreciated by the natives. The Carrier name of the former is *yaɬsəl*, a secondary root; that of the latter *əya'-kə-mai*, or marsh berry, a noun of the third category.

Təɬqe is a large, dark-colored berry, (*Empetrum nigrum*) somewhat acid and very juicy. When not eaten fresh, or seasoned with bear grease, whole basketsful of it are deposited in long trough-like vessels of spruce bark, tucked up at both ends so as to form provisional receptacles therefor. After they have undergone the usual kneading process, heated

stones are thrown over the mash until it has boiled long enough to prevent its deteriorating with age, after which cakes are obtained by drying on hurdles, as practised with regard to the service berry.

A species of high bush cranberry (*Viburnum paneiflorum*), in spite of its pungency, is also much appreciated by the native palate. It comes to perfect maturity late in September, and is generally eaten with bear grease. But when it ripens early enough, and when the service berries are not kept in dried cakes, it is mixed with them to render them more digestible. The service berry, when eaten alone, is rather heavy on the stomach, and the addition of the cranberries is intended to correct this drawback. The Carriers call the high bush cranberry *tsaɂtsé*.

The soap berry *(Shepperdia canadensis)*, which is so unpalatable to a white man, is not the least esteemed of esculent berries among the Western Dénés. It is either eaten raw or dried for future use. In both cases, it requires some preparation to become edible. After it has been mashed in a tin or bark vessel and sprinkled with a little sugar to soften down its bitter taste, it is vigorously stirred with the hand until it springs up into a beautiful rosy foam—whence its name—which is highly appreciated, especially on a hot summer day. If not needed at the time the berries are collected, their mash is put in a spruce bark vessel and boiled by means of heated stones until nothing remains but the roasted residue of the fruit. This is now given the form of the usual plug-like cakes by spreading and drying on hurdles and finally stowed away. When these are required for consumption, they are put in a kettle, dissolved in a little water, and stirred with the hand as in the case of the fresh berries and with similar results.

Two other species of single berried fruit called respectively *tcitcéstetcé** and *noñtza* are generally eaten fresh. As far as I can guess, they belong to the genus *Viburnum*. The first, which grows only on mountainous soil, is black and resembles the service berry, but the natives claim that it is unknown to the whites. The second is a blue berry ripening on very tall bushes.

Nor should we omit in our nomenclature even the berry of the kinnikinik (*Arctostaphylos uva-ursi*), which is prepared for eating by roasting in a frying pan and mixed with salmon oil or the grease of any animal. Its native name is *tonih* in all the western dialects.

The natives also relish any species of edible—and sometimes to us non-edible—berries, such as the raspberry (*Rubus strigosus*), the straw-

* This name, though used among the Carriers, is of undoubted Tsé'kéhne origin.

berry (*Fragaria canadensis*), the black currant (*Ribes nigrum*), which the Carriers call "toad berry," etc. But none of these has the economic importance of those above enumerated.

Besides these and the bulbous roots *'ah*, *sûntî* and *əsroñh* which have been mentioned elsewhere, the Western Dénés find in their immediate vicinity several indigenous plants to diversify their daily *menu* of fish or meat. Chief among these may be quoted the red lily (*Lilium Columbianum*), the bulb of which is used as an article of food by most British Columbian and other American, or even Asiatic tribes. It is cooked by boiling pretty much as is done with potatoes. The natives harvest it almost as soon as it has sprouted out, a short time after the entire disappearance of snow. The Carrier and TsiɊKoh'tin name is *tsa-tcən* or "beaver-stick."

Another plant of a different botanical family whose root is likewise much appreciated as an article of food is the *səs* or sweet flag (*Acorus Calamus*). This root is eaten without any other preparation than cleaning and washing in cold water.

The wild onion (*Allicum cernuum*) is also eaten, root and leaves, either raw or slightly roasted in the ashes. The Carriers call it *t'ɲo-tsə'n*, "stinking grass." So is the root of the dog-tooth violet (*Erythronium giganteum*), which is reputed excellent by the natives. Its Carrier name is *tcilkhe-rez*, a compound word which is unfit for translation.

In the cow-parsnip (*Heracleum lanatum*), and a variety of the same (*kraz*, in Carrier) it is the inner part of the growing stalks which is preferred. It is often used while fresh and unprepared save by the stripping of its fibrous envelope. But if fire is at hand, a Carrier will generally treat it to a slight roasting through the flames previously to peeling off the stalk. The *H. lanatum* is the *kus* of the Western Dénés, a primary root, indicative of its importance in the estimation of the natives.

The marrow of the willow herb (*Epilobium angustifolium*) is also much esteemed, as is manifest from the nature of its Carrier name, Ras. It is eaten before the plant reaches maturity.

Nor do the Carriers disdain the leaves of the Oregon grape (*Berberis aquifolium*), which are simmered in a little water until no liquid remains. This plant, however, was formerly more sought after than is done by the modern Carriers, who call it *ə'tan-teis*, "simmered-leaf."

Another article of food, cheap because very common, but not the least prized by the aborigines is the hair-like lichen (*Alectoria jubata*).

which grows hanging from most coniferous trees, especially the Douglas pine—hence its Carrier name *toh-ra*, "above-hair." The natives submit it, after gathering, to a thorough washing, till it loses its outer colouring matter. They next mix it with dough as one would do with raisins, and bake the whole. The lichen has then on the cake the same effect as would a copious application of yeast powder on a loaf of bread. The Carriers assure me that, thus prepared, it is very sweet and savory. Prior to the introduction of flour, they cooked it with grease.

Although the shaman's influence was great and his services frequently resorted to among the prehistoric Western Dénés, especially the Carriers, natural remedies such as provided by the vegetable kingdom were by no means despised by them. Nay more, their medical flora was rather extensive, and it may be said to their credit, that several of nature's most valuable secrets were no mysteries to them. Among the herbs or vegetable growths esteemed among them for their medicinal properties, I may mention the following :—

Tatlis (Polyporus officinalis), a fungoid growth from the Douglas pine. It was ground down into a fine powder and taken internally in a little water as a panacea against biliousness. According to the dose, it was a purgative or an emetic. It was very effective; so effective indeed as to be really dangerous. For that reason it has been altogether discarded in favour of milder laxatives such as the bark of the elder *(Sambucus racemosus)*, which is pounded while fresh and taken in cold water.

The young shoots of two species of spruce *Abies nigra* and *A. balsamea*, were, and are still frequently, used as a febrifuge or against any kind of complaint resulting in cutaneous inflammation or eruptions. The shoots are thoroughly boiled and the decoction drank while warm.

A decoction of the boughs of the juniper bush *(Juniperus occidentalis)* is also considered effective against such maladies as fever or measles.

In cases of such cutaneous eruptions as particularly affect young children, the diseased part is thoroughly smeared with the mash of the swamp cranberry *(Oxicoccus palustris)*, and it is claimed that beneficial results never fail to follow within an astonishingly short space of time.

The root of the aspen *(Populus tremuloides)* thoroughly chewed and applied on cuts and bruises, is very extensively resorted to as a sure means of stopping bleeding. Excellent and well authenticated results have more than once attested its efficacy. In urgent cases, the bark of the tree is used instead of the root.

The root of two other plants *Ti-loz-reh** a liliaceous plant, and the

* Lit. "Dog—urine—root."

heracleum, though of slower action, is nevertheless reputed effective against hæmorrhage from cuts. It is mashed fine, and a poultice of it is applied on the wound.

Infusions of the bark or leaves of the raspberry bush (*Rubus strigosus*) served as an emmenagogue, while the same parts—or more often still the wood with the bark—of the *Viburnum opulus*, a species of high cranberry, and of the bird cherry (*Prunus pensylvanica*), similarly treated, yielded a fairly good remedy against blood spitting.

They had also several tonics or astringents, among which figured: the wild cherry (*Prunus virginiana*), cold infusions of the inner bark of which were taken as a stimulant; the yarrow (*Achillea millefolium*) and the American sarsaparilla (*Aralia nudicaulis*), decoctions of which are still quite valued; the spearmint (*Mentha viridis*), which was used as a tonic against many ills, and last, not least, the Labrador tea (*Ledum palustre*), which, added to its medicinal properties, was often put to the same uses as to-day the tea of commerce.

In cases of swellings and non-running sores the Carriers use fomentations of the red willow (*Cornus stolonifera*) bark. For running sores and ulcers of any description they profess to have an excellent salve in the decoction of the bark of the osier-willow (*Salix longifolia*) and of the aspen mixed in equal quantities. The mixture forms a milky liquor wherewith the ulcers are first bathed and then rubbed over with the hand, thus causing the extraction of the humors.

Two species of horse tails, *Equisetum hyemale* and *E. pratense*, are valued as powerful helps against retention of urine. Decoctions of the herbs are drank freely until the desired effect is obtained. The leaves of the *uva-ursi* are also used as diuretics, but their properties may have become known among the natives through their intercourse with the whites.

One of the most effective of the native remedies is the *hwollak* (*Artemisia frigida*?) a sage-like plant which is used against local pains and nervous shooting. The leaves are laid over the heated stones of the sudatory, while the patient sits in a reclining position over the steam emanating from them. In extreme cases the leaves are applied while fresh directly to the ailing part of the body, but such are their caustic properties that they cannot be borne more than a few moments.

When no other remedy is available, the stalks of the black currant (*Ribes rubrum*) are cut in small pieces, boiled for some time and the decoction taken as a cough medicine.

To alleviate violent pains, they formerly had recourse to the bulb of

the hemlock *(Conium maculatum)* which they roasted over the ashes, and, after crushing with the hand, they applied to the ailing spot. But owing to the poisonous nature of this root, they now refrain from using it for any purpose.

Of special value to the women as a help after parturition was the *hwupy*, a plant commonly known, I think, under the name of Devil's bush *(Fatsia horrida)*. The bark was mashed while fresh and taken internally with a few drops of water by women just delivered of a child, but whose after-birth had not been, or could not otherwise be, expelled. It did also frequent service as a purgative for persons of both sexes.

Even such delicate diseases as sore-eyes had in the Carriers' estimation a valued antidote in the vegetable kingdom. This consisted in a mixture of the root of the soap berry bush and of the wild rose *(Rosa blanda)* tree. After they had been stripped of their outside bark, the cambium like layer next to the wood was carefully scraped off, mixed with a few drops of clean water and delicately crushed with a flint or a knife till a sort of ointment was formed which was then applied to the eyes. Though sore eyes are by no means rare among the Western Dénés, no application of this sedative ever fell under my observation.

A few other plants or herbs are also used, the medical properties of which have been revealed to the natives by the H. B. Co. people or, later on, by the missionaries. But all those above enumerated are strictly aboriginal medicines.

OTHER BARK IMPLEMENTS.

We now revert to the bark implements. Two models of bark utensils differing slightly in form and much in use from those illustrated in the first part of this chapter are, or were, common among the Carriers. One is the trough-shaped vessel already mentioned as serving to bail in the fruits of the high cranberry. It is of spruce bark, of rude and temporary make, and resembles the *t'ɲs-t'sai* or fish-basket in every particular save that it is deeper. Though it occasionally serves as a boiler with regard to edible berries, it is more often used to cook for their oil the heads of salmon or other large fish.

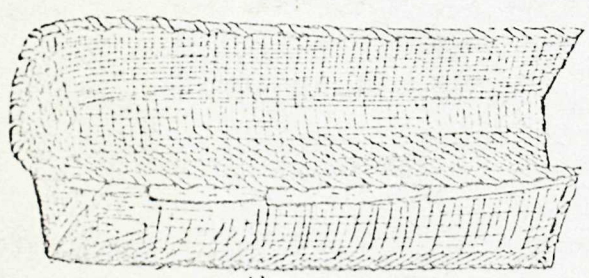

Fig. 120.

The last vessel of Carrier make which remains to describe is now a thing of the past. It was of birch bark, flattish and rectangular, and had but one narrow side (fig. 120). Its brim was, as usual, strengthened by the apposition of a willow switch running along its three sides. It served as a bathing tub for the infants

and, owing to its chief peculiarity, it had to be kept in a slanting position while in use.

The Carrier women originally carried their babes in regular cradles made of birch bark curved up at the narrow end as the basket-tray of our last illustration, save that this part was sewed, not merely stitched in one place as was the case with fig. 120. The bottom of the cradle was prolonged at the broad or open end to serve as a support for the head of the infant. Starting from both sides a hoop of willow half encircled at the proper distance the head of the child, and was intended to allow sufficient breathing room when it was deemed desirable to cover it. The necessary lacings were passed through a band of buckskin bordering the cradle on the outside.

With the advent of the whites these primitive cradles disappeared, to be replaced by the systematic swaddling clothes disposed as in fig. 121, which still obtain among the Carriers. Now, as in olden times, the lacing is done with one string passed through bands of cariboo skin ornamented according to the fancy of the mother. This string is so arranged that by pulling both ends the swaddling envelope is drawn up over the feet of the babe. Progressive mothers—and they form the majority—nowadays substitute for this tightening device strips of cariboo string buttoned at either end over each side of the swaddling clothes.

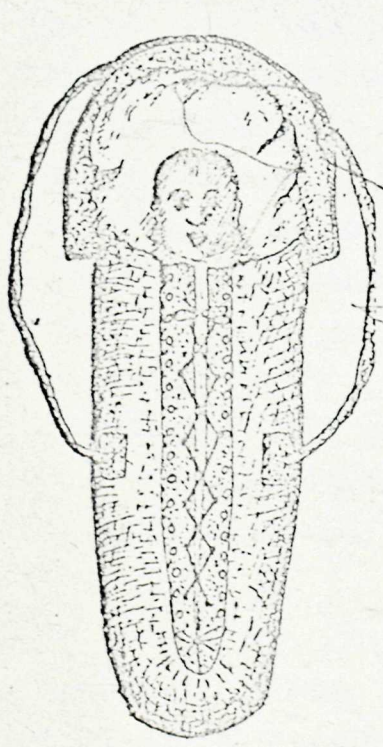

Fig. 121.

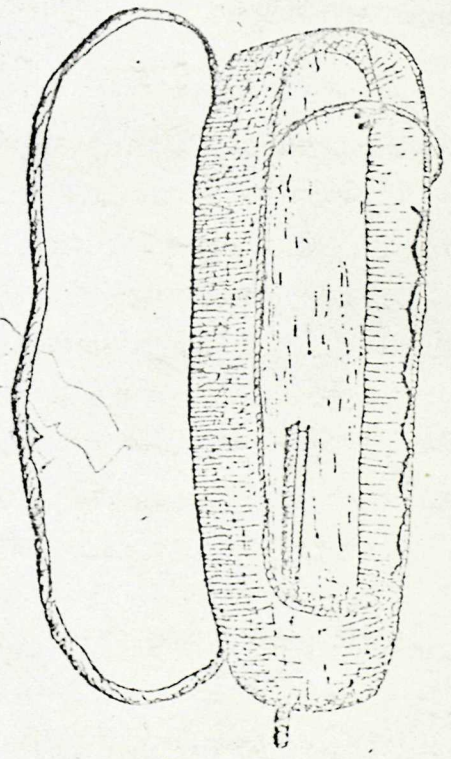

Fig 122.

The TsiɥKoh'tin have preserved to this day their traditional baby-baskets or cradles, of which fig. 122 will give a fair idea. They are made of the twigs of a species of willow, and their bottom is generally

strengthened by the addition of a board. The framework when completed is thoroughly concealed beneath a closely-fitting covering of deer hide sewed on the sides of the basket. As in the original Carrier cradle, breathing room is afforded by means of an osier hoop from which toys or playthings, beaver teeth or nails, etc., hang in sight of the child.

One peculiarity which I think is proper to the TsiɂKoh'tin baby baskets is the bark conduit which may be noticed in our illustration and whose end is to preserve the infant against moisture, and also to reduce to a minimum the trouble consequent upon bringing up such small children.

As the styles of baby cradles differ according to the tribe, even so it is with the mode of carrying them. A Carrier mother carries her child hanging perpendicularly on her back by a strap running across her shoulders and breast, while the TsiɂKoh'tin women carry their baby horizontally on their back and suspended in its cradle by a tump line passed athwart their forehead. In this they simply conform to the custom of their southeastern neighbours, the Shushwap.

The Tsé'kéhne vessels do not materially differ from those of the Carriers, and their mode of treating and carrying the Tsé'kéhne babies tallies also with that of the latter. But the household vessels of the TsiɂKoh'tin have no point of resemblance with any of those I have thus far described. No bark vessels are seen among them, as they replace bark by regular basket-work. I regret my inability to present the reader with an accurate description of their root weaving process. Yet, if memory serves me right, I think that they coil, not twine, the root according to the method illustrated by Prof. O. T. Mason in the Smithsonian Report for 1884* and elsewhere. However, all the household utensils I have seen among the TsiɂKoh'tin are broad-mouthed and wallet-like, none of them tapering up as some of the specimens quoted by the learned professor.

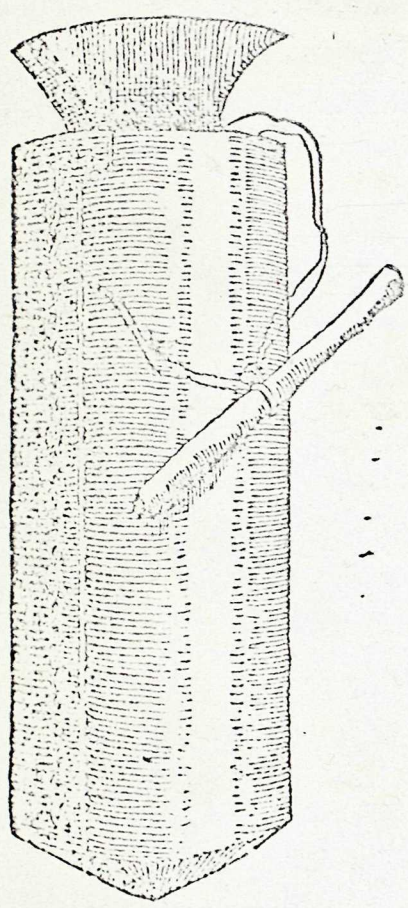

Fig. 123. ½ size.

Their water vessel, the form of which I remember well, is similar to that illustrated on page 18 of Dr. G. M. Dawson's "Notes on the Shushwap people of B. C.,"† save perhaps that it is not quite so narrow at the bottom. Many of them are elaborately orna-

* Ann. Rep. Part II., p. 294, plate V.

† Trans. Roy. Soc., Canada, Sect. II., 1891.

mented with geometrical or animal designs. They are generally of about seven or eight gallons capacity.

A second vessel (*t'ɟasqaz* in TsiɊKoh'tin) much smaller and pan-shaped, does duty as a washing dish and receptacle for cooked food principally the starchy bulbs *suntî* and *əsroñh*.

A third is elliptical and of about the same diameter across its breadth.

It is used as a washing-tub wherein the babies are made to stand naked to be washed every evening by their mothers.

Before we close this chapter, we should not forget to mention the birch bark *tsa-yu-thej* or castoreum bottle (fig. 123) such as it is used among the Carriers. The object of that implement has already been explained.‡

‡ In the chapter on Bone Implements.

CHAPTER VIII.

COPPER AND IRON IMPLEMENTS.

COPPER IMPLEMENTS.

Rev. E. Petitot, arguing in favor of the contemporaneity in the same part of America of the bronze and the iron ages with the palæolithic and the neolithic epochs, has the following to say :—

"Avant l'arrivée des Européans dans la vallée du Mac-Kenzie, les Couteaux-Jaunes et les Flancs-de-Chien connaissaient l'usage du cuivre natif qu'ils trouvèrent sur les bords de la rivière Copper-mine. Ils s'en fabriquaient des couteaux, d'où leur est venu leur nom. Ils faisaient en même temps usage de la pierre polie. Donc nous avons ici contemporanéité de la *pierre polie* et du *bronze*. De leur côté, les Peaux-de-Lièvre, qui ignoraient le cuivre et qui ne se dounaient pas la peine de polir leurs instruments de pierre, avaient découvert le long du Mac-Kenzie, à l'embouchure de la rivière *L'é-ota-la-delin*, du ferologiste, et ils en fabriquaient des aiguillettes et des alènes de quatre pouces de long qu'ils troquaient avec les Thekkané et autres tribus méridionales des Montagnes Rocheuses contre des peaux d'élan à raison de dix pour une alène." *

It is likely that most archæologists will refuse to concede that the use of copper knives by a savage people entitles the makers to be regarded as having reached that stage of industrial advancement commonly called the bronze age. The use of copper is in this case too limited they will probably say. This reason, plausible as it certainly appears at first, is after reflection rather more specious than convincing. For was not this the case even in the old world? Were not stone weapons largely used there contemporaneously with copper or iron implements? No, answers the antiquarian; each epoch or age was very distinct and strictly consecutive.

Let us see.

In Italy, C. Geikie found early uncoined money (*æs rude*) along with polished stone weapons; and a number of flint knives have been obtained from Etruscan graves. Indeed a piece of coined copper money marking

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* *Rapport succinct sur la Géologie des vallées de l'Athabaskaw—Mackenzie et de l'Anderson*; Paris, A. Hennuyer, 1875.

a still later period has been found in an Etruscan tomb alongside with a stone knife. At Bibracte, the most important town of the Ædui in ancient Gaul, scientific exploration has brought to light work on metal and coins mingled with flint arrow heads, polished stone axes and a flint knife. Similar discoveries have been made in many places throughout France.* In ancient Egypt, stone and metal implements were also used contemporaneously.† In the centre and south of modern Africa, the negroes, according to Lenormant "have never known bronze, and work hardly any copper. Instead of this, they manufacture iron wares in large quantities and for this purpose make use of a process which was not communicated to them from the outside. Hence they themselves discovered the method of manufacturing iron, and when they gave up the use of stone implements, they passed to the manufacture of this metal."‡

These few instances chosen among many others will, I hope, suffice to prove that the sharp and almost instantaneous change from one age to another and the strictly successive order generally believed to have been followed in these transitions are, in many cases, more fancied than real. Metal objects were apparently the property of the leaders and the higher classes generally while the lower classes must have contented themselves with the stone equivalents, just as in the Middle Ages only the knights wore steel armour.

That copper and iron were to be found among the Carriers long before these aborigines even suspected the existence of the whites there can be no doubt. But the use of these metals was, of course, restricted to a few fancy objects or working tools. Moreover, in so far at least as that tribe is concerned, neither copper nor iron was indigenous and the former metal only was wrought by its members. Concerning its introduction among the Carriers, I take the liberty of reproducing here a short native legend which I have already quoted elsewhere.§

"In times not very remote, all the Indians (themselves among the rest) congregated at a certain point of the sea coast, around a tower-like copper mountain emerging from the midst of the water. Their object was to decide which tribe should become the possessor thereof. When all had united in shouting, the mountain began gradually to totter, and the Haidahs who are blessed with big heads and strong voices caused it

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* See "Christian Anthropology," New York, 1892, p. 324.

† Ibid.

‡ "*Die Anfänge der Cultur*," vol. I. p. 57.

§ "The Western Dénés," Proc. Canadian Institute, 1888-89.

to fall on their side. 'Thus it was,' they add, 'that those Indians secured the copper mountain, and we have ever since been obliged to have recourse to them for what we require of that metal to make bracelets for our wives and daughters.'"

The reference to this wonderful towering mountain of copper, fantastic as it may appear, might perhaps be explained by the existence of the monumental Pillar Rock on the shore of Graham Island, a sketch of which will be found in G. M. Dawson's Report on the Queen Charlotte Islands.* Even in prehistoric times, some Carriers had evidently visited the Pacific Coast, as may be inferred from a few of their legends wherein some peculiarities proper to that region are introduced with a tolerable amount of accuracy. On the other hand, as most of their copper was imported from the coast, it was but natural that, according to the custom of primitive peoples of assigning a fabulous origin to extraordinary objects, they should associate in their narrative the wonderful pillar-rock with the no less wonderful yellow metal.

I might point here to the adventures of a mythic Carrier, a sort of wandering Jew, who underwent many a stirring experience on the Pacific Coast while in quest of a stolen wife, and who is the first personage mentioned as possessing copper. The fact that the possibly historical data hidden amidst the details of that legend are interwoven with many miraculous circumstances, would lead us to suppose that the knowledge of that metal among the Western Dénés dates back from a rather remote epoch.

Be this as it may, I have never met with more than five kinds of copper objects of genuine Carrier or Tsiɳkoh'tin manufacture. These

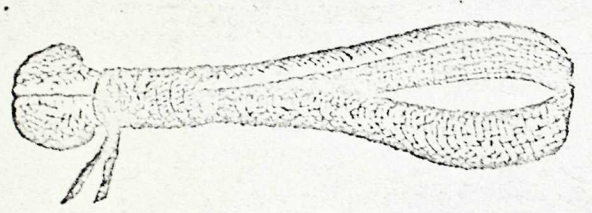

Fig. 124.

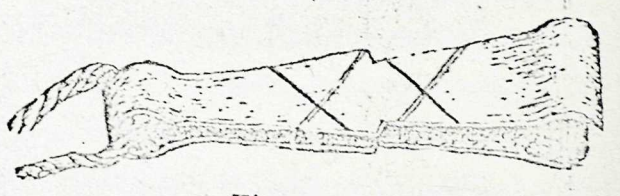

Fig. 125.

are the hair tweezers, the bracelets, the finger rings, the harpoon tips and the dog collars. The hair tweezers† were originally of cariboo horn. They then consisted of two thin pieces of horn given the required shape by means of heating, and tied together at one end with sinew threads (fig. 124). The copper tweezers were of one piece and affected the form represented in fig. 125. The object of both was to remove any super-

* Montreal, 1880; plate ii.

† *T'sɔɳ-anta*, "grebe-bill," a noun of the third category.

fluous facial hair. "Superfluous" should be understood here as synonymous with "any" hair growing on the lips, the chin or the cheeks, since the Western Dénés kept themselves beardless. The prehistoric Tsé'kéhne, if they are to be judged by their immediate successors, the eldest among the modern Tsé'kéhne, indulged in the possession of a queer looking partial moustache, which was obtained by leaving untouched the hair growing on the upper lip below, and exactly corresponding in width with the septum, while on both sides the lip was otherwise free of hair. The tweezers were worn on the breast, hanging from the neck. They are still to be seen among the TsiqKoh'tin and the Tsé'kéhne.

The Carrier *ia-lthan** or metallic bracelets (fig. 126) were of an exceedingly simple pattern. As the hair tweezers, they were originally of cariboo horn; but as commercial relations became more extended, copper was soon preferred in their manufacture. In later times pewter was even adopted and beaten to the desired shape out of the spoons of commerce. I speak in the past time, because among the Carriers especially, such trinkets are now practically unknown.

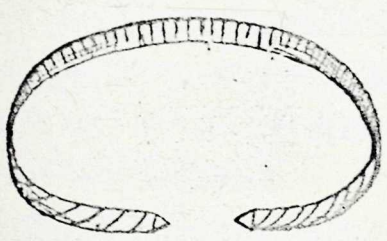

Fig. 126.

When bartered from the Coast Indians, the copper was generally in sticks or slender bars, which were then wrought by hammering by the Carriers. These bars remain almost unaltered when used to give consistency to the collars of their dog-harnesses.† When not ornamented, these harnesses are probably similar to those in use among the eastern Indians, and as such would hardly deserve any mention. But the Carriers' fondness of parade has long prompted them to add to the original pieces the blanket and collar ornaments which I have thought worth the while to show in fig. 127. Of course these two additions are detachable paraphernalia, which are not generally used, except when reaching or leaving a village. The frame of the upper parts is of copper.

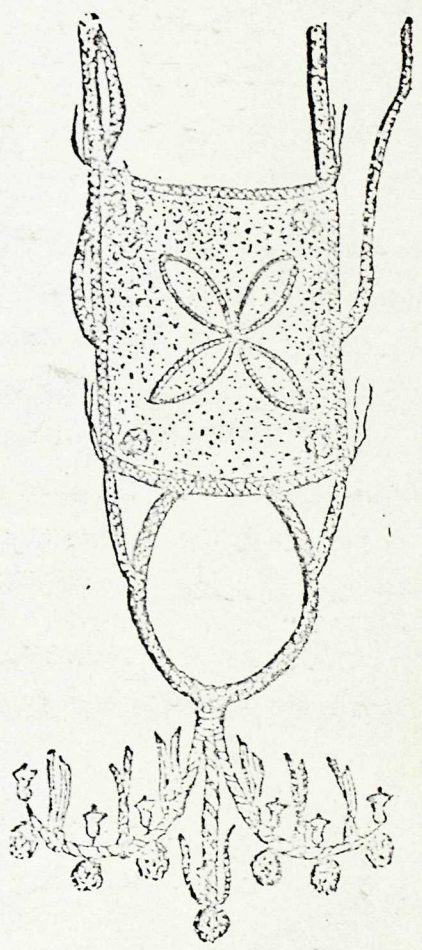

Fig. 127.

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* Lit. "it (of a heavy material) is around."

† *Ti-t'uj*, dog-ropes, 3rd cat. nouns.

Fig. 128 can be adduced as a further evidence of that power of imitation which I have more than once quoted as one of the characteristics of the tribes under study, especially the Carriers. Finger-rings,* it is hardly necessary to say, were unknown among the primitive Dénés; but they no sooner became aware of their existence among the whites than they set upon fabricating them with whatever material at their command. One of the results was the ring sketched above which has been found here, Fort Saint James.

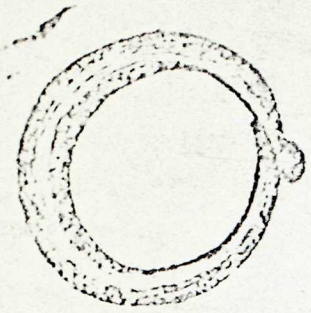

Fig. 128.

IRON IMPLEMENTS.

Whether hematite was known to the Western Dénés prior to their contact with European civilization cannot well be ascertained at the present time. It would seem highly probable that it was among all the tribes but the Carrier, which to-day has no other word for "iron" or iron ore than that used for "knife." Even among the Tsé'kéhne, who call a knife *pés* and iron *tsa-tsoñe* (beaver-dung), it is very doubtful if they ever subjected hematite to any treatment calculated to reduce it to the shape of a working tool. Yet I think I am warranted in asserting that iron implements have been known and used even among the Carriers for at least two centuries, that is one hundred years before they had heard of the whites. The memory of the appearance of the first iron axe at this place (Stuart's Lake Mission) has been kept vivid to this day by the descendants of its original possessor. Their narrative, when shorn of a few excrescences, I believe to be historically true, inasmuch as names of persons and of localities, together with minute particulars connected therewith, are freely mentioned. Their veracity is made still more apparent by the genuine and unbroken genealogy of the present chief of this village up to the first possessor of the marvellous implement. A full account of the deeds of the various personages introduced in the chronicle might prove not uninteresting even to the general reader. For the present I shall content myself with its initial chapter. The chief of Stuart's Lake will be our narrator.

"The first man (*i.e.* Carrier) who ever possessed an iron axe was my grandfather (*i.e.* one of my ancestors). His name was Na'kwəl, and, owing to his rank as one of the most influential notables, but more particularly on account of the great age he attained, he has remained famous among us. He was so old when he died that his hair had turned yellow, after having long been snow-white. He was a most irascible man and

* *La-thəl'tə*, "passed round the finger."

therefore much feared. What his age was when he got the iron axe I cannot say. He must have been a grown-up man and full-fledged "nobleman," since tradition tells us that upon receiving it, he convoked a large crowd of Indians of clans differing from his to a grand ceremonial banquet. Now this can be done only by a tɔneza· or nobleman. On that occasion, the iron adze-blade was suspended from a rafter over the heads of the invited guests so that they might have an opportunity of contemplating it at ease. The implement was considered exceedingly precious. It had come from some unknown place in the direction of Tse'tcah.* It was thereafter taken great care of, and its possession was the means of considerably enhancing my grandfather's prestige among his fellow Carriers.

"Yet it was lost one day under the following circumstances. Some men of Na'kwɔl's family were in the woods cutting spruce branches to cover up the doorway of the winter lodge they were erecting, when the skin line which fastened it to its handle as an adze getting loosened, the blade suddenly dashed off and fell among the branches already cut. By searching among these, the implement must have dropped down in the snow, for it could never be found by natural means that winter."

The story then proceeds to relate how it was subsequently found through the incantations of a medicine man who was richly paid for his trouble, and concludes thus: "This happened a very long time ago, long before my forefathers had heard of the whites."

That this is a fact is shown by a few words attributed to Na'kwɔl which, though still intelligible, are nevertheless quite archaic, and also by the following genealogy of Na'kwɔl's posterity.

1. *Na'kwɔl* must have lived at least two or three scores of years after the acquisition of the iron axe, when he died and was succeeded in a genealogical point of view by

2. *Tcitcanit*, his youngest son, who had two wives and being of a jealous disposition, was secretly drowned by them when in declining years.

3. Tcitcanit was succeeded as *tɔneza·* or nobleman by a maternal nephew named *Tsalekuyé*. This personage killed a man with an iron pointed lance, and was himself killed when he was getting much advanced in years.

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* Near the Skeena river. See the map accompanying my paper, "Are the Carrier Sociology and Mythology Indigenous," etc.? Trans. R. S. C., Sec. II., 1892.

4. His successor was *Kwah*, who made war and slaughtered hosts of Lower Carriers. By a second wife he had

5. *Atsuj*, a second son, who died five years ago, over one hundred years old, since he remembered the arrival of Sir Al. Mackenzie's party in the country. He left three generations of descendants.

Reference has been made to a prehistoric iron pointed spear. Tradition furthermore records the killing, in ante-European times, of a cariboo with an iron or steel knife or dagger. This happened on this lake, some 15 miles from here. Below, the reader will also find figured a steel dagger which came into the possession of the Carriers some 110 or 120 years ago—their country was discovered in 1793. It was instrumental in killing several men and was originally much larger. The handle was also of a different description, the knife being one of a class of steel daggers called in the dialect of the Babines *t'jak-nanist'sər*, or "rounded at the end" (of the handle). It probably resembled the instrument represented by fig. 108 *e* of Niblack's "The Indians of Southern Alaska."*

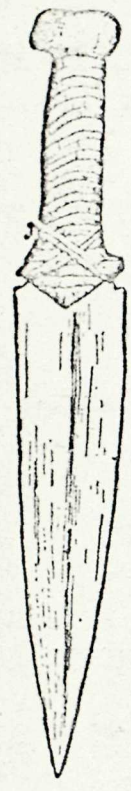

Fig. 129.

The presence of steel implements, even so early and so far away in the interior of British Columbia, is not calculated to disconcert the archæologist, considering the frequent intercourse the inland tribes had from time immemorial with the Coast Indians. Both Cook and Dixon ascribe the introduction of such tools among the Coast tribes to the Russians whose first recorded expedition on the Northern Pacific Ocean dates from 1740. But Na'kwəl's iron axe cannot evidently be attributed to the influence of the Russians, since it had apparently reached this place long before I. I. Behring's expedition was fitted out. Coast Indians must naturally have been slow in parting with such valuable implements. Moreover it should not be forgotten that not more than fifteen years before the advent of the whites among the Carriers, iron tools were still so rare among the Coast tribes that in 1779 a Captain Gray master of one of the Boston trading vessels, is reported to have got at Nootka, on Vancouver Island, two-hundred otter skins worth about $8,000 for an old iron chisel!†

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* Ann. Report, National Museum, 1888.

† Christmas No. of the Victoria "Colonist," 1891.

Among the steel implements distinctly Déné in manufacture and actually in use among the Carriers, are the hole-borer or drill, the moose skin scraper and the crooked knife or spoke-shave.

Fig. 130

The first is made with a nail or any available piece of iron securely lashed on the side of a stick or fastened in a slit at its extremity. Occasional holes are obtained by rubbing the drill between the hands while strenuously pressing down the implement. But when a set of fine holes, such as those of the snow-shoes, is desired, the Carriers have recourse, in

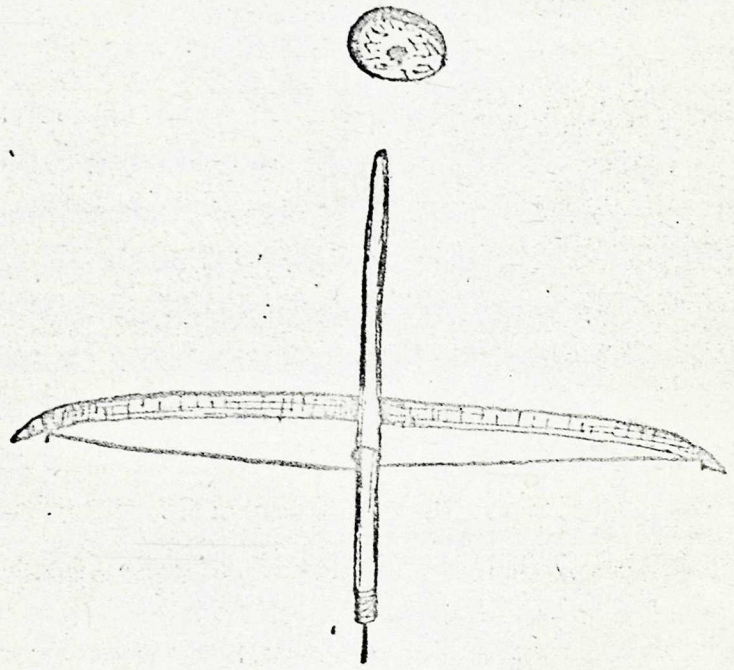

Fig. 131.

addition to the borer, to a small bow and a hard piece of wood which they manage as shown in fig. 131.

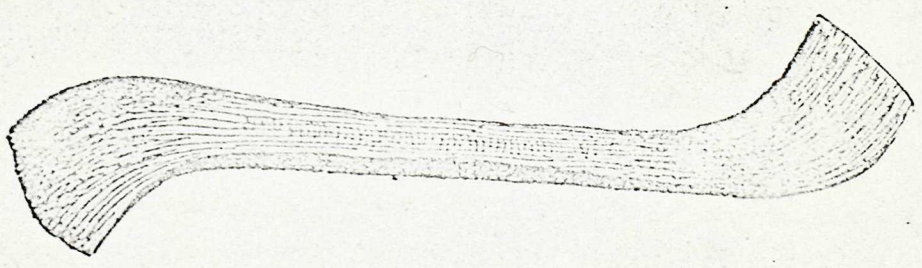

Fig. 132. ½ size.

The name of the tool shown in fig. 132, *ûnrwoł*,* or moose skin scraper, explains its *raison d'être*. It has been patiently ground down to its present shape from an old file.

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* Second category of nouns.

Identical material and mode of manufacture have likewise resulted in the accompanying spokeshave or *ɔras*, the "drawknife." It is of the greatest usefulness to the modern Indian, so much so that there is not a house among the Carriers wherein it is not to be seen. They employ it to finish the inside of their canoes, to shave off the rods used in the construction of their fish-traps, to fashion the side and transversal sticks

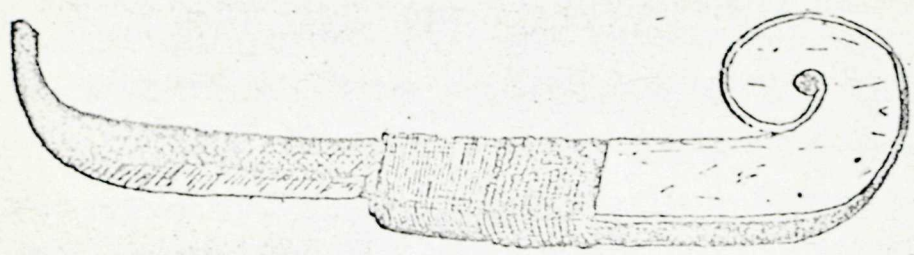

Fig. 133. ½ size.

of their snow-shoes, and to do almost any kind of manual work in connection wherewith a white man would use a draw-knife or even a common pocket knife. The lower grade of *ɔras* is made of the blade of a table knife. The handle of the specimen above illustrated is of cariboo bone, secured to the blade first by copper wire and then by rawhide lines wrapped around. The whole tool is of native manufacture.

CHAPTER IX.

Skin Objects and Twined and Textile Fabrics.

SKIN OBJECTS.

Under this head we will consider any native items wherein dressed or undressed skin enters as the chief component part.

Passing references to the treatment of hides have already appeared in the course of the descriptions of the implements used by the Western Dénés to free them of hair, fat or blood. It now merely remains with me to add that after the skin in preparation has been rubbed over with the brains of the animal, it is allowed to pass a whole night steeping in cold water. It is then subjected to several rinsings in hot water, alternating with thorough scrapings, until, being quite dry, soft and pliable, it is given the form of a bag and placed over the smoke of decayed wood or other vegetable matter. Once it has been thus smoked on both sides, it is ready for use.

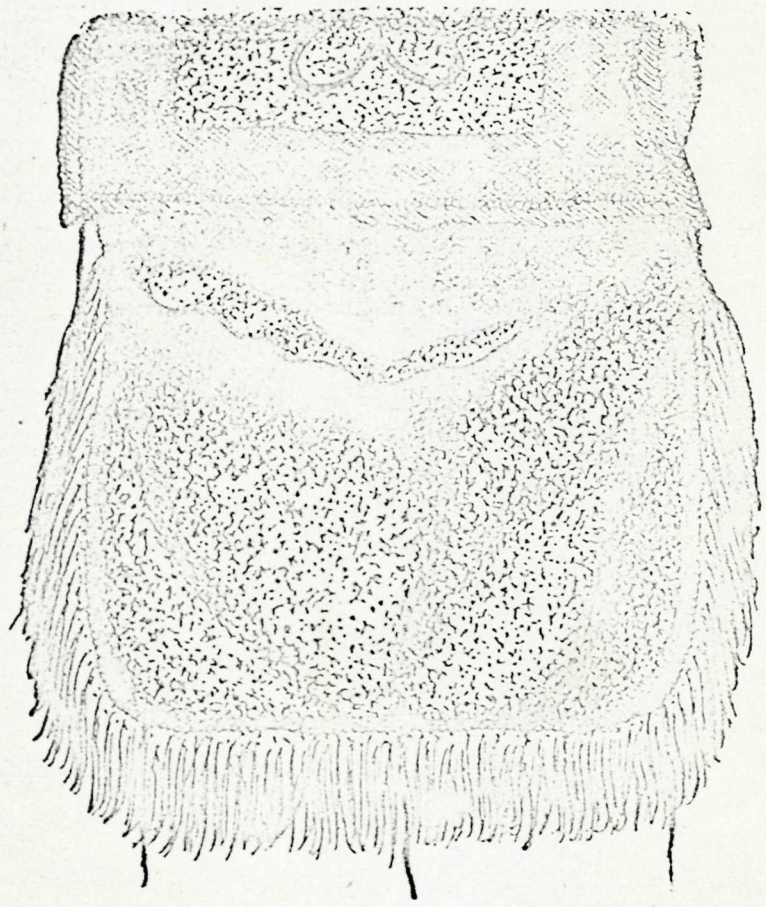

Fig. 134.

Among the Tsíɳkoh'tin skin dressing is practically confined to the hide of the deer, while among the Tsé'kéhne moose and cariboo skins

only are tanned for use. Moose is rare within the Carriers' territory, and still more so is the deer. Therefore, with that tribe, mocassins, mittens and gloves, bags, etc., are almost exclusively of cariboo skin. We will here pass over skin articles, which belong to the native accoutrement or wearing apparel, as these shall be treated of in the next chapter.

Confining ourselves to household or non-personal objects, we may mention no less than seven varieties of leather bags or pouches in use among the primitive Carriers. Fig. 134 represents the household bag or *eztqai.* This is generally the property of women and serves to contain the family chattels, but more particularly such as are proper to the women, clothes, pieces of tanned skins, working tools, articles of ornamentation, etc. This bag needs no description ; the cut cannot but give an exact idea of its form. The bead work in some is much more elaborate than in the specimen herewith figured. Before the introduction of glass beads, dyed porcupine quills served to ornament this and all other kinds of skin receptacle. The cover piece of this *eztqai* is also, I am told, a modern innovation. This bag is never used as a packing contrivance.

A variety of the same, but much reduced in dimensions, was formerly the regular badge of widowhood among Carrier women, so much so that the custom which required its use has given the Carriers their distinctive name. Among them cremation was the national mode of disposing of the dead. As a rule, on the morning following the funeral ceremony, the relatives of the deceased, accompanied by his widow, were wont to pick up from among the ashes of the pyre the few remaining charred bones which, if too large for the purpose in view, they did not scruple to reduce by breaking to the desired size, These were then handed to the widow to daily pack till her liberation from the bondage consequent on her new condition. This gruesome task devolved on her for the space of at least two or three years, and in extreme cases was prolonged to a period of some five years. Upon the final giving away of property which was the signal for the cessation of mourning, these bones were deposited with the satchet containing them in a box laid on the top of a funeral column near the village.

Some of these satchets were still in existence a few years ago. Their cover, instead of fitting over the whole bag as in the household *eztqai*, reached only half way down. Its sides were also sewn with those of the satchet itself, so as to preclude the possibility of its contents being accidentally thrown out. Of course, a string was attached to the satchet and passed across the neck or or breast of the packer. A lining of birch

bark also gave the receptacle a certain degree of consistency, and served moreover as an additional protection for the bones.

The regular packing wallet* herewith figured is still very generally used for carrying provisions during long journeys and might be termed the native buffet. It is of two different materials; its main parts are of undressed moose hide with the hair out, while its sides, top and bottom are of tanned cariboo skin. The skin of the upper part of the legs of the animal is chosen in preference and sewn together, as may appear from a glance at the illustration below. The packing band is also of untanned moose skin. On either side of the bag, ears of tanned skin are pierced each with two holes, the lower one of which is intended to receive the strap when the walllet is not full. The broad or middle part of this line passes athwart the forehead of the packer, and, after sliding through one of the holes at either side of the bag, its loose ends are drawn forward and tied over the breast, so that the position of the burden can be changed at will.

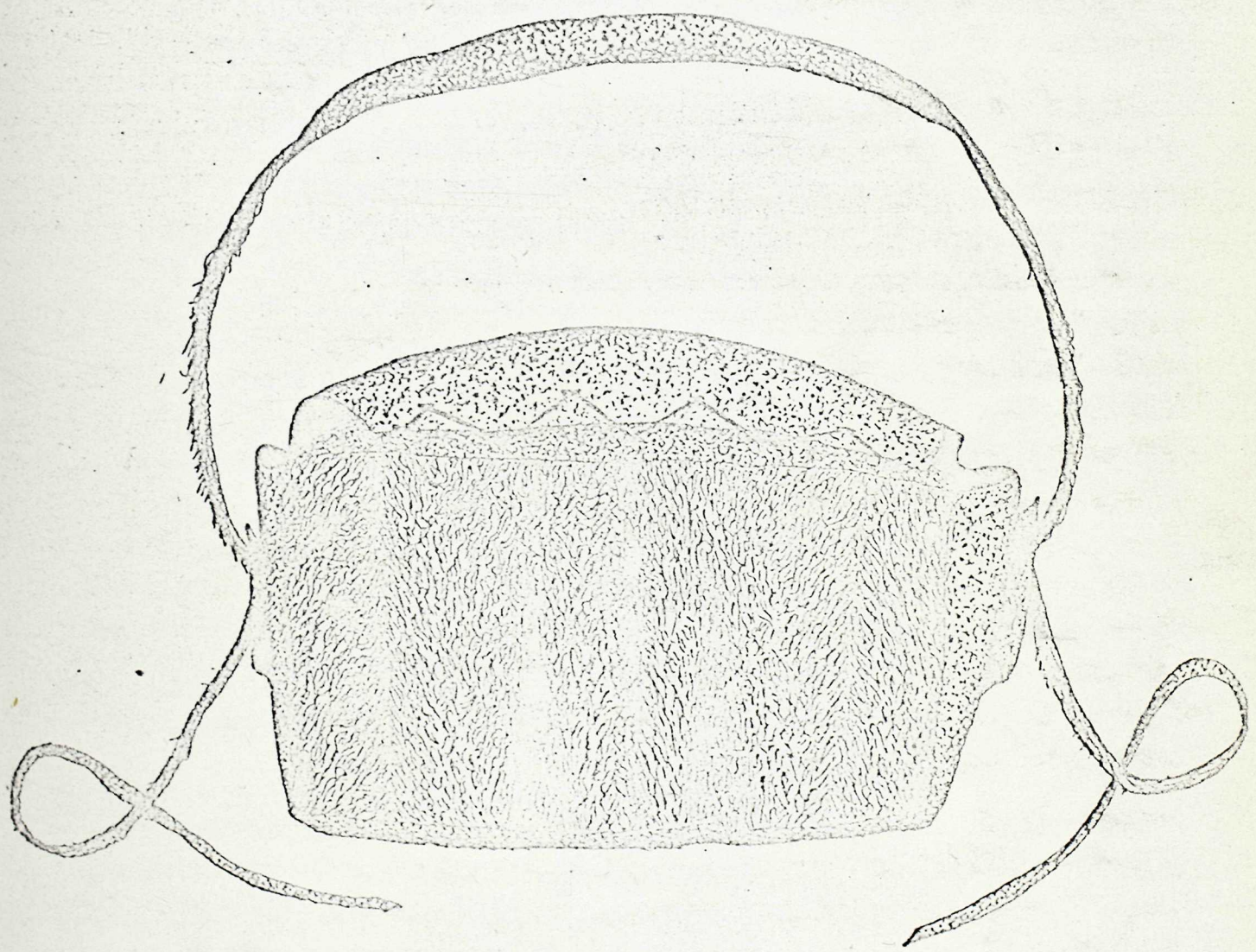

Fig. 135.

* Tu'kéz, sec. root.

Not uncommonly these wallets or knap-sacks are made entirely of dried salmon skins sewn together. Once the flesh of the fish has reached the proper degree of stiffness, it is carefully torn off and one of the skins is shredded into fine filaments which serve as thread.

The *ju'kéz* generally does duty in connection with heavy burdens, which means for anybody *au fait* with native sociology that it is the appanage of the women. The men have also a packing bag of their own intended as a receptacle of such light burdens as are incident to short trips, and which shall be described further on.

The fourth variety of leather bags is the dog-bag, which is so much like a common saddle-bag that I refrain from figuring it here. No harnessing device is connected with it, it is simply lashed on the sides of the canine with a separate line.

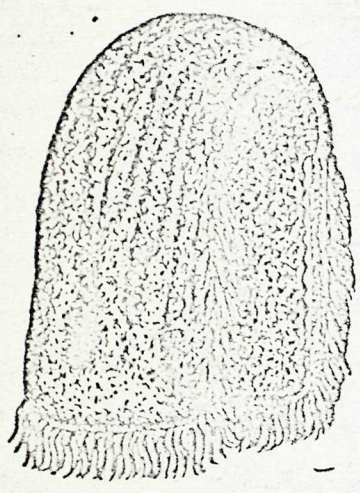

Fig. 136.

Fig. 136 also represents a double-bag; but this is proper to the huntsman. In one end of it he keeps his provision of powder, and in the other that of shot or balls. Both halves of the bag are shut by tying around the strings attached immediately below the common or middle opening. Out of this ammunition pouch the huntsman fills up as often as necessary his powder horn, and his ornamented shot pouch which are parts of his accoutrement.

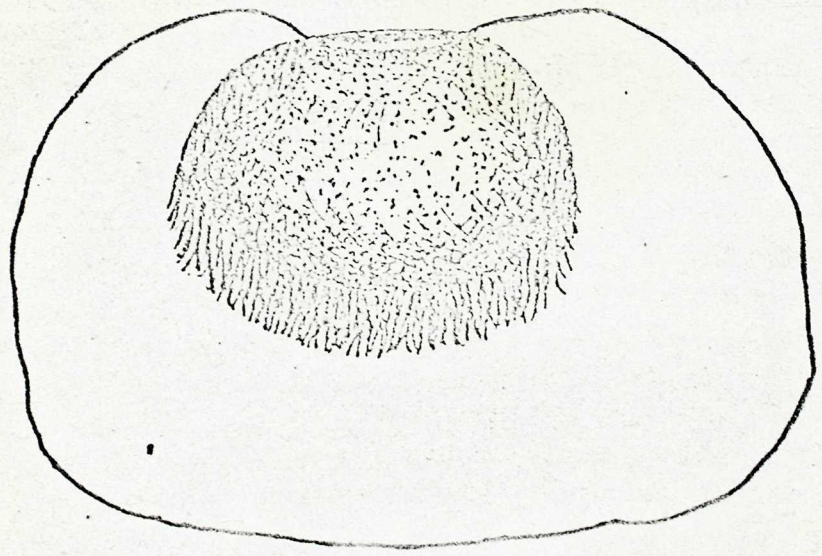

Fig. 137.

Here we have a *Kwon-zoz* or fire-bag. Its use has ceased with the introduction of matches, and its name is now given to a small pouch of different pattern, though somewhat similar in intent. The former served to carry about or keep at home the tinders and parched hay originally

required to start a fire with the fire drill or more recently with the fire steel. Its elliptical form was probably intended as a help in guarding its contents against rain or moisture. As an additional measure of precaution, the pouch was generally carried under the arm pit suspended from the neck.

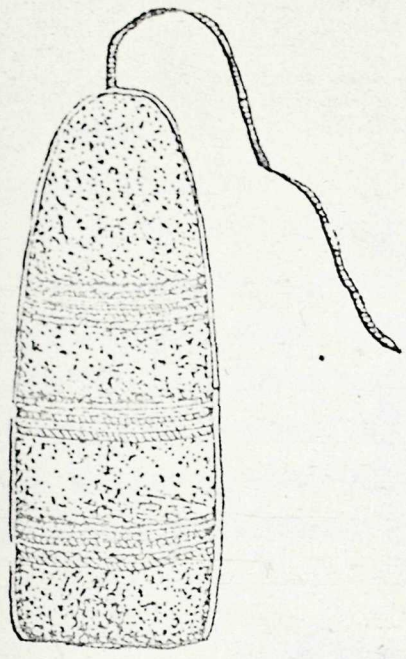

Fig. 138.

Its modern substitute is of common cloth in the form of a flour sack and with two strings so arranged at its mouth that the pouch can be shut by drawing them apart. Matches and tobacco with a pocket knife are generally the only things kept in this Kwənzəz.

Fig. 138 represents a needle and thread pouch. Although originally of tanned skin it is now almost exclusively of black or blue cloth trimmed with ribbons or coloured tape.

To complete our list of skin objects of Déné manufacture, we should add to the above the *pe-ɜ̄ta* (wherein one sits), a sort of cuirass in use in prehistoric times especially among the Carriers. It had the form of a sleeveless tunic falling to the knees, so that it protected the whole body, since those aborigines generally shot kneeling. Its material was moose skin which, when sewn according to the proper pattern, was soaked in water, then repeatedly rubbed on the sandy shores of a stream or lake and dried with the sand and small pebbles adhering thereto, after which it was thoroughly coated with sturgeon glue. Being again subjected before drying to another rubbing over sand, it received a new coating of glue, and after this process had been repeated three or four times, it formed an armour perfectly arrow proof.*

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* In his *Appendice relatif aux armes de pierre des Indiens arctiques* published in 1875, the Abbè E. Petitot, speaking of the Dénés of the Mackenzie Basin, says that "ces Indiens arctiques prétendent qu'ils n' ont pas toujours habité sur le sol où nous les avous trouvés, mais qu'ils ont vècu, à une époque fort éloignée, dans une patrie plus belle que la présente. . . . Dans cette terre . . . bien tour dans l'occident, un peuple puissant opprimait les Loucheux et les Peaux-de-lièvre. Ce peuple se rasait la tête, portait de faux cheveux et se coiffait de casques. . . . Ses guerriers se couvraient la poitrine d' une tunique de peau d' élan revêtue d'une foule de petits cailloux coagulès en manière d' écailles (cuirasse); ce qui les rendait comme invulnérables à leurs traits. . . . A cette époque les Déné-Dindjiés faisaient, disaient-ils, usage de lances, qu' ils m' ont dépeintes comme des couteaux fixés par une ligature au bout d' une perche; d'épieux, sorte de cornes munies d' un crochet et également emmanchées; d' arbalétes; de dagues, et enfin de boucliers." Then the learned missionary adds that "*aucune de ces armes offensives et défensives. . . . n'a suivi les Déné-Dindjiés en Amerique.*" The italics are mine, and it is hardly necessary to remark that the line thus pointed out would never have been written had its author been acquainted with the original Carrier sociology. For, as

OBJECTS OF MIXED MATERIAL.

As may be seen by figs. 139 and 140, the Déné drums, though possessing minor characteristics of their own, do not essentially differ from the tambourines in universal use among the North American Indians. In every case we have merely a dressed skin—which is here of cariboo—stretched ove a narrow hoop. The Carrier drum (fig. 139) not only had no bottom strings, but its makers even dispensed with any cord as a means of holding the instrument. The same piece of skin in which almost consisted the whole drum was cut on the reverse or back side into four strips tapering to the centre into regular strings which were knotted as shown above, *b*, and which served as a means of grasping the instrument.

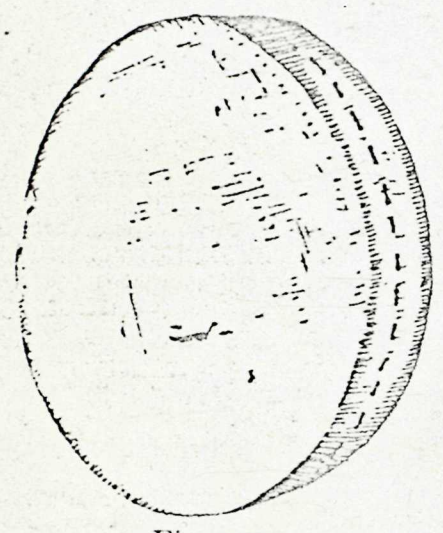

Fig. 139 *a*.

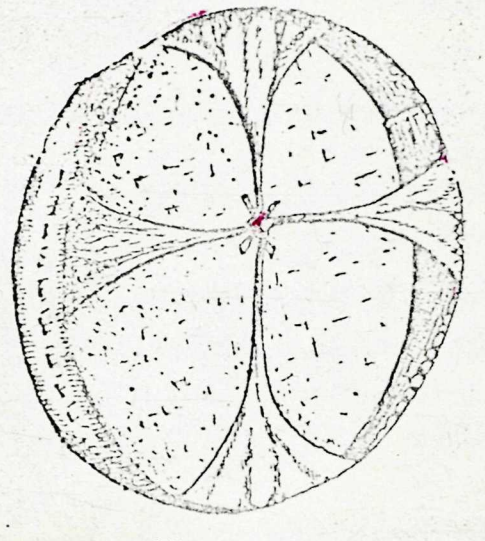

Fig. 139 *b*.

The Tsé'kéhne drum (fig. 140) though apparently a very simple piece of workmanship, evidences much greater ingenuity on the part of its contrivers. Not only does it possess the bottom strings designed to enhance its sonorousness, but these very strings are so disposed that they help not a little in using the instrument. After passing beneath the frame of the drum they are drawn up over it under the encircling skin, and again introduced through the middle of the hoop from which they protrude inside in the shape of a loop through which the thumb is passed

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a matter of fact, all the arms and defensive weapons above enumerated had their counterparts on this side of the Rockies but a short time ago. In that "skin tunic covered with small coagulated pebbles," we recognize, of course, the *pe-šta* just described; the lances regarded by Petitot, after his informants, as so very ancient were the *sarthz* spoken of on page 62; the épieux or spears are not materially different: Petitot describes them as "hafted hooks" and it so happens that the Carrier name of these weapons means "hook-sticks." The cross-bows we have likewise seen in use among the Tsé'kéhne, while the daggers and the shields were no less common among the Carriers. Nay more, even the "false hair," or wigs were in vogue here as late as thirty years ago. These will be found described in our Chapter on Dress and Personal Adornment.

with a double object in view: that of helping in holding the instrument and of tightening or loosening the bottom strings at will and thus regulating the sound of the drum.

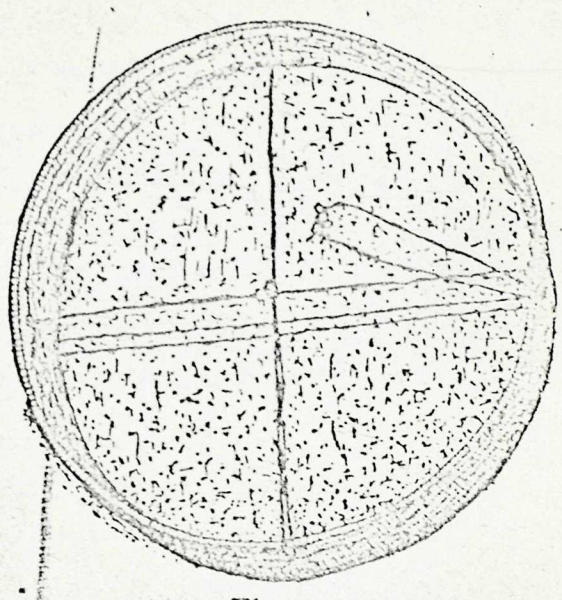

Fig. 140.

That portion of the Carrier—and possibly the whole of the Tsi[Koh'tin—tribes which is adjacent to the Bilqula Indians formerly used square drums. But this circumstance should be regarded merely as a further evidence of the Western Dénés' innate power of imitation. The drums are called *thoñrole* in Carrier.

Any stick at hand, padded or otherwise, served to beat the drum.

It seems almost incredible that in a country, where for at least five full months every year snow covers the ground, snow-shoes should have been practically unknown until a comparatively recent date. Yet, if we are to credit the natives, this was formerly the case with the Carriers, the most populous, and, actually, the most progressive of the four Western Déné tribes. The Tsé'kéhne used snow-shoes from time immemorial; but we are told that not more than 100 years ago, only the most prominent among the Carriers possessed that indispensable adjunct to winter travelling. Therefore with that tribe winter hunting was formerly well nigh impossible. The natives still relate how their ancestors painfully trudged on trunks of trees chopped down so as to form a continuous line or trail over the snow whenever necessity constrained them to wander any little distance from their winter quarters. I fully expect that their story will task the credulity of my readers, and I give it only for what it may be worth. I am simply repeating here what I have been told many a time.

Be this as it may, the Carriers are to-day as well provided with winter walking implements as they profess to have been originally destitute of

them. Apart from the snow walking stick, they now have no less than four very distinct varieties of snow-shoes *('aih)* each of which is known under a different name. These are the *khé-la-pas*, the *pt'ɲ*, the *'aih-za* and the *sɔs-khé*.

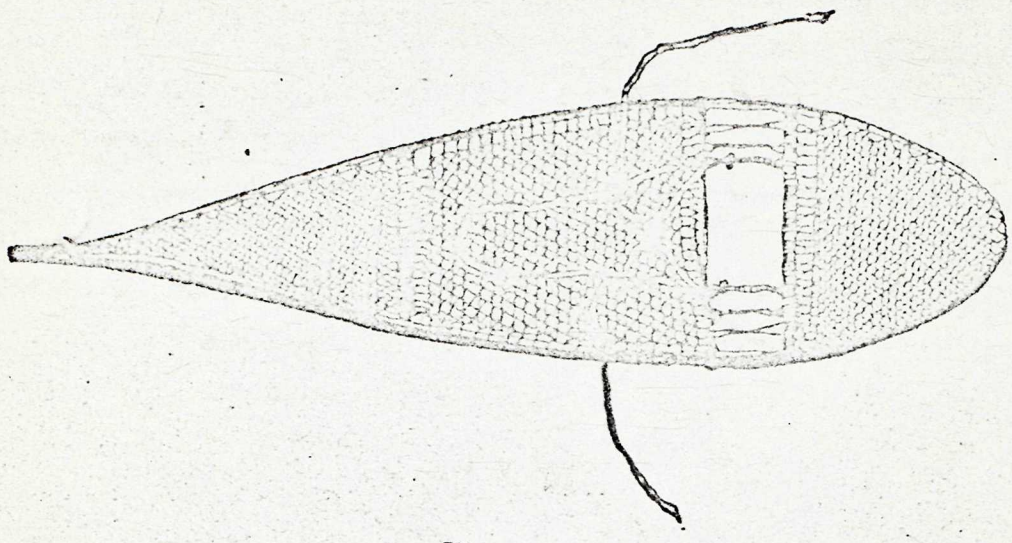

Fig. 141.

The *khé-la-pas** was the first model of snow-shoes known to our aborigines. It is still used in cases of urgency, when better or more fashionable snow-shoes cannot conveniently be made or, under all circumstances, by poor or unskilled people. Nevertheless this form is now obsolete, and is generally laughed at by the possessors of more elegant implements. The ground stick of this snow-shoe is of one piece from fore-end to tail, and the whole is left flat, as is the case, I think, with most of the snow-shoes in use in Eastern Canada. Fig. 141 represents a *khé-la-pas*.

The finer netting or filling of every Carrier snow-shoe is of delicate cariboo skin lines, and the coarse or middle one is of moose rawhide line. As these implements are said to be adventitious here, I will refrain from going into the details of the netting process which our Indians are not likely to have materially altered since the introduction among them of these winter commodities. Suffice it to say that a whole independent filling in is made out of a continuous string. The ground or side sticks are generally made of young saplings of black spruce or of Douglas pine *(P. murrayana)*; but those of mountain maple *(Acer glabrum)* or of mountain ash *(Pyrus Americana)* are more esteemed, though heavier. In all cases the cross-sticks are, as a rule, either of willow or of birch.

In fig. 142 we have the most recent type of Carrier snow-shoe. It will be seen at a glance that it is not inelegant. It is the *pt'ɲ* or "stitched together" by allusion to the peculiar form of its head. To

* "Mocassin (or *chaussure*)-end-rounded;" by allusion to its form.

facilitate walking, this is curved up and so retained by means of two or three lines twisted in one solid cord. To add to the gracefulness of the fore-end and prevent it from shrinking in, an additional bar is inserted some distance therefrom, and the resulting tension is also corrected by a transversal cord binding fast the extremities of the two sticks. The ground netting passes under both bar and cord. The name of this variety of snow-shoes indicates that the side sticks were originally united at both ends by means of stitches of skin lines; but to-day small nails or screws are more commonly used. Little tufts of coloured yarn issuing from each side of the frame are intended to add to the elegance of the implement. Such ornaments at the hind part of the snow-shoes distinguish the women's from the men's snow-shoes.

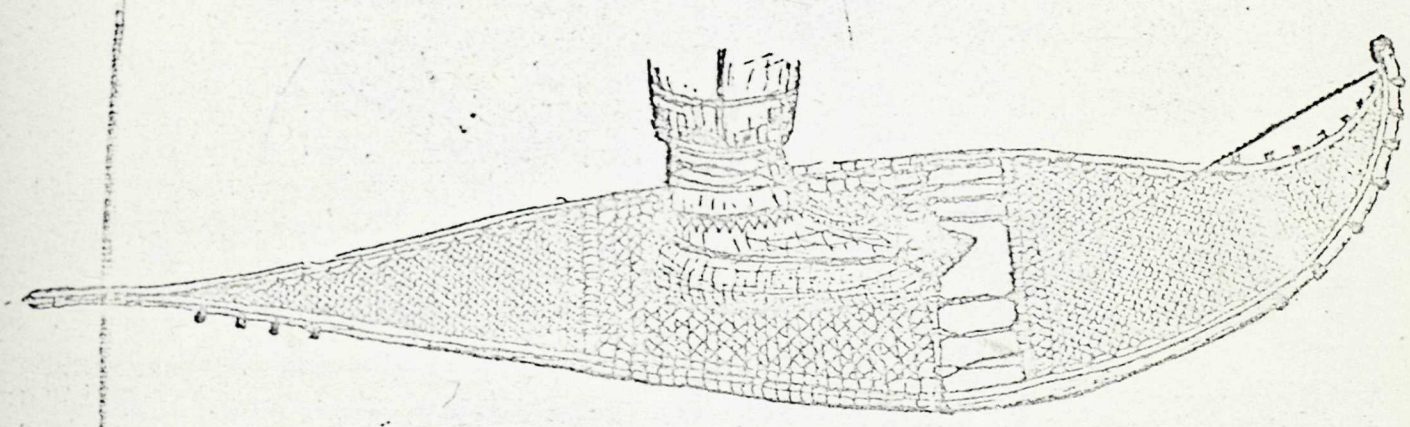

Fig. 142.

The artificial bending of the side sticks is obtained by two different methods. In the first case, such parts of the wood as are to be worked upon, are carefully wrapped with strips of willow bark and thoroughly heated by close application to the fire. They are next gradually pressed up with the hand or by forcing against the ground, when their ends are solidly tied so as to prevent the wood from returning to its original shape. However, this is more commonly steamed or rather "cooked" in boiling water, such parts of the sticks as cannot be introduced in the kettle or boiler being operated on by pouring thereon spoonfuls of hot water until they have become sufficiently pliable.

A third model of snow-shoes quite as common, if not more so, is the *ʻaih-za* ("snow-shoe only," or ordinary snow-shoe). In this, as in the preceding, two sticks are employed to form the frame, but instead of terminating in a sharp front end, their fore-ends are thinned and joined together with a strong lashing of rawhide lines thereby forming a rounded instead of an angular head. In other words, this snow-shoe is a long khé-la-pas made out of two side sticks and curved up in front as the ɒt'ɻu. Therefore the additional cross-stick and string noticed in the latter are wanting in this unpretentious style of snow-shoe.

The Tsé'kéhne snow-shoes are remarkable for the number of their cross-sticks. They generally have six of them, three in front, and three back of the middle or coarse netting. They thus gain in solidity what they lose in lightness.*

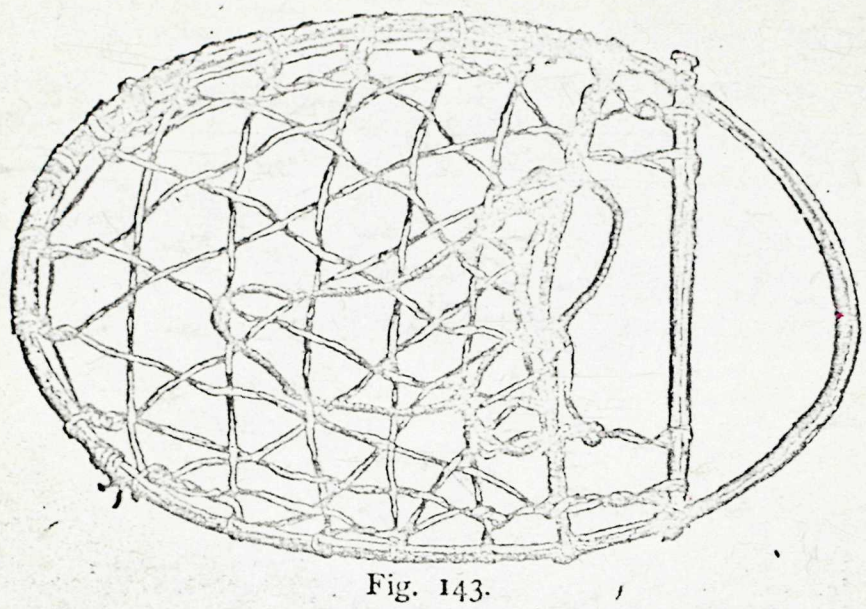

Fig. 143.

The last variety of Carrier snow-shoes is herewith figured. Its form will no doubt explain its native name, *sɔs-khé*, "black bear foot." It is proper to little children before they are sufficiently grown up to use the common snow-shoes. Not unfrequently, women, especially those who are poorly circumstanced or unprepared for a heavy fall of snow, will be seen wearing similar, though of course much larger, snow-shoes. Naturally the frame of such primitive implements is composed of only one stick whose ends are rudely lashed together. Instead of having the cross-stick notched in as in the above figure, it is more generally forced in a shallow hole mortised at either side of the frame.

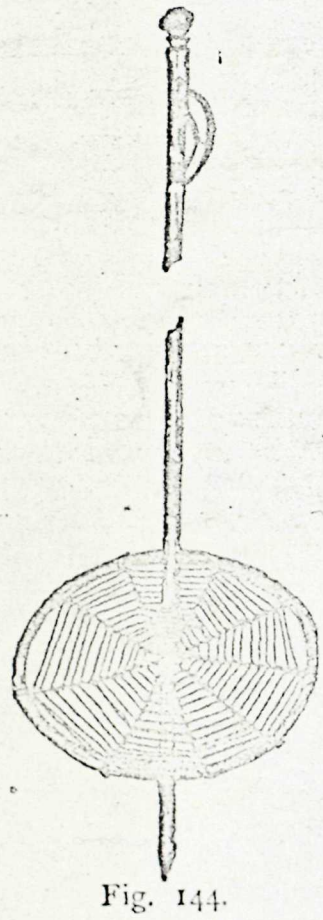

Fig. 144.

As these implements are essentially temporary, they are often of a rude description. Such is not the case with the *ɔt'ɔu* and the *'aih-za*. Not only are the wooden parts of these carefully shaved and scraped over, but they are generally daubed with red ochre, and in not a few cases covered with a coat of red or blue paint.

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* The reason of this is their great length which is intended to deaden the creaking of the frozen snow caused by the short snow-shoe, and thereby not to betray the approach of the hunter.

Here we have the winter walking-stick* already alluded to. It renders to the hand of the traveller over snow fields the same service as the snow-shoe does his feet, since its circular appendage (fig. 144)

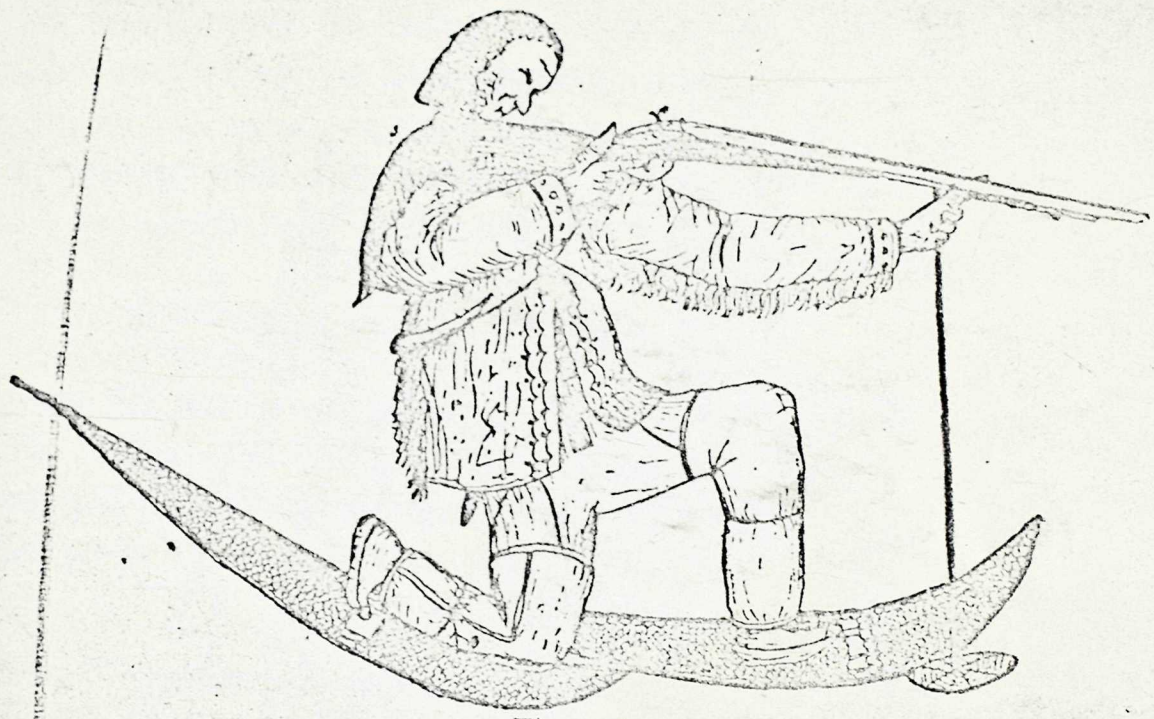

Fig. 145.

prevents the stick from sinking too much in deep snow. It has moreover another very valuable advantage which I have tried to illustrate through fig. 145. The hand of the hunter, warm and trembling from the excitement of the chase, if passed through the leather loop which often

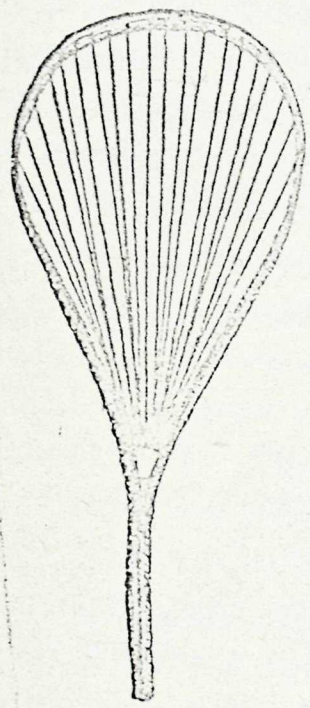

Fig. 146.

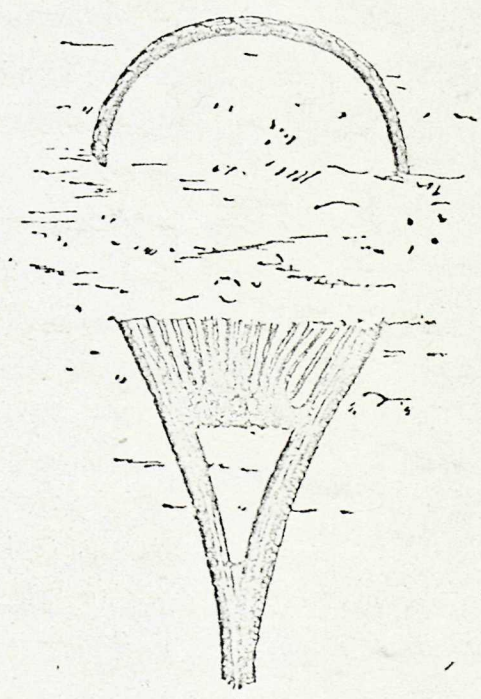

Fig. 147.

accompanies the upper part of the staff, can thereby be steadied and find a reliable support for the barrel of his gun while in the act of

* *Thez-mas*, "walking-stick rounded" by allusion to the circular appendage.

firing. Despite these undoubted advantages, this walking-stick tends to become obsolete in several localities.

But one implement now remains on our list of undescribed wood-and-skin items. This is the ice-scoop or *ɲupas* of which an idea may be gathered from fig. 146. It is brought into requisition to scoop out of the hole one is making in the ice the broken pieces driven in with the *atĕ* or ice-breaker. The frame is usually of mountain maple. Fig. 147 will explain the connection between the strings and the frame.

TEXTILE AND TWINED FABRICS.

We now come to the twined and textile fabrics of the Western Dénés. The latter are very few; indeed the weaving industry might almost be described as null among those tribes, since the rabbit skin blankets were originally the only genuine textile fabric manufactured among either the Carriers, the Tsé'kéhne or the TsiɲKoh'tin.

The weaving of these could hardly be more primitive. The first step is of course to spin, or rather to twist on the naked thigh, the strips of the rabbit skins. These are previously steeped in water to facilitate the cutting and spinning operations. Each skin is made to yield one single band, and each band is knotted end to end so as to form a continuous cord.

A frame or loom is first erected with poles of the proper dimensions and secured either by planting the two side pieces in the ground, or, more commonly, by leaning them against each wall of any corner in the house. Over the two cloth-beams, the skin cord is wound so as to form the warp. As for the woof, a separate strip is knotted in its middle part to the last left hand thread of the warp in such a way that two threads result which are then twisted together, then entwined with the next warp thread, again twisted together, again entwined with the next perpendicular thread, and so on until the last thread of the warp is reached, when the operation is resumed from the right to the left. Each successive woof thread is added immediately under the preceding one so that the weaving, if weaving there be, is always in a downward direction. Whenever the web becomes too low for the convenience of the weaver, web and warp are made to revolve on the loom beams up to the suitable height. The web is then momentarily steadied by means of a string attached on either side to the perpendicular poles of the loom. No batten or any similar device is used. Fig. 148 will give some idea of the whole process. The cut *a* represents a cross-section of the web.

a

The TsiɂKoh'tin and Carrier women now weave fairly good belts or girths out of the yarn they get at their trading posts. But this is a new industry among them and we need not tarry in its description. Suffice it to say that they use wooden healds as those of the Zuni Indians. Indeed, I think that the whole method of girth weaving is practically identical with these two heterogeneous stocks.

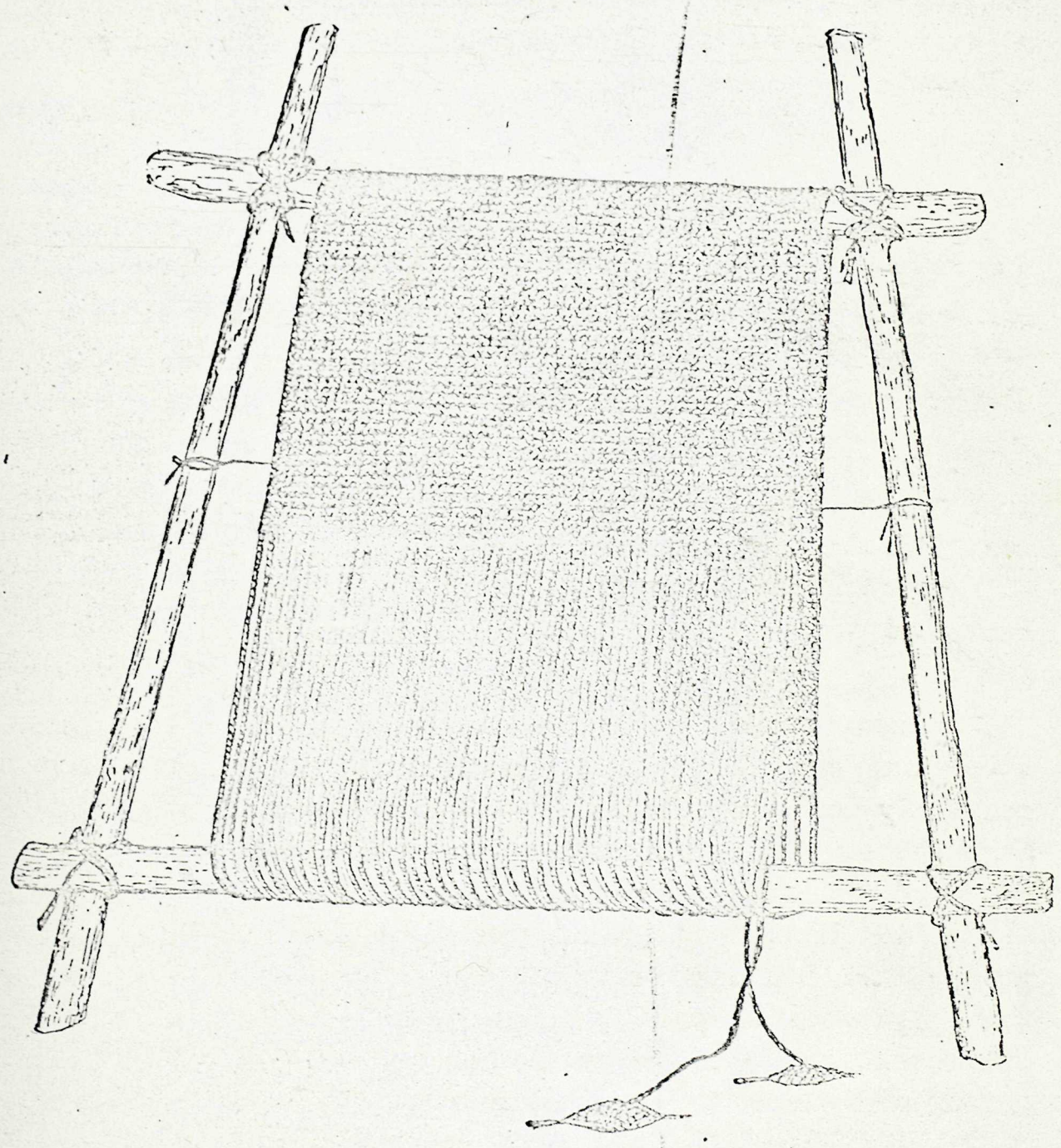

Fig. 148.

The TsiɂKoh'tin women also weave or plait mats commonly used to spread on the floor or ground instead of a table cloth, the *menu* of the family repast round which each person squats while partaking thereof. The material is a sort of rush or juncaceous plant, the exact species of which I could not determine. Matting is an unknown industry among the Carriers and the Tsé'kéhne.

With regard to the mode of netting, the drag-nets of the Western Dénés are of two kinds: one is intended for service against any species of fish, with the exception of the sturgeon, and the other is of use to capture the latter fish exclusively. Fig. 149 will explain the manner of

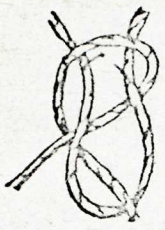

Fig. 149.

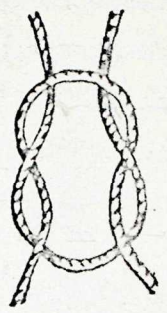

Fig. 150.

knotting the sturgeon net, while all the other kinds of netting, whether drag, scoop, or dip-nets, or even, the packing bags which shall soon be described, are knotted, as shown in fig. 150.

No mesh-stick is used while the Carrier is working at the smaller varieties of nets. It is replaced by the middle finger of the left hand. In this case, the netting-needle also consists merely in a narrow piece of board scalloped at either end to receive the twine which is wound around. But when at work upon large-meshed nets, our aborigines have recourse to the picture frame-like wooden implement herewith figured. This is

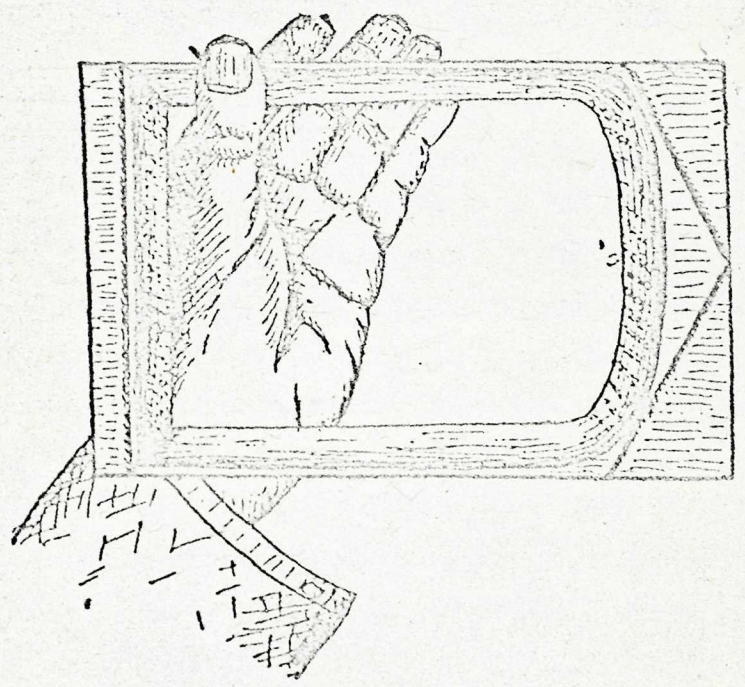

Fig. 151. ⅓ size.

carved out of one piece and serves as a mesh-stick. It has replaced the original wooden horse-shoe made of a bent twig. In this case a regular netting shuttle is also resorted to. As this is in every particular identical with that common among white fishermen, it is but natural to infer that it is here a borrowed article.

The meshes of the sturgeon net are about ten inches square, while those of the beaver nets are based on the distance between the tip of the thumb and that of the index finger when both are outstretched. The width of any kind of fish-net of the larger variety corresponds with that of seventeen meshes of the same net. The nets intended for smaller fish have their meshes from ¾ of an inch to one inch and a half square. About twenty of the former dimensions form the width of the net. All kinds of drag-nets measure at least one hundred feet in length.

Among the Tsé'kéhne both hands outstretched with the thumbs tip to tip are the standard measure for the width of the beaver net. Large nets require twelve such units, while the smaller ones have only nine, or thereabouts. Such nets never exceed twenty-five feet in length.

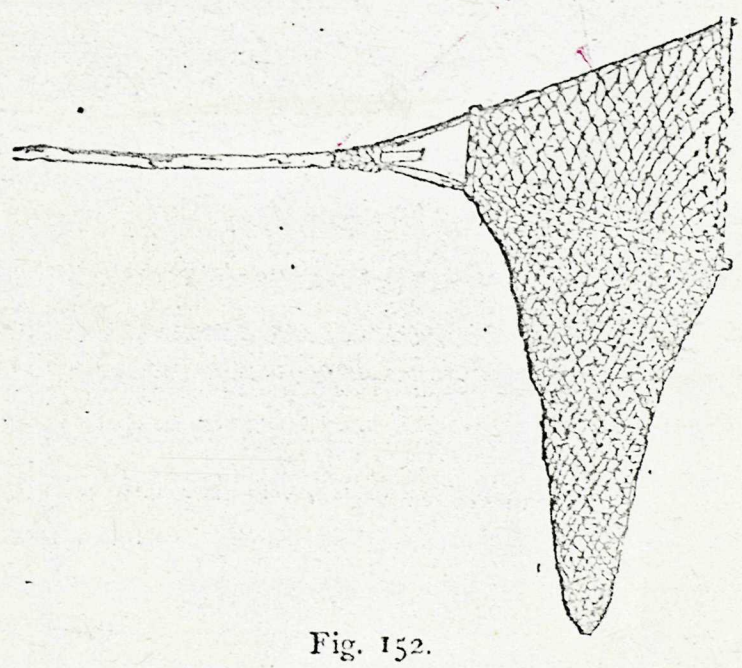

Fig. 152.

Identical in netting are the two kinds of dip-nets * in use among the Carriers. The first (fig. 152) serves either to catch salmon or to scoop out the smaller fish which periodically swarm up certain shallow streams. When doing service against salmon, it is dipped in the water and then left until a capture is effected. But if used to catch small fish, it is managed as a ladle. Its make will be easily understood by a glance at the above figure. It is from five to six feet deep.

Fig. 153 represents a smaller variety of the dip-net. It serves in a few places only, and, as a rule, its period of usefulness does not exceed four or five days in one year. During the first warm days of each recurring spring, immense numbers of the *thé'mɔk*, the very small fish which we have already mentioned in another chapter, ascend to the surface of the water in a few lakes and become an easy prey to the Indian women who, armed with this net, scoop out canoe loads of it in

* *Pe'-thɔkaik*, "wherewith one scoops," a verbal noun.

one single day. Less than a week thereafter, not a fish will be seen of the myriads that were basking in the sun. Of course, the meshes

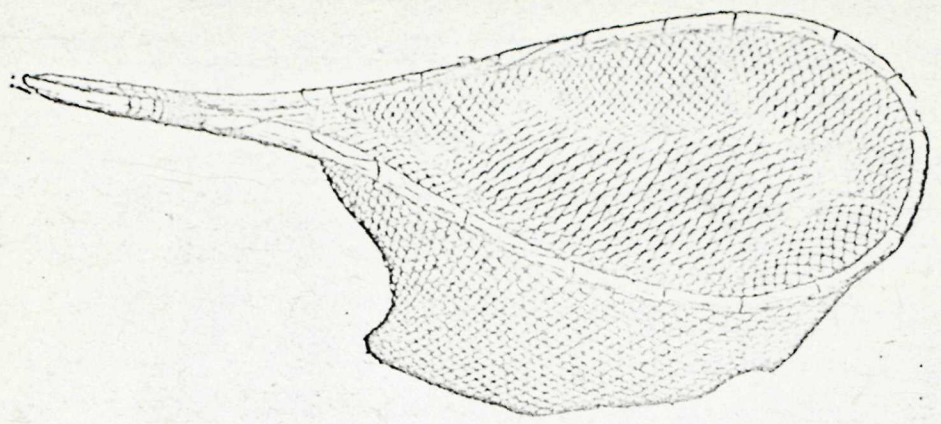

Fig. 153.

of the dip-net resorted to as a means of securing them are proportionally small. They are scarcely a quarter of an inch square.

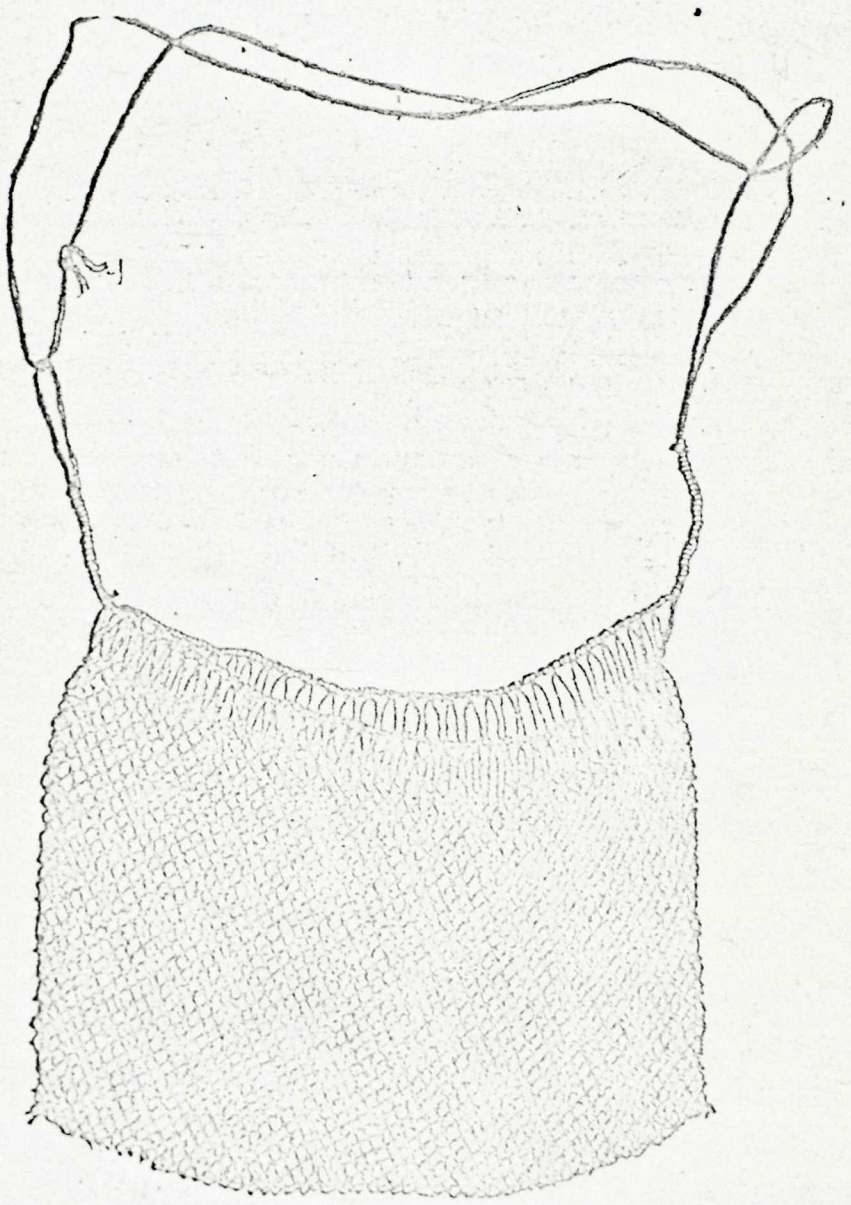

Fig. 154.

The nets of our aborigines were originally of the fibre of either the nettle (*Urtica Lyallii*), the willow (*Salix longifolia*) bark, or a species of

wild hemp called *hwonɣa* in Carrier. The plants were carefully dried in the house, crushed with the hands, and their fibres extracted by pulling up with the right from the left hand, pressing the stalks down on the ground. The shreds were then spun by twisting on the thigh. Naturally this was the work of the women. Nowadays fine Holland twine is used instead.

Though the skin of the beaver is occasionally used to make beaver-nets —as is the case when the animal is found so decomposed that its fur has lost its value—yet such nets are generally of cariboo skin cut in fine strips called "babiche" in the parlance of such Indians as parade an acquaintance with the dialect of the H. B. Co's. employees.

Such is also the material of the *t'ɣuɣ-ən'kez'*,* or packing bag of fig. 154. This is to the men what the moose skin wallet (fig. 135) is to the women. It serves to carry to short distances light burdens such as a lunch, peltries to the trading post, provisions for an unimportant journey, etc. It is also very commonly used as a game-bag. The above figure represents the t'ɣuɣ-ən'kez' such as is still made among the Tsé'kéhne, and as it was originally among the Carriers. But of late years the latter, having learned from their missionaries to have a greater regard for the physical weakness of the gentler sex and to do themselves at least a part of the packing, use it for heavier burdens than those for which it was originally intended. This has rendered the rounded cord through which it is carried uncomfortable. It is now replaced by a regular leather thong, which also runs round the rim of the bag.

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* T'ɣuɣ means "rope," and the desinence of the compound word *'kez*, which implies "direction, tendency" towards a place, is common to all packing devices.

CHAPTER X.

DRESS AND PERSONAL ADORNMENT.

COMMON DRESS.

It would be difficult at the present time to reconstruct in all its details the national dress of the prehistoric Western Dénés, if indeed there ever existed any national or uniform costume for each and all of the different tribes and sub-tribes under study. Sir A. Mackenzie, in his account of the voyage of discovery he made in 1793 through part of their territory, might perhaps enlighten on this subject the reader who can have access to his narrative.* Not enjoying this advantage, I must content myself with what I have learnt from daily intercourse with the most reliable among the older Carriers.

Speaking of the dress of the Eastern Dénés, the Rev. E. Petitot has the following to say :—

"Outre la blouse de peau blanche à queues décorées de franges et de breloques metalliques, qui fut le costume primitif des Déné-Dindjié et que portent encore les Loucheux, ceux-ci, ainsi que les Peaux-de-Liévre y joignent un pantalon de même matière et aussi richement orné, qui est cousu avec la chaussure. Il est porté par les femmes comme par les hommes. Les tribus plus méridionales remplacent le pantalon par les cuissards ou mitasses que des jarretières retiennent aux jambes, et par un pagne oblong d'une étoffe quelconque.

"La robe des femmes est trés courte et orneé d'une profusion de franges, de houppes de laine, de verroteriès et de breloques sonores. La chaussure générale est le mocassin, ou soulier de peau molle qui emprisonne et dessine le pied comme un gant le fait de la main. Durant l'hiver le renne, le castor et le liévre arctique sont mis à contribution pour fournir à l'habitant du désert des vêtements aussi chauds que légers et commodes.†

That the dress of the Western Dénés considerably differed from that of their Eastern congeners such as above described is beyond the possibility of a doubt. And no wonder. Being of an imitative turn of

* Voyages from Montreal, on the river St. Lawrence, through the continent of North America, to the Frozen and Pacific oceans ; in the years 1789 and 1793, etc., London, 1801.

† Monographie des Déné-Dindjié, p. xxiv ; Paris, 1876.

mind, and living, most of them, in close proximity and with frequent intercourse with the Coast Indians on the one hand and the Shushwap on the other, they could not fail to accommodate themselves to their environments. It may be taken for certain that their wearing apparel was, as a whole, rather meagre and scanty. This remark does not apply to the ceremonial costume of the Carriers, which, as will soon be seen, was quite elaborate and complicated.

The summer dress of the men consisted mainly, if not entirely, of a tunic, the breech piece, the leggings and the mocassins. The tunic was a loose vestment which the Indians now compare to a shirt. Its material was tanned cariboo skin, and it descended to the thigh or thereabouts. It had no tail-like appendage as that of the Eastern Dénés. This tunic was uniform neither in cut, nor in material, as poor people made it of almost any available skin with the fur on, and gave it the form best suited to their means. Well-to-do Carriers decorated this garment with a multitude of fringes to conceal the seams. The strands of these were sometimes further embellished by means of porcupine quills dyed yellow or green.

The breech-piece and the leggings were also of the same material, cariboo skin. The latter covered the legs in their whole length, and were kept in position by a string tied to the leather belt on each opposite side. They were furthermore secured below the knee by means of ornamented garters (see fig. 145). These breech cloth and leggings without trousers were still worn here by a few men not more than twelve years ago. Leggings of identical style are still in common use among the men, but during the winter months only, and they are now worn over the pants.

The national foot gear is, and has always been, the mocassin. This was originally of the dressed skin of the elk *(Cervus Canadensis)*. But the poorer classes frequently made it of untanned marmot skin, or even of the skin of the salmon. The mocassins are now uniformly of dressed cariboo or moose skin among the Carriers and Tsé'kéhne and of deer skin among the TsilKoh'tin. An idea of their present form may be gathered from fig. 142.

Owing to the nature of the material of these mocassins, our aborigines generally went barefooted in rainy weather, and to-day the women and the children at least still adhere to this custom. It must be added that, progressive as the Carriers are, there is not among them a single man who would undertake a journey of any importance, nay even a short trip, without the traditional mocassins. Even the most advanced young men profess to be unable to walk any considerable distance with our common leather shoes.

All the Western Dénés wear mittens, which are made of the same material as their mocassins. Even during the fair season, they will never do any kind of manual work without having them on. They are suspended to a cord of plaited yarn passing behind the neck and over the shoulders, so that, even when they are not in actual use, there is very little risk of losing them. The wrist-band is invariably ornamented with stripes of blue and red cloth, together with colored ribbons, according to the fancy of the wearer.

Gloves are now used, but were unknown in prehistoric times.

Instead of the hood common among their kinsmen of the Mackenzie Basin, the Carriers formerly wore a dainty cap of marmot skin made in this wise:—A band, some three inches broad, was cut from the skin with the hair on and secured at either end so as to form a crown-like head-dress. Over this was sewed a circular piece of similar material leaving out a brim of the same width as that of the band. This projecting part of the skin was then slit into a fringe which rested gracefully on the original head-band.

This description applies to the summer cap. The winter head-gear consisted of a hemispherical bowl of woven rabbit skin strips without fringes. Both summer and winter, men and women wore the same style of cap.

The summer dress of the women did not materially differ from that of the men. The tunic was simply longer and oftentimes ornamented round the shoulders and back with a row of pendent cariboo and beaver claws or teeth. For the sake of convenience a girdle also secured the folds of that robe over the waist. They wore, and among the Carriers continue to wear, leggings like the men.

During the cold season both sexes, but more especially the women on account of the outdoor work to which they were subjected, added to the foregoing a sort of small blanket of undressed skin of any small fur-bearing animal which covered their breast from the neck to the waist. This pectoral blanket was attached with strings behind the neck and also secured by the outer girdle round the waist. We have already seen that in olden times a swan's skin sometimes served an identical purpose.

The body was further protected against the inclemency of the season by means of a large cloak of lynx skins sewed together and worn with the hair outside. The more conservative half of the Tsiqkoh'tin tribe have retained to this day the use of this fur cloak. But it is worn among them with the hair next to the body, and the material is, as with the poorer Carriers, marmot instead of lynx skins. The Tsiqkoh'tin women

transform it into a sort of gown by tying it round the waist with a girdle of leather, from which hang beaver nails or teeth, old thimbles or shells of exploded brass cartridges which produce during their walk a jingling sound much appreciated by the native ear.

Winter and summer, the members of the three tribes under consideration wrap their feet with square pieces of blanket, *khé-thol** which are to them the counterpart of our stockings.

With the advent of the whites the dress of the Western Dénés gradually changed, until it became, what it is now, practically that of the H. B. Co.'s people, with the few additions necessitated by the nature of the former's avocation. However, skin coats identical with that illustrated through fig. 145 are still occasionally met with, especially among the Tsé'kéhne and Babine tribes.

The foregoing remarks, as I believe, will give a fair idea of the aboriginal costume such as it obtained among the Western Dénés, without reference to rank or age. But, when treating of the natives' wearing apparel, one should not forget that even their psychological ideas are not without influence on its nature. We should remember that most dreaded creature, the pubescent girl. She was considered among the Carriers so much of an *être à part*, that she must constantly wear some badge to remind people of her terrible infirmity, and thereby guard them against the baleful influences which she was believed to possess. This consisted in "a sort of head-dress combining in itself the purposes of a veil, a bonnet and a mantlet. It was made of tanned skin, its forepart was shaped like a long fringe, completely hiding from view the face and breasts; then it formed on the head a close fitting cap or bonnet, and finally fell in a broad band almost to the heels. This head-dress was made and publicly placed on her head by a paternal aunt, who received at once some present from the girl's father. When, three or four years later, the period sequestration ceased, only this same aunt had the right to take off her niece's ceremonial head-dress."†

The latter sentence applies to the daughter of untitled parents. In case the maiden was of noble birth, the first anniversary of her entering

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* "Foot-platform." The native names of the different parts of the wearing apparel are herewith given, as they may afford a clue, when considered from an etymological standpoint, to the relative degree of importance or antiquity of the articles thereby denominated. Head-gear of any description, *t'sʔR*; coat or tunic, *tsîl*; breech-piece, *tsan*; girdle, *sé*; cloak (and blanket), *tsat*; leggings, *khé-tsih* (wherein-the-foot-is-passed); mocassin, *khé-shwat*, or in composition *khe* (synonymous with "foot"); pectoral blanket, *pɔtsichuz* (that—being a soft stuff—which covers), a verbal noun.

† The Western Dénés; Proc. Can. Inst., 1888-89, p. 162.

upon her maturity witnessed the imposition, with befitting ceremonies and the usual banquet, of a sort of diadem such as herewith figured.

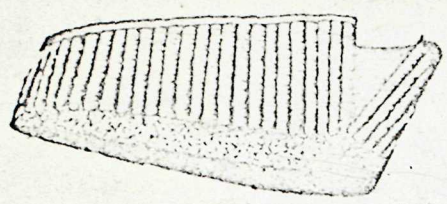

Fig. 155.

The ground part of this was a band of tanned skin which was fringed from about one inch and a half above the bottom up to the top. Each strand of that fringe was passed through a dentalium shell and then sewed up at the top to an encircling strip of skin. As this crown was lower on the back than in front, shells of different lengths were chosen according to the place they were to occupy. A lining of skin, with or without the fur on, was then added, and the lower corners of the ends stitched together, as shown in the cut. Upon crowning the maiden with this shell diadem, the paternal aunt became heir to the discarded bonnet with fringe and mantlet.

Both diadem and bonnet were articles of every day wear, and genuine ceremonial head-dresses.

Not only pubescent girls, but even such boys as were reaching the same stage of life had their fingers, wrists and legs encircled with rings or bracelets made of sinew entwined with down. Neglecting these precautions would have exposed the careless party to premature infirmities and incapacitated the young man for the fatiguing exercise of the chase.

The Western Dénés of the old stock, and especially the Carriers and the Babines, were not wanting in articles of personal adornment. Among head ornaments, they had the ear-pendants, the nose ring or crescent, the *ni-*Kə*-dîn'a*, the hair pendant and, among the Babines, the labret.

Two very distinct varieties of ear-pendants* obtained among the Carriers. The first consisted in a bunch of four buckskin strings passed through pairs of dentalium shells and hanging from the ear, as shown in fig. 156. As soon as glass beads became known, some were inserted between each of the two shells suspended from each hole in the ear. A small beaver claw furthermore prevented the pendent shells and bead from slipping off. Several Indians still bear the marks of this now antiquated pendant.

A different kind, which was still in honour but a few years ago, but is now likewise obsolete, is the haliotis pendant (fig. 157). The specimen from which I have drawn fig. 157 was in actual use when obtained for my collection. Pendants of this material probably affected various forms. Yet I fear that no other specimen could now be found among our

* *Tzokwol.* 2nd. cat.

aborigines. Considering that fine shreds of sinew were formerly, as they are to-day, common in every native household, it would appear, judging by the coarse line of buck skin appended to this "jewel" that very little regard was entertained in olden times for the sensibility of the human ear.

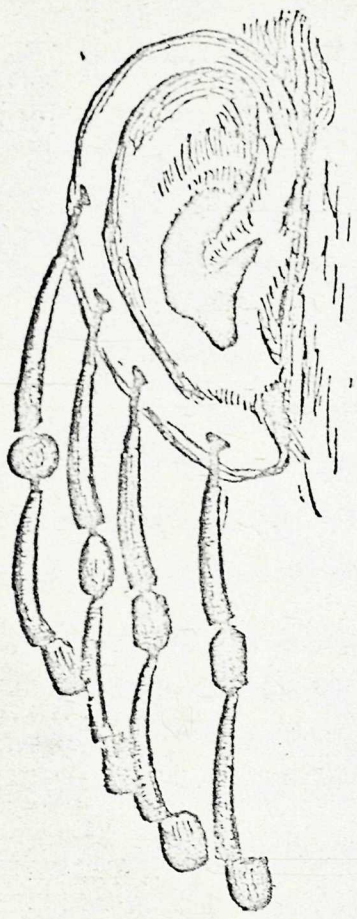

Fig. 156.

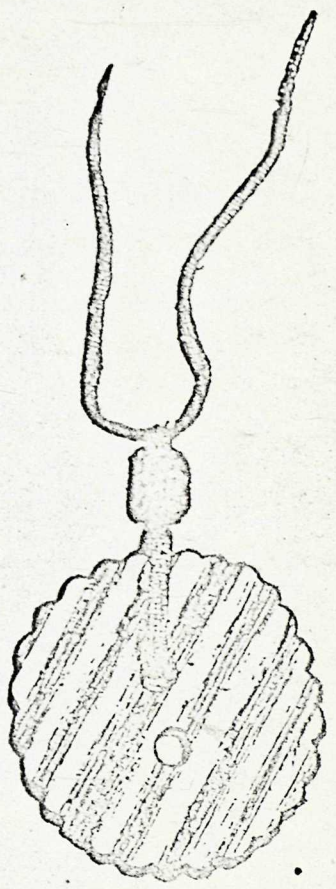

Fig. 157.

The dentalium pendant was proper to men, while the latter or haliotis ornament belonged to the fair sex. With insignificant exceptions, neither the men nor the women now wear any ear pendant or ring, except among the Babines, whose *tɛneza'* or noblemen have adopted the silver ear-ring,* proper to persons of similar rank among their alien neighbours, the Kitiksons.

As among the majority of savage or barbarous peoples, in contra-distinction with civilized nations, the Western Dénés were formerly fond of perforating their septum to introduce therein what they considered wondrous ornaments. These might be divided into three different categories: the crescent, the discoidal or cruciform pendant and the silver ring.†

The two first ornaments are figured above, and were of haliotis shell. The crescent was, of course, inserted to the middle through the hole of

* See Niblack's The Indians of the Northwest Coast, plate vi. fig. 13.

† All the nose-pendants are called *ni-spas*, *ni*, a contraction of *nih*, "nostrils;" *spas*, the root of *nanispas*, "ring-like."

the septum, the cusps hanging down. Others were contracted enough to permit of being worn ring fashion with the cusps grasping the septum as those of the ancient Peruvians.* I have seen Babine women wearing through the septum a silver crescent of identical size with that figured above.

Fig. 158.

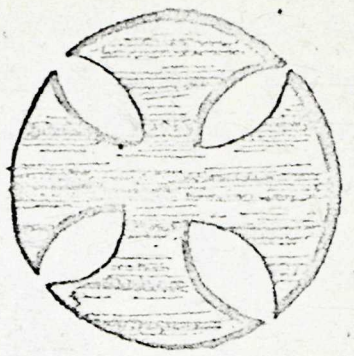

Fig. 159.

The circular nose-pendant (fig. 159) was placed in position by pressing the fore part of the septum through the cusps formed by the deep indentations carved out in the shell until the septum hole was reached. The proximity of the points or cusps then prevented its falling off.

As for the third variety of nose ornaments, it consisted in a silver ring which was more than once of ridiculously generous proportions. Indeed, if I am to credit my informants, this was, among the Babines, of such a size that one could easily eat through it. I have never seen any.

All the above nose ornaments were used indifferently by men or by women. A fourth, which it was the privilege of the women of rank to wear was the *ni-kɔ-dîw'a*, or "passed through the septum." Fig. 160 will

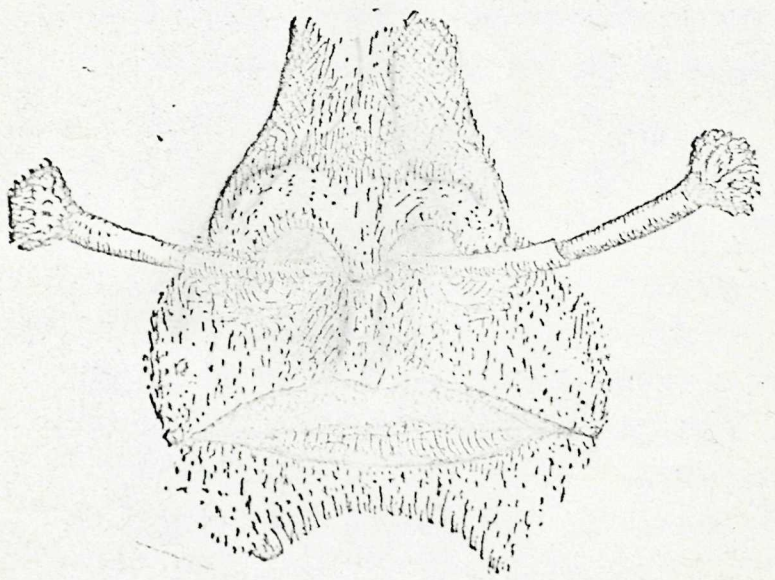

Fig. 160.

explain its form, without doing justice to the material of which it was composed. Two pairs of dentalium shells, the small end of the one

* See "A Study of the Textile Art," by W. H. Holmes, vi. Ann. Rep. Bur. Ethnol., Washington, 1888, p. 237, fig. 343.

inserted in the large end of the other, were kept springing out, as it were, from the septum by means of a sinew thread running from end to end of the shells and through the perforated nasal partition. The extremities of the "ornament" were adorned by a small tuft of the red down of the head of the wood-pecker *(Ceophleus pileatus)*. This ornament was rarely exhibited outside of ceremonial gatherings.

It can already be inferred from the foregoing that the Western Dénés prized as much the dentalium *(D. Indianorum)* shells as their kinsmen who now inhabit the Hupa valley, in California. That the esteem of the former for the red scalp of the wood-pecker is not confined to them may be gathered from a perusal of Prof. O. T. Mason's "The Ray Collection from Hupa Reservation."*

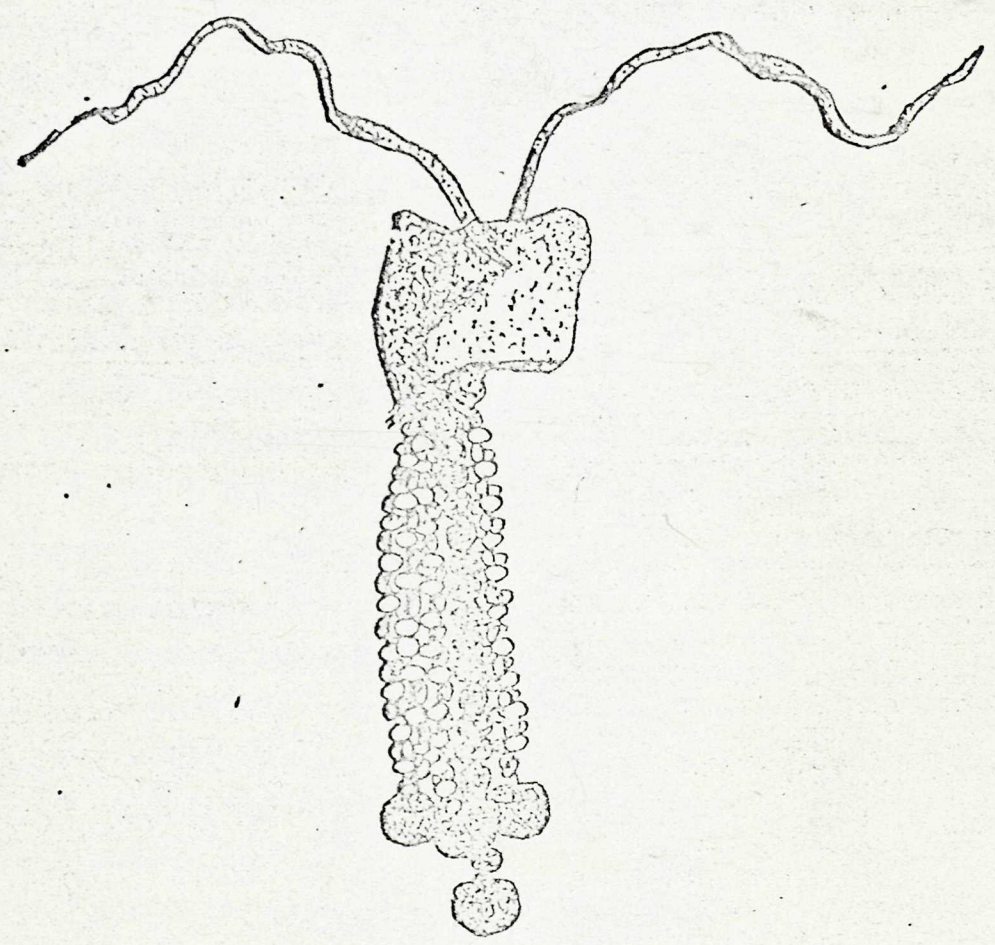

Fig. 161.

Lastly, with a view to enhance their natural attractiveness by means of extrinsical ornaments, the young men and young women attached on either side of their hair, a little above the ears, bunches of strings decorated with dyed porcupine quills and beaver claws† or, more recently, holding glass beads of various colours sometimes ending in copper buttons, as is the case with fig. 161. Until a few years ago, these

* P. 231.

† *Nimpa-stla*, "they lie on the face-edge," a verbal noun.

were to be seen occasionally in a few remote places. As all other articles of native adornment, they have now completely disappeared.

In the course of his paper "On the Masks, Labrets," etc., W. H. Dall gives the following definition of the labret. "The labret, among American aborigines, is well known to be a plug, stud, or variously-shaped button, made from various materials, which is inserted at or about the age of puberty through a hole or holes pierced in the thinner portions of the face about the mouth. Usually after the first operation has been performed, and the original slender pin inserted, the latter is replaced from time to time by a larger one, and the perforation thus mechanically stretched, and in course of time permanently enlarged."* As regards the nature, mode and time of insertion, these words are in every way applicable to the labrets† of the Babine sub-tribe. When these had reached the maximum size which they were to retain for life, they were a flat button, oval in circumference, at least one and a quarter inch long by three-quarters inch wide, of a hard wood, commonly mountain maple *(Acer glabrum)*. The insertion of the tentative bone pin was the occasion of special rejoicing and feasting. The women only were entitled to this piece of ornamentation, and, as a rule, the higher the rank of the wearer the larger the labret was to be.

So much for the head ornaments. Other pieces of aboriginal jewelry of every-day wear were the *tsi-neɬthan*, the *tsi-nezdîlya* and, in later years, the *na-ɬthan* and the *la-tcən*. With the exception of the last, which is a compound noun of the third category, all these words are verbal nouns descriptive of the trinket thereby differentiated.

The two first mentioned were the Déné necklaces. The *tsineɬthan* was obtained by boiling and splitting off a thin band of a cariboo horn, which was given, while still pliable, the desired form. As an attempt at ornamentation, geometrical designs were scratched with the stone knife, over which a pinch of diluted red ochre was rubbed with the hand. The colouring matter passed over the smooth surface of the horn, but remained in the light furrowings which were thus brought into greater prominence. This primitive method is still common among the Western Dénés. Charcoal, instead of vermilion, is sometimes used.

The *tsinezdîlya*,‡ was a necklace of dentalium shells which was liable to affect different forms, as the shells were threaded in such a way as to fall over the neck or to encircle it lengthwise. A similar necklace,

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* Third Ann. Rep. Bureau of Ethnology, 1884, p. 76.

† "*Ni-ta-'kĕz*, man (*i.e.* human)-lip-over."

‡ "That (a composite object) which is put around the head," *i.e.* the neck.

but larger and worn resting over the shoulders and breast, was a badge of the possession of shamanistic powers on the part of the wearer.

The *tsinęthan* was of so primitive material that its adoption as a means of personal adornment must have been rather early. Though the material of the tsinezdilya was an imported article, this necklace could, according to the following Carrier narrative, boast of an at least as great antiquity, unless we assign a recent origin to the actual plumage of the loon.*

"Once upon a time, there was an old man who was blind. He had a wife who used to help him in this way to keep alive: whenever she sighted game, she would hand him his arrow to moisten the stone point thereof with his saliva—for this old man was possessed of magic powers. Then pointing the arrow in the direction of the game, she would let him release it himself, which he usually did with good effect. One day, both came upon a very fat cariboo—"Moisten the arrow-head with your saliva," said the woman to her husband, which after he had done, he shot dead the animal. But his wife, who coveted the fat of the cariboo and was tired of living with a blind old man, pushed him aside, thereby throwing him to the ground, saying: "That old fellow,† what a bad shot he is!" —'But I think I have killed it,' insisted the old man. Yet as he was blind, he could not get the game, and while searching for it, he strayed a long distance from his wife who now abandoned him.

"As soon as the old man was out of sight, she set to cut up the animal, helping herself at the same time to large fried slices of its meat. What she did not eat on the spot she cut into thin pieces and hung out to dry.

"Meanwhile the old man was bewailing his fate. In the course of his aimless wanderings he had reached the shore of a lake, when a loon hearing his cries swam towards him as his kins are wont to do even now whenever they hear anybody talking in the forest.—"What ails you"? he said to the man.—'Poor wretch that I am, my wife has left me, and I am blind,' answered the latter.—'I will cure you,' said the loon; 'come over to me and hide your eyes in the down of the back of my neck. The old man did as he was bid, and both the loon and himself plunged in the water. When they reappeared on the surface, they found themselves at the opposite end of the lake.—'Now can you see'? quivered the loon. 'Look at yonder mountain,' he added. The old man complied with the request and answered: 'I see a little, as if through a mist. Repeat the

* This tale is also current among the TsiqKoh'tin.

† *Tsnèthi-'qel.* The desinence of this word is expressive of spite and scorn.

operation.' Again did the loon dive with him, emerging this time at the original point of departure. 'Now can you see'? asked the loon.—'I now see very well,' replied the old man wading ashore. Then to show his gratitude to his benefactor he presented him with his own dentalium shell necklace, and taking some more dentalium shells from his quiver, he threw them * at him.

"Ever since, the loon wears a white necklace, and the shells which hit him also produced the white spots we now see on his wings.†"

Now that we are satisfied as to the great antiquity of the dentalium necklace, we will leave the old man of the story to settle with his unfaithful spouse, and return to the description of the other articles of adornment obtaining among the Western Dénés.

The *na-ɣthan*‡ is the horn or metal wristlet which has already been described and figured (see fig. 126).

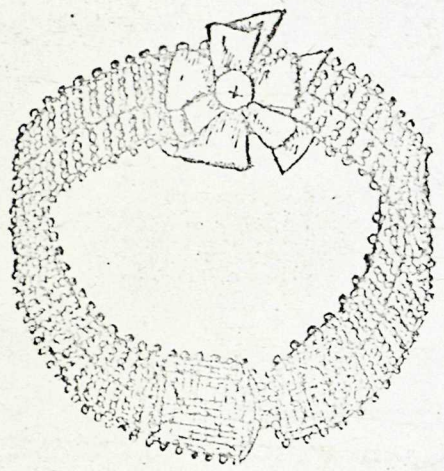

Fig. 162.

As for the *la-tcon*‖ it is of modern origin, and is an imitation of the ruffles of the whites. As such, it is worn in winter time as a protection against cold. But many Carrier or Tsé'kéhne girls nowadays wear a variety of it merely as an ornamental addition to their costume. To that class belongs the *la-tcon* herewith figured. It is of glass beads of several colours mounted on sinew threads. The rosette in front is made of narrow ribbons and a common mother-of-pearl button.

CEREMONIAL COSTUME.

It has already been hinted that the ceremonial costume of the Carriers, was very elaborate. When one keeps in mind their proximity to the coast Indians who are so fond of parade and display, this statement cannot surprise. What would rather astonish those who have read a former paper by the writer wherein the wonderful faculty of imitation characteristic of the Carriers is chiefly brought into relief is the fact that though the sociological peculiarities which gave rise to this costume were evidently borrowed, yet the latter was, in the main, original. It was proper to the *tɑneza'* and the *t'sèkhuza'* or noble men and women.

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* "Threw them" and "presented them" are rendered by the same word in Déné.

† The loon of this story is the *Urinator pacificus* of the naturalists.

‡ "That (being of a naturally long material) which is around."

‖ Lit. "hands-stick," same word as that for "wrist."

Ceremonial banquetting, distribution of clothes or victuals, dances, incineration of the dead, etc., were the most common pretexts for its exhibition.

It will be noticed that the nature of its adorning material was rather monotonous and little varied. This consisted principally in the dentalium shells * interspersed with beaver claws and cariboo hoofs, pelts of small animals, the feathers and down of a few species of birds and porcupine quills.

The latter were invariably dyed, and here it may be explained that the Carriers, at least, knew but two varieties of dyes: yellow and green. The yellow colour was obtained by boiling the quills with a species of hair-like lichen apparently akin to the *Alectoria jubata*, but botanically different (*Evernia vulpina*). The green dye was no other than the decayed wood found almost everywhere in the forest. The colouring matter was likewise extracted by boiling. An analogous method is now followed, to dye in red or blue the plumes with which the young men are fond of ornamenting their hats and the horse hair which serves to embellish the instep piece of their mocassins: the original dye of the cloth or stuff procured at the trading posts is simply extracted and transferred by boiling.

The distinctive pieces of the noble man or woman's ceremonial attire were: the wig, the coronet or *'tast'ɲ*, the breast-plate or *yostəthe*ɲ, and the *Ras*. With the exception of the third, of which I know but one specimen, none of them can now be seen outside of my collection. Each one was formerly so prized that it was the appanage of the full fledged təneza· only. All the other parts of the costume, such as the leggings and the mocassins, were of course proportionately rich and ornamented.

I possess two specimens of the ceremonial wig or *tsi-'kə-stsai* † and both differ in make and style of ornamentation. Fig. 163 represents what is perhaps the most elaborate in design. As no cut can do full justice to its details, I may be pardoned the following description. It is composed of three distinct parts: the horn-like appendage, the cap or head covering proper and the pendent train. The horns are made of the stout bristles of the sea-lion's whiskers, two lengths of which are used and united in front by means of buckskin and sinew threads. A rough network of the latter material fills up the space between the horn and the cap, and is arranged so as to determine the concavity of the latter.

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* *'Ɣai* in Carrier, *tɂɂai* in TsilKoh'tin.

† Lit. "head-on (minute objects—*i.e.* the shells) are-lying."

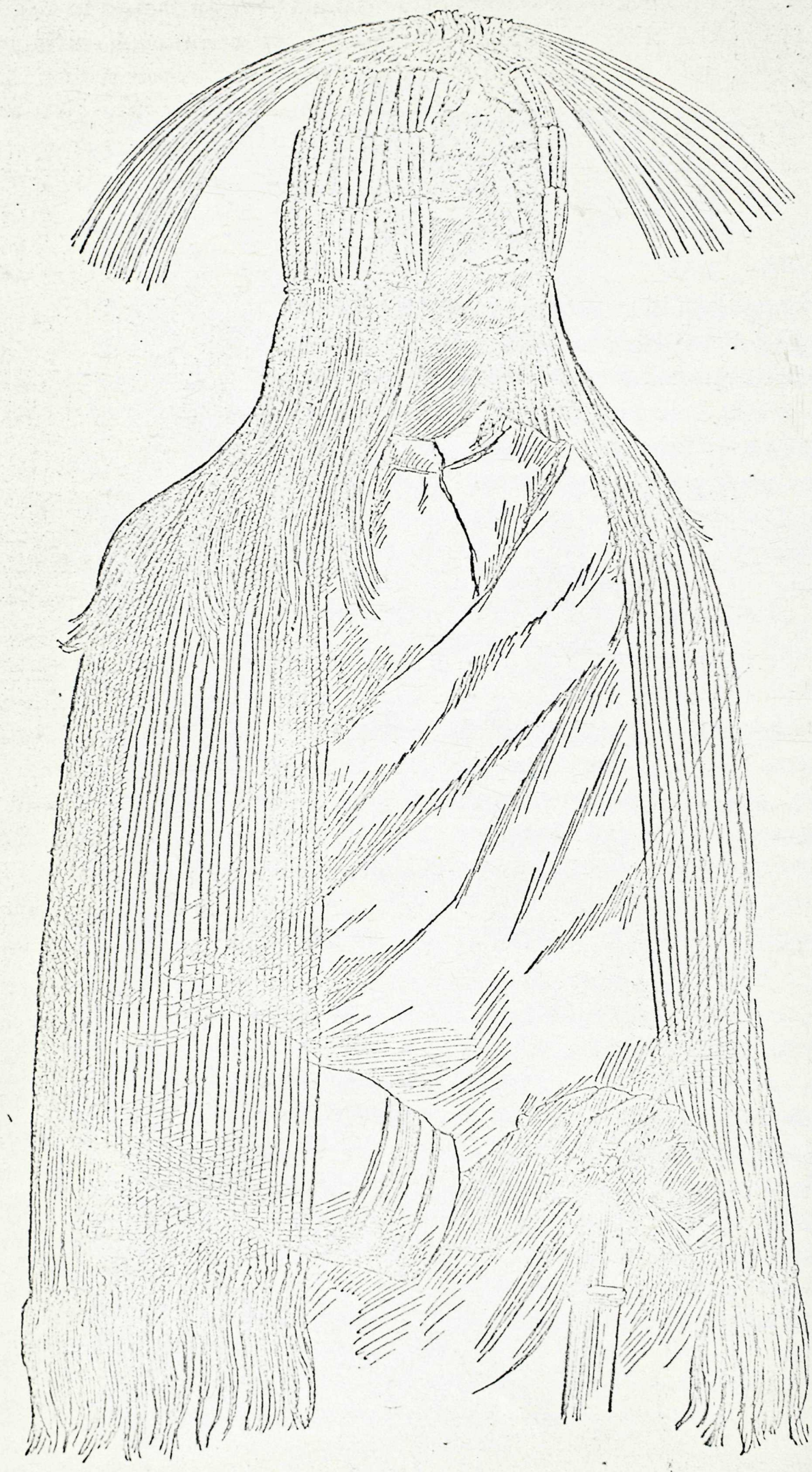

Fig. 163.

The cap is formed of two rows of dentalium shells attached to a strip of cariboo skin otherwise secured to the above mentioned netting. A narrow band of leather separates the two rows and serves to retain in juxtaposition the shells whose threads are also passed through it at the proper intervals. The train is of human hair and measures three feet in length. Each strand is formed of about a dozen hairs twisted into a two-ply cord. About one foot from the bottom, bunches of perhaps fifty hairs in their natural condition are added to the end of each strand by means of finely shredded sinew. Moreover, on the outside of the upper part of the train, and forming continuation with the two rows of dentalia of the cap are bunches of four shells of the same description from the united small ends of which hang flaps of artificially curled human hair which add not a little to the general effect of the whole. Altogether, this wig must have produced a striking effect.

The second (fig. 164) is of less complicated design, but of perhaps more costly material. The front horn-like appendage is replaced by fine strips of ermine skin, and the head-covering part is likewise of dentalium shells, of which there are three rows. These are gathered in bunches of three, which are tied at the small end over heavy three-ply cords of human hair terminating on the outside in flaps of curled hair, as in the previous case. The train is composed of fine three-ply strands of human hair adorned, every three inches or so, with two dentalium shells in successive order. To retain these at the proper intervals, little pieces of wood are inserted between the shell and the strand, or the latter is wrapped over with sinew thread. This train is not so abundant in strands, nor quite so long as that of the preceding wig.

These wigs were used in festal dances during which they were decked with swan's down which, owing to the movements of the dancer, produced white undulating clouds intended to add to the picturesqueness of the scene.

They were held in such high estimation, that no consideration whatever could have induced their owner to part with them. The reason of this will be readily understood when it is known that they formed an integral part of the hereditary title of the nobleman. This is so true that they shared with him the traditional name which they were intended to honour. Thus wig, fig. 163, is called K*ahul* after its last possessor, who had himself inherited this name from a long line of ancestors. Therefore parting with them was equivalent to forfeiting one's rank and title. They were handed down from generation to generation, and this explains the air of antiquity and quasi dilapidated condition of those in my possession.

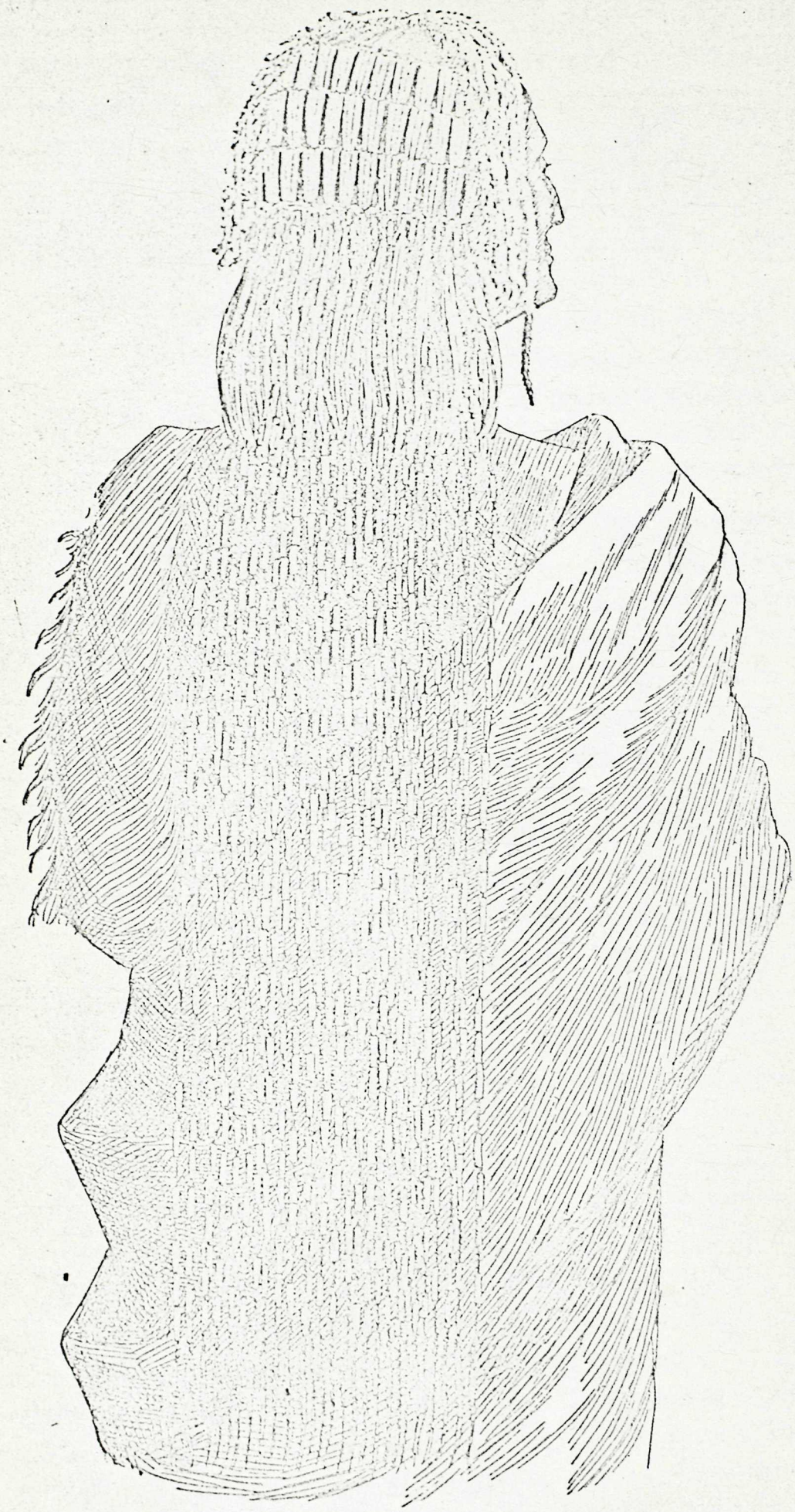

Fig. 164.

The staple material was the hair of notable women. It was clipped after death only, and arranged into the desired style on the occasion of the grand final banquet commemorative of their death and cremation. The hair of two women was required to make one wig.

Even women could aspire to the rank of noble or *t'sĕkhèza'*, among the Carriers. On the occasion of ceremonial dances they wore a head-dress even more graceful and pretty in form, if not so imposing and weird in material. This was called *'tast'ju* or "woven-feathers." It was crown-shaped, and its principal component parts were stiff laps of fur skin, generally of the weasel, and feathers. The specimen herewith figured may be described as follows :—A strip of tanned skin about one inch in width and overlaid with three rows of dentalia serves as the foundation or head band of the crown. From this rise bread weasel skin strips with edges folded lengthwise and sewed up inside. These are stiffened by means of large feather quills or slender pieces of wood inserted therein. To further enhance the gracefulness of the head-dress, each skin is kept folded down at the top, thereby converting its tail into a flap. The skin laps are again retained in their upright position by a strip of dressed skin running, on the inside, around the upper periphery of the crown. Scalps of the red-headed woodpecker (*Ceophleus pileatus*) are secured on the folded part of each lap, while the tail feathers of another variety of woodpecker (*Sphyrapicus varius*) are sewn, pointing upwards, on the bottom and the middle of each upright piece of fur skin.

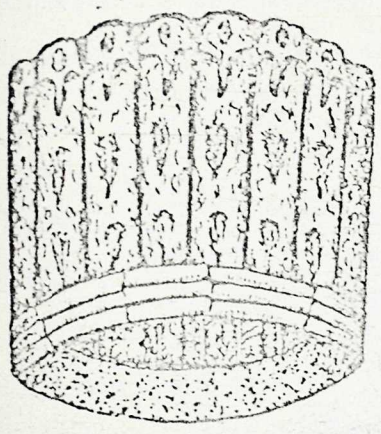

Fig. 165.

This head-dress was filled up, when in use, with down, which the wearer caused to escape around through the jerking of the head peculiar to the feminine style of dancing.

Fig. 166.

The above had been written and fig. 165 drawn for some time when I received specimen pages of a most important Bible Dictionary* now in course of publication in France under the supervision of that learned orientalist, the Abbé Vigouroux, wherein I found the sketch of a Chaldæan king

* *Dictionnaire de la Bible, etc., par F. Vigouroux*, Letouzey et Anè, Paris.

(fig. 166) wearing a headdress so much resembling the 'tast'ɻu that I could not resist the temptation of reproducing it here with the author's permission. This illustration being copied from a contemporaneous monument, offers a very suggestive base of comparison with the ceremonial paraphernalia of our aborigines. Though the crown therein represented must have been of some precious metal, it would seem that the feathers or *'ta* which have given its name to its American counterpart occupy an even more prominent place therein than in the Déné 'tast'ɻu.

The next important piece of the nobleman's ceremonial costume was the *yo-stəthaɁ** or dentalium breast-plate (fig. 167). It had the form of a

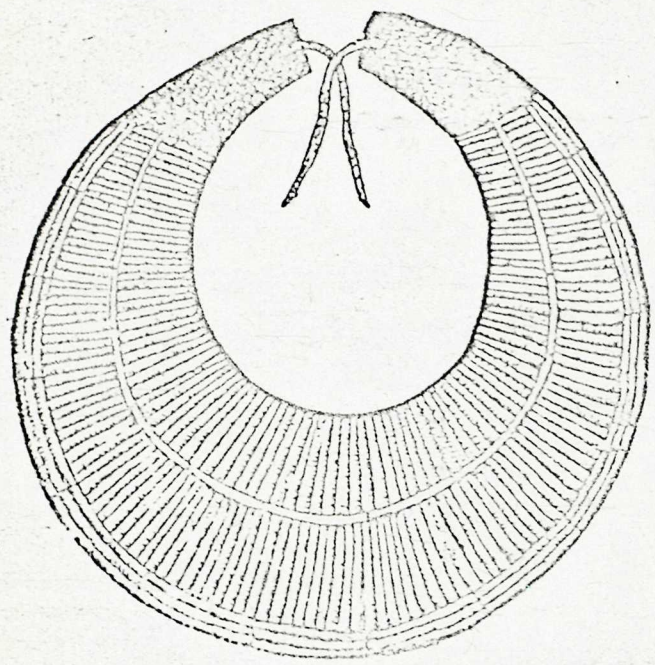

Fig. 167. ⅓ size.

rounded crescent, and this particularity, no less than the costliness of the material, was no doubt intended to indicate the dignity of the wearer. The fitness of the dentalium as a means of ornamentation receives through this breast-plate its best illustration. These shells, as is well known, are larger at one end than at the other, and moreover are also slightly arched. The former peculiarity causes of itself the curve of the two broader rows of dentalia, while the latter likewise renders those of the middle and of the rim well adapted to the shape of the plate. The whole is of course mounted on a ground of dressed cariboo skin. Its two cusp-like extremities were clasped or knotted with rawhide strings behind the neck.

This article of personal adornment was valued at four dressed moose skins or forty beaver skins, which, if estimated at their present price, would represent the sum of $200.

* "Disposed downwards and in parallel order," a verb. noun.

Such was also the commercial valuation of the Raz. This is the ceremonial robe which I have elsewhere compared to the *mehil* of the Jewish high priest. It was originally of tanned cariboo skin, but the specimen in my possession (fig. 168) is of an old-fashioned printed stuff. Yet the fact of its main fringe being ornamented with porcupine quills and here and there with hoofs of yearling cariboo is evidence of respectable antiquity, considering the progressive tendency of the race to which belonged its maker. Exclusive of the lower fringe it measures 2 feet 2½ inches in length, and in its narrowest breadth it is 3 feet 4½ inches. The upper fringe is of red yarn, while that at the edge of the garment

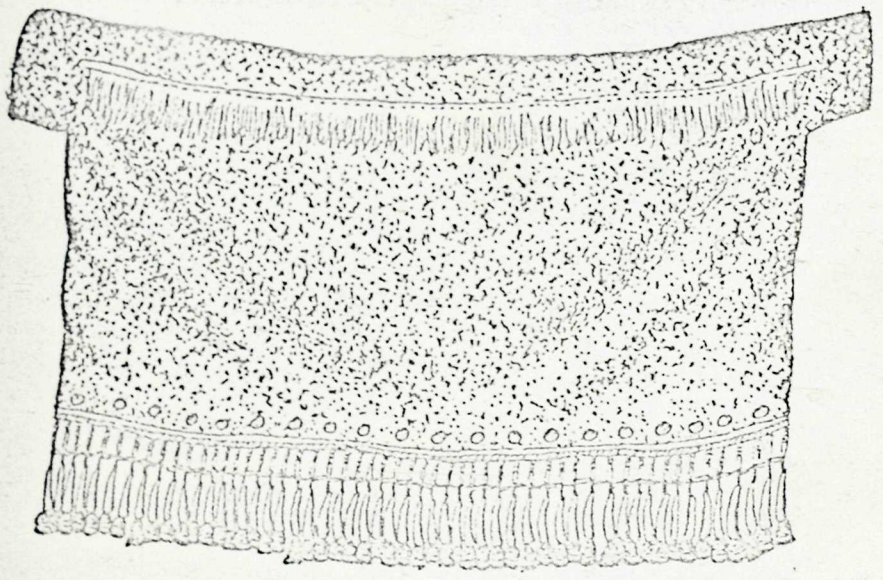

Fig. 168.

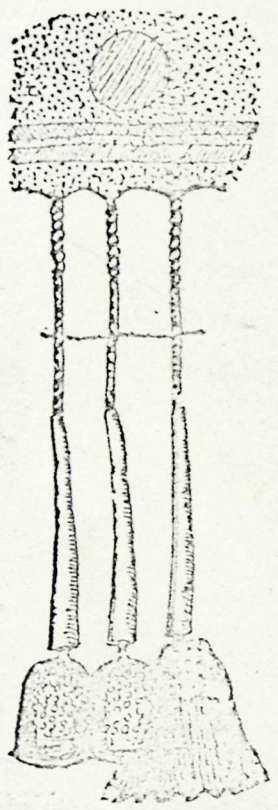

Fig. 169.

(fig. 169) is composed as follows:—Firstly, small rounds of red cloth sewn on the printed calico, then two fillets respectively blue and red running along the edge. A narrow strip of tanned skin is then sewed on, from which hangs the fringe proper. The upper part of the strands is wrapped with yellow or green porcupine quills, below which they are left naked until they are connected together at hanging intervals by a slender cord of sinew thread. After an equal length left uncovered, each strand is passed through a dentalium shell, ending in a sewing thimble or a cariboo hoof scalloped at the edge.

The lapels or side extensions at the top of the Raz are intended to button or attach it behind with strings; for though the garment resembled a robe while in actual use, it was put on and worn as an apron from the waist down. Needless to add that the metallic ornaments of

the lower fringe were well calculated to impress the bystanders by the jingling sound they yielded with the importance of the dancer.

The noblewomen wore no RAZ, but substituted therefor the cincture-like piece of apparel shown in fig. 170. Though it resembles a girdle, it was considered a breech-cloth. Of course, being merely ornamental, it was worn over the dress. It will be seen that it was almost entirely of dentalium shells without any leather lining.

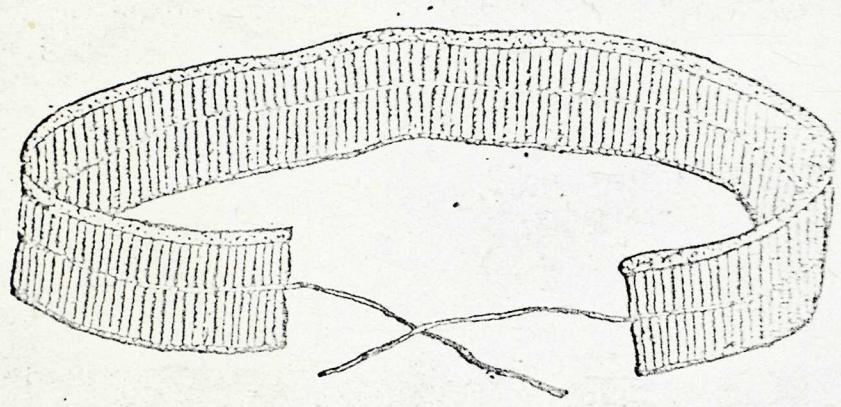

Fig. 170. ¼ size.

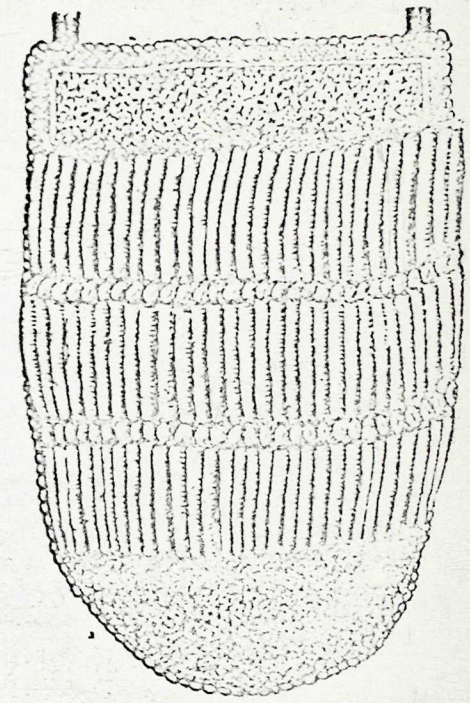

Fig. 171.

As a complement to his costume, the təneza· had his ceremonial *Kwənsəs* or fire-bag and ornamented quiver. I have never seen any specimen of the latter; but from what we know of the other pieces of festal attire, we may well imagine it glowing as the rest with the ubiquitous dentalium shells and fringes. The fire-bag shown above (fig. 171) is mainly of cariboo skin with glass beads stitched on the edges and red and blue trimmings. It belonged to the original possessor of the RAZ already described and is therefore contemporaneous therewith. This old man died five or six years ago at the age of 105 years or thereabouts.

The mocassins and leggings were also similarly ornamented on festival occasions. Truly, the Carrier "nobleman," standing in the midst of an admiring assemblage, crowned with the weird head-dress of his ancestors, resplendent in the glory of his moon-like breast-plate, clothed in the folds of his sonorously fringed robe, with his shining fire-bag hanging on the left and his jewelled quiver on the right, and bedecked from head to foot with snow white shells, must have been a sight worth beholding.

This is perhaps the proper place to mention another variety of head-dress which, though ceremonial in intent, was not the appanage of titled

personages. I mean the *shyas-'kei* (grizzly-bear-claws). Its name denotes the nature of its material. These claws are secured to a band of cariboo skin by means of sinew threads passed in a hole bored through their root part. A double row of dentalium shells two lengths between each claw, runs through their upper or slender half, ensuring by means of the sinew thread on which they are mounted solidity for the crown and unity for its component parts.

Fig. 172.

The grizzly bear is the lion of our mountains, and those who presume to wear its spoils thereby lay claim either to supernatural power or to uncommon courage. Such are the medicine men or shamans and a few untitled hunters too proud of their deeds and supposed prowess not to parade them on every available occasion. Such then were the natural possessors of this curious head-dress. I must add that the shamans did not confine their extravagance to the wearing of this crown; the spoils, generally the head, of any other wild beast, the wolf, the coyote (*canis latrans*) the black bear, etc., were also laid under contribution to help to impress the bystanders with the awfulness of the powers they were supposed to be endowed with. But this was only while in the act of practising their occult art.

One peculiarity of the preceding cut cannot fail to strike the reader. It is the mode of wearing the hair therein illustrated. This style was common among the Carriers. When at home, or anywhere when in repose, they had it plaited in a queue resting on the back; but when travelling they found it more convenient to tie it up in a knot behind the neck. Both men and women—except when widowed or in mourning

from some other cause—wore it full length and parted in the middle. Clipping the hair was a token of extreme grief or the badge of forced servitude.

Small tattoo marks will also be observed in the above figure, and not without reason. For tattooing was formerly very prevalent among the Western Dénés. This was not, as among the neighbouring heterogeneous tribes, confined to the chest or the arms and legs, but it extended in every case to the face as well. Various designs were thus indelibly stamped; but the face tattooing consisted more generally of lines, single or parallel, radiating from the mouth corners, on the chin, the cheeks, the forehead and occasionally, the temples. Fig. 173 represents an extreme case. Two women of this place—Stuart's Lake—are thus tattooed. Face tattooing had nothing to do with the totem crest, personal or gentile, of the bearer.

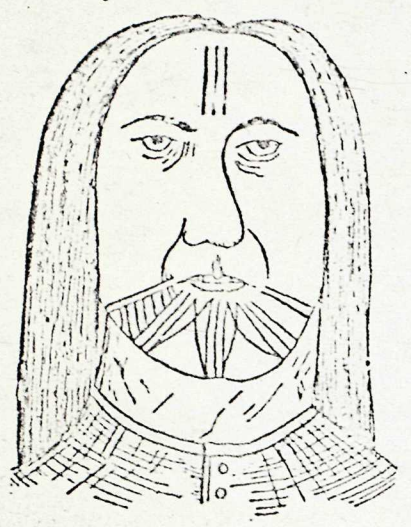

Fig. 173.

When figures were attempted, they consisted of crosses, fishes, birds, fern root diggers, etc., in conventional outlines, all of which will be delineated when I come to treat of the Déné pictography.

The breast was also tattooed, but not so commonly as among the Coast tribes. The figures marked thereon had generally a totemic significance. A much coveted tattoo was the symbol of the grizzly bear (fig. 195) the marking of which cost many a ceremonial banquet and entitled the person thus honoured to exceptional regard.

The forearms, inwardly and outwardly, were more often the seat of tattoo marks. When there situated, these referred as a rule to a personal totemic animal revealed in dream, and the bearing of whose symbol was supposed to create a reciprocal sympathy and a sort of kinship between the totem and the tattooed individual. Sometimes these marks on the arms and legs were intended as a specific against premature weakness of these limbs. In this case, they simply consisted of one or two transversal lines on the forearms or immediately above the ankles which were tattooed on the young man by a pubescent girl. These had about the same significance as the sinew and down wristlets of which mention has already been made.

Tattooing was performed, as among other American tribes, by puncturing the skin with fine bone (or later steel) needles, and by passing underneath a sinew thread coated with crushed charcoal or soot.

The face was also either painted with broad lines of red ochre alternating with black, or the cheeks only were made to receive a coating of rouge. Personal taste and fancy were the only rules followed. Young persons were also fond of trimming their eye-brows to a diminutive width, after which they blackened them with charcoal.

CHAPTER XI.

HABITATIONS.

It has already been stated that of the three tribes under consideration two, the Carrier and the TsiqKoh'tin, were semi-sedentary, while the other, the Tsé'kéhne, was entirely nomadic. Consequent upon this different social status was, of course, the nature and style of the habitations proper to each. Thus the Carriers, whose social system was very elaborate and whose staple food was salmon, had formerly no less than five distinct kinds of dwellings, the ceremonial lodge, the summer lodge, the fishing lodge, the winter lodge, and, among the southern half of the tribe, the subterranean hut.

In common with the coast tribes whose social organization they had largely copied, the Carriers had formerly, as well as now, regular villages which they inhabited but part of the year. But while the former chose the winter months to enjoy the sweets of home life, the latter were never to be seen in their permanent dwellings except during the fair season. This may easily be accounted for when we remember the differences of climate. The coast owes to its proximity to the ocean the comparatively mild, if damp, weather it constantly enjoys, while east of the coast range of mountains, the winters are usually very severe. Now, as among the inland tribes, nobody, however wealthy, sleeps in more than one blanket, a large fire is kept in the lodge day and night, and so the amount of dry wood available in one place is soon exhausted. Since they are possessed of carrying conveniences unknown in olden times, this necessity of shifting one's abode from place to place is not so much felt. But formerly with their limited facilities for felling trees and bringing the wood home, they had to change every year their winter quarters.

The permanent village was thus inhabited only during the fair season, that is from the first week in May, when the grebes arrive, until the second week of September, after the family supply of salmon has been secured. The villages are generally situated at the confluence of rivers, or on the northern banks of lakes, so as to have the benefit of the sun's rays from the opposite side. In any case, the location is chosen in such spots as seem to promise the greatest fishing facilities. They were formerly composed of the ceremonial and the common summer lodges. As these differ in plan and material from those illustrated or described by writers on the coast Indians, I feel justified in giving herewith plans and explicative details of both.

And first as to the ceremonial lodge (fig. 174). It is so called from its being the seat of all large native gatherings, such as festival banquets, distributions, dances, etc. It serves at the same time as the dwelling

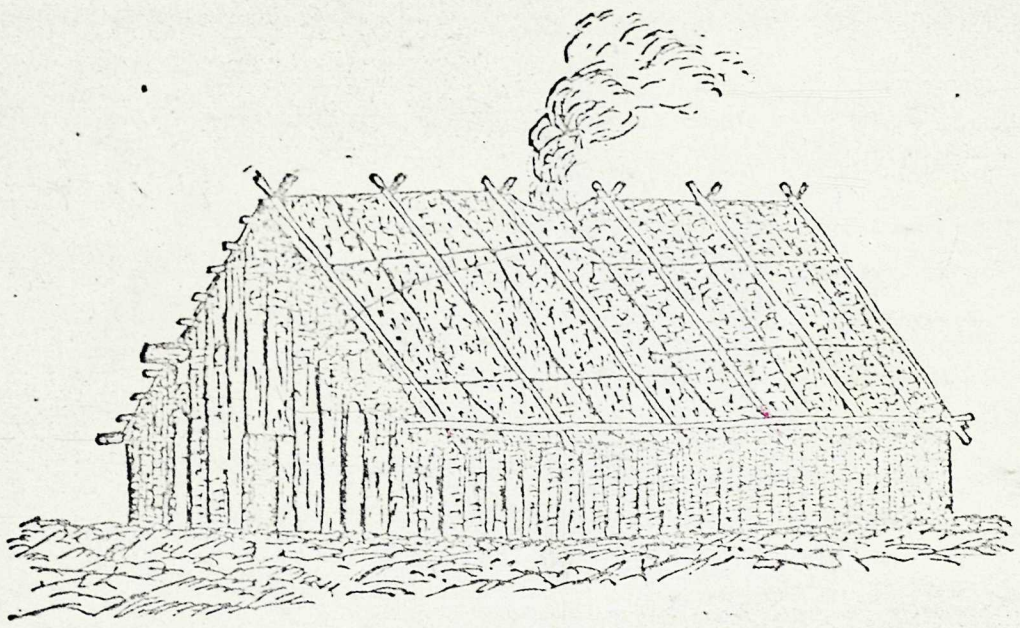

Fig. 174.

house of the nobleman to whom it belongs and of such co-gentile families as it can contain. Its erection was the occasion of great festivities and necessitated the accumulation by the future proprietor of

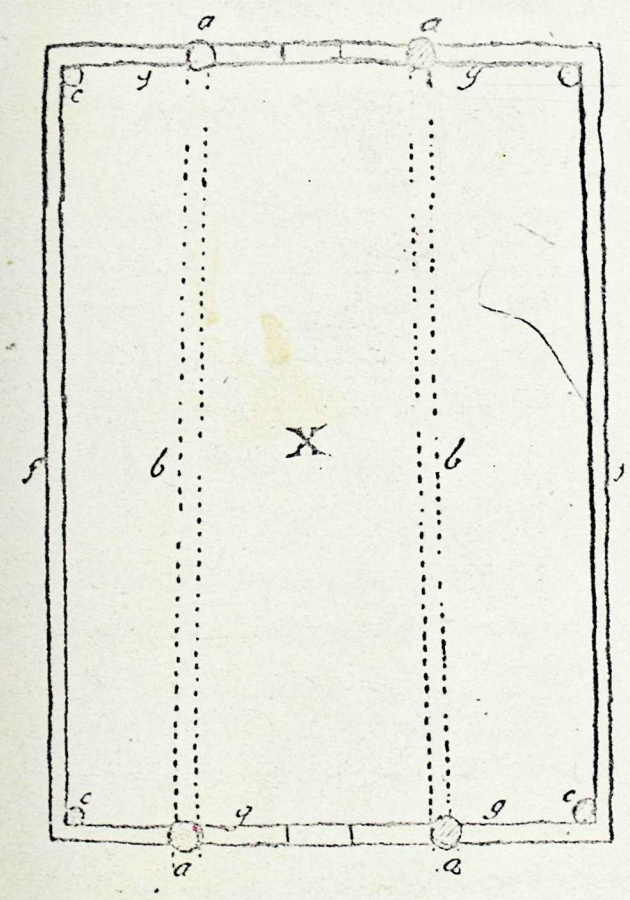

Fig. 175.

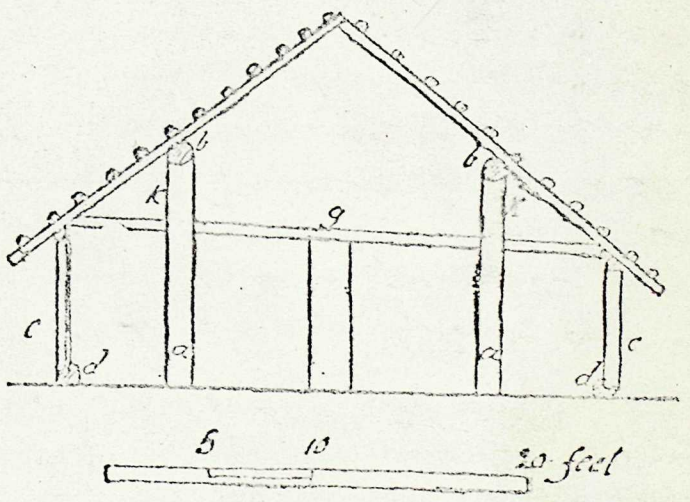

Fig. 176.

large quantities of eatables and dressed skins. Following step by step the progress of its building, which was diversified, as on the coast, by intervals of merry-making and feasting, we will proceed to a brief

description of the lodge, the ground plan and front end of which will be found in figs. 175 and 176.

The main timbers of the building consist of the posts *a* and the beams *b*, placed so as to form a parallelogram. The former are of spruce of as large dimensions as can be found. After they have been cut to the required length, they are hauled on skids to the place of construction. Let me say here that as these posts—four in number—are the mainstay of the house, they are regarded by the natives with feelings akin to reverence which are furthermore excused by the circumstance of the totem animal of the proprietor being generally carved in relief not far from their upper end *k*. For this reason, the place of honour is at their base and, in ceremonial gatherings, the noblemen were invariably seated against them, surrounded by their co-gentile suite.

After the logs had been stripped of their bark, they were rendered as smooth-surfaced as possible by means of repeated scrapings. When standing in position, their longitudinal half was made to jut out of the plank wall. Not uncommonly, they were also painted with red ochre, when a mash of carp roe served as oil and was smeared over the posts so as to prepare a sticking surface for the colouring matter. As a precaution against too early decay, the butt end of each was wrapped around with birch bark prior to its being covered up with earth.

The head of these four posts or pillars is hollowed to receive two large cylindrical beams or plates, *b*, which are cut a little longer than the length of the future lodge, so as to let their ends project in front. Four secondary posts of smaller size, *c*, are next erected on the outside of the parallelogram at equal distance from the first and form the corners of the house. They likewise support on hollowed ends two smaller plates, *f*, over which the eaves of the roof are to rest. The ends of two transversal beams of moderate dimensions, *g*, the object of which is to further solidify the structure and especially the gable walls, are then laid in a notch cut out on these minor plates. The foregoing pieces constitute the frame of the building.

Once they are in place, the erection of the roof is proceeded with As this is even to-day constructed on the same principle as formerly, it deserves special mention. The rafters, *h*, are secured together at the top of the roof by means of *'kɔn* or wattle of high cranberry bush (*Viburnum pauciflorum*) passed through holes pierced in the proper places. Over these are tied with willow bark, at intervals of one or two feet purlines which are then covered with spruce bark. This is secured in place principally by means of additional rafters laid over it and pressed down

by a long beam to which their lower extremities are attached (see fig. 174). As a further guarantee of solidity, slender poles are finally inserted between the bark roofing and the outside rafters. Of course an aperture is left open in the top of the roof for the smoke to escape.

There now remain the walls to construct. They consist of hewn slabs of spruce which were formerly shaved on the outside as smooth as the working tools then available permitted. The lower end of these rude planks was introduced in a channelling prepared therefor in the large beams, *d*, lying on the ground, while their upper end was engaged between additional poles running under the eaves or along each side of the gable.

Large lodges had generally two entrances, one at each gable end of the building. Their lintel was formed by the transversal, beams, *f*, and they were shut by regular board doors as is practised to-day. However, I have seen a ceremonial lodge whose doorways were simply cut in the end walls some distance above the ground, and were elliptical, as marked in outline in fig. 176. Such lodges were called *horwə-ltaz-yə*R, or "house with cuts through."

There never were any windows in the old style lodges. Full ventilation was however established through the doors, the smoke hole and the numerous wall chinks consequent on the sinking in of the boards.

The fire-place was in the centre of the building, and fire was made immediately on the floorless ground. Only two or three stones served as andirons for the wood to lie upon. The family meat or fish was, and is still, commonly either roasted by means of a wooden spit passed therein and stuck in the ground near the fire, or boiled in a kettle supported over the flames through a long stick likewise driven in the ground at a distance from the fire.

No shutter was used in connection with the smoke-hole as is done among the Haida, nor was the floor covered with any boards.

The sleeping places only were strewn with spruce branches and undressed skins, over which everyone stretched himself in his blanket with most of his clothes on. All had their feet next to the fireplace, instead of each married person having them at the head of his or her partner, as is common among the Blackfeet,* and the Eskimo.†

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* Legal, *Les Indiens dans les plaines de l' Amèrique du Nord, Petites Annales O.M.I.*, Paris, 1891.

† After Rod. MacFarlane, Esq., who has passed several years among those aborigines.

There was in the lodge no partition whatever.

Sometimes related families found themselves too numerous to dwell all under one roof. Rather than cohabit with people of a different gens, they would then build for themselves the smaller summer lodge (fig. 177). Quite a number of these old fashioned buildings are still extant. They differ considerably from the large ceremonial lodge: instead of four *îuyəs-tcən* or principal upright posts, they have only two, one in the middle of each gable end. To facilitate the semi-circular hollowing of their upper

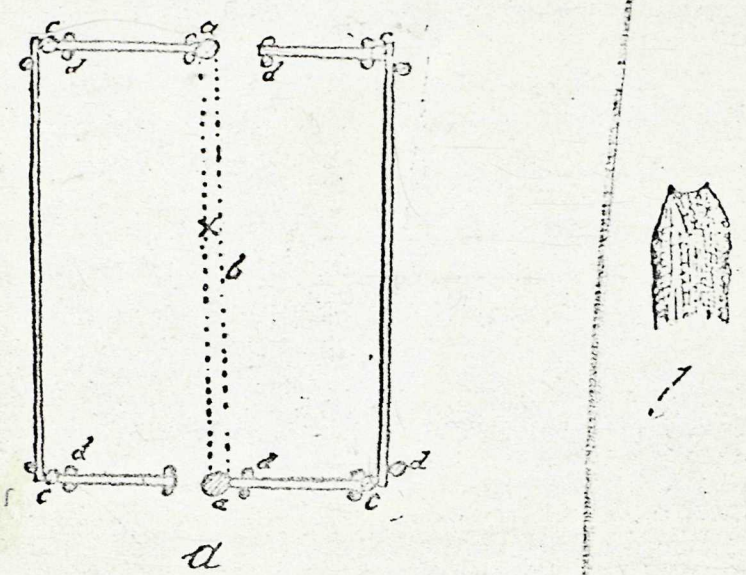

Fig. 177.

ends, these are previously thinned on each opposite side into a tapering edge (fig. 177 *b*). Four *îuyəs-səl* or secondary uprights, *c*, stand in the corners of the lodge. As the walls are to be superimposed poles, minor posts or stakes, *d*, are planted in the ground in pairs on each side of the wall whenever this is necessary to prevent the latter from tumbling down. After the posts of the walls have been inserted between the two opposite posts they are furthermore secured thereto, three or four together, by means of willow bark ropes. Such unimportant habitations have indifferently one or two entrances, generally without any door. Their apex is formed as in the preceding case by the transversal piece, *e*, which rests on each end of the eaves-plate. When two doorways exist, one will be on the right, the other on the left, of the main upright post in the middle.

The roof is in every respect similar to that of the ceremonial lodge. Speaking of the latter, I failed to mention that the eaves project a considerable distance from the walls.

A few ceremonial lodges were also built on the same plan as the minor dwelling houses. Their material was identical, save that instead of poles hewn planks formed the walls. In that case the totem crest was carved out of the protruding end of the top plate (fig. 188). A few even had

only one door. The place of honour was then just opposite the door, as among the Blackfeet.*

Another variety of Carrier dwelling which is inhabited only during *thal-lo-ñron*, or the salmon season, is the fishing lodge. In general appearance it resembles the summer dwelling lodge just described, but is, if possible, more rudely constructed. Its ground plan is identical, but it wants the gable end walls above the transversal beams. The large openings consequent thereupon leave free access to the wind and air and thus accelerate the drying of the fish which are suspended on cross poles resting transversely on the top sticks of the side walls. By exception, a few of these lodges have the apex of their front adorned with the carved totem crest of the proprietor. It may be remarked that these fishing lodges are not mere sheds for the exclusive destination of smoking and curing fish; they serve also as dwellings for the fishermen during the whole space of time that they are used.

We now come to the winter lodge of the Carriers. We have already seen that, at least among the upper Carriers, new winter quarters were chosen every year in such spots of the forest as promised to yield the best supply of firewood. These habitations were therefore of a merely temporary nature. Yet they were carefully built, the greatest attention being always paid to the comforts of those about to winter therein. They were original in construction, and deserve a full description.

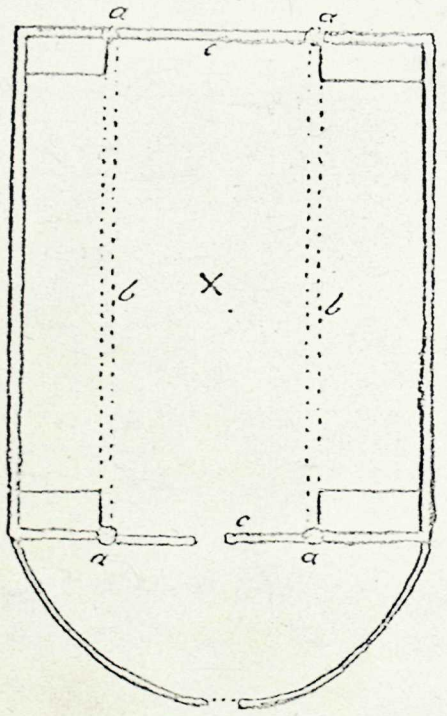

Fig. 178.

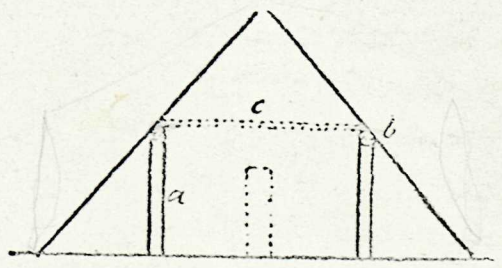

Fig. 179.

Four *înyastcan* or posts of moderate size with hollowed upper ends were planted in the ground and supported the usual longitudinal plates.

* Legal, *uti suprà*.

On these parallel plates split poles of spruce or cotton wood were made to recline in a slanting position so as to form a roof without walls, the split side resting immediately on the beams. To ensure additional solidity, the lower end of each stick was slightly driven in the ground, or covered up with earth. The middle ones were purposely shorter, so as to form a smoke hole in the top. A covering of spruce bark was then added, each piece of which was steadied by means of independent sticks resting thereon.

There now remained the gable ends. As with the other styles of native buildings, a *thapa-sə'a* or transversal beam (*c* of fig. 179) was laid on the side plate, *b*. Slender posts or stakes were next planted on the same plan in an upright position to fill in the end of the lodge opposite to the front. Fascines of spruce boughs or saplings were moreover laid against this wall on the outside, and all possible interstices were carefully chinked up by forcing in shoots of conifers.

The front end was more complicated. As comfort and warmth were the chief aims of the builders, the structure had but one entrance. This was obtained by introducing immediately under the apex of the gable down to the transversal plate a broad slab of spruce securely wedged between the wall posts or stakes driven in the ground. The aperture left free underneath constituted the doorway. This was shut by an independent board just a shade narrower, so as to move easily. It was suspended by means of a stout rope, and to go in or come out you need only push it ahead of you; its own weight would cause it to return to its original perpendicular position, and thus only a minimum of cold air would steal in the building. As a further precaution against the inclemency of the season, the front end of the lodge was provided with a semi-circular door-yard with an additional door. This sort of native *atrium* resulted from a number of heavy poles or posts being made to rest at their small end on the gable wall, while their lower extremity described a half circle on the ground. The whole was then covered with brush. The outer doorway was shut with some worthless skin with the hair on, while the ground within the enclosure was strewn over with small branches of conifers, generally spruce. This enclosure, besides contributing to render the hut warmer, served also as a kennel for the dogs and as a bathroom for the old men. Its native name was *pən-tsiɬ* (a word of the third category of nouns).

In the ground plan, fig. 178, the space between the uprights and the corners of the lodge is purposely partitioned off. It forms what was known as the *'kûnt'ɲat tsatsa* or corner store, the sides of which consisted mainly of roughly hewn boards set up to the height of three or

four feet. Therein the family impedimenta were stowed away, and the number of such depositories generally corresponded to that of the cohabiting families.

A totally different style of winter dwellings obtained among the TsiɂKoh'tin and, through them, among the Lower Carriers. This was the *tɂizKɔn* or semi-subterranean hut. It had been borrowed from the two tribes' neighbours in the south and southeast, the Shushwap. Dr. F. Boas has already given* the plan and description of one which is probably of a representative character, while more lately Dr. G. M. Dawson has furnished us† with an example of a different style observed by himself among the Shushwap. None of these however tallies in point of construction with the *tɂizKɔn* of the Lower Carriers such as it existed among them some forty years ago. From information gathered from an eye-witness, I am enabled to give the following account of those constructed at Fraser Lake and Stony-Creek.

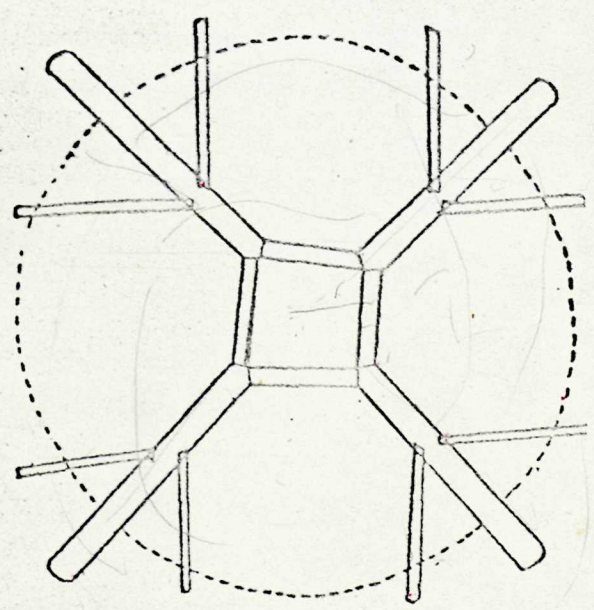

Fig. 180.

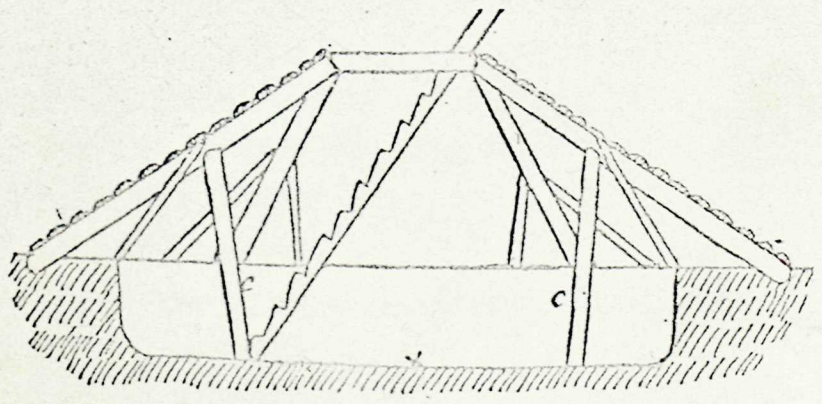

Fig. 181.

After an excavation some three feet deep and about 20 feet in diameter had been made, the butt ends of four large beams were made to rest a

* Sixth Report on the N.W. Tribes of Canada, figs. 20 and 21, Leeds Meeting B.A.A.S. 1890.

† Notes on the Shushwap People of B.C.; Trans. R.S.C. Sect. II., fig. 1, 1891.

little distance from the brim, on the original surface of the ground, while the beams converged with their small ends raised five feet or thereabouts to a point above the excavation, which was to become the door and smoke hole of the hut. These timbers were held up by means of four short pieces of wood, the end corners of which were wedged or locked in those of the larger beams, as shown in fig. 180. The aerial square orifice resulting from this combination was the doorway of the building. No other timbers were added to this frame-work, save that to further solidify the structure, two, or in larger huts, three, stout posts, *c*, forming a right angle with the main beams were planted in the floor with their upper ends notched in the beams, over which split poles were laid horizontally up to the top or rather the door.* This roof was then covered with earth. An Indian ladder—that is, a log notched at the proper stepping intervals—was the means of communication with the outside.

These huts were very comfortable, and but little fire was needed to keep them warm. From the TsiqKoh'tin names of the months we learn that they were occupied from October-November, but how long cannot be ascertained from that source. If we are to judge from a myth current among the same tribe, it would seem that these subterranean dwellings were, in olden times, spring as well as winter homes, since they are mentioned therein as being inhabited as long as the root digging season

The habitations of the Tsé'kéhne, whether in winter or in summer, are built after the eastern or conical model. Four long poles with forking extremities are set up one against another, the lower ends of which form on the ground a square on the dimensions of which will depend the size of the lodge. A score or so of other poles are then set up in a circle. the top of each resting on the point of intersection of the first four. In winter, small fascines of spruce are laid horizontally all around the lower perimeter of this frame, so as to leave as few points of access as possible for the cold air from underneath the outer covering, which is then wrapped around the cone resulting from the converging poles. This covering consists of dressed moose skins sewn together, and its perpendicular edges correspond to the entrance of the lodge. They are either buttoned or clasped together from four or five feet above the ground up to the top. On one side of the opening thereby produced is sewn a smaller skin, which forms the door. Two sticks attached transversely thereto on the inside give it the requisite consistency, while the upper one, which slightly projects beyond the edge of the skin door, serves as a latch, its projecting

* As shown in the accompanying cuts, minor logs were however added to the main timbers, so as to facilitate the roofing of the hut.

end being, when necessary, fastened with a string to the adjoining part of the lodge covering. The smoke escapes through the interstices between the converging poles left uncovered at the top. To guard against snow, rain or adverse winds, an additional piece of skin is sewn on the outside from the apex of the conical covering down to some distance, while its free side is secured to a long pole planted in the ground close by. This appendage is utilized as a shutter wherewith the top opening of the lodge is partially or entirely covered, as the state of the weather may suggest.

The summer lodge of the Tsé'kéhne has sometimes two entrances, and in this case the outward covering generally consists simply of two blankets or skins stretched over the frame poles, one between each door, The upper half of the cone is thus left uncovered.

Summer and winter, the fire is started right in the centre and, instead of the wooden tripod used among the Blackfeet to suspend their kettles,* the Tsé'kéhne prefer a stick reaching horizontally at the proper distance above the fire to two opposite poles of the frame to which it is fastened.

Carriers, TsiɊKoh'tin and Tsé'kéhne, nowadays more generally use, during their summer travellings, either cotton tents, or shelters composed of three or four sticks thrust slantingly in the ground, over which a sheet of cotton or canvas is spread. The latter style of shelter was probably the only one known among them prior to the introduction of European textile fabrics, save that, of course, a moose skin replaced the canvas or cotton sheet.

Of course the child of the forest, when in his primitive state, can boast the possession of no artificial means of reckoning time or measuring long distances. But Dame Nature provides him with a seldom failing standard measure in the shape of the sun, the course of which is familiar to him, no matter how far he may have swerved from beaten paths. Long distances are determined by the number of camps, and shorter ones by the position of the sun in the heavens. The sun serves also as his watch by daytime, and its bearings are easily taken in by the native mind. After it has left his pine-clad mountains to illuminate unknown worlds, the aborigine again looks up above to ascertain how long he will be deprived of its beneficent rays. The Great Bear then becomes to him the hands of a God given clock, and the distance it has travelled around its axis, the polar star, over the dial which we call the heavens, is very seldom, if ever, misreckoned. The Western Dénés are familiar with a few constellations which are, as among us, called after mythic personages; but none is

*Rev. E. Legal, *loco citato*.

so widely known as *Yihta*, the Great Bear. We have already seen the role it plays in the story of the Gambler; I must be pardoned for reproducing here another legend wherein it is to be recognized under a different garb, but playing a no less important part. As will soon appear, if fable it is, sociologically speaking, it is a fable with a moral.

"There was a young man who was impatiently awating the return of daylight to set out on a hunting expedition. Again and again he would look up at Yihta, and in his impatience he exclaimed: 'That old Yihta,* how slowly he walks!' Very soon after having uttered these words, he left for the chase.

"He had not gone far before he became aware by the barking of his dogs that they had scented game. After what appeared to him as a run of but a few moments, he overtook his dogs, and lo! sitting on a log was a man of beautiful countenance, carefully painted in red stripes over the cheeks, and holding a walking stick in his hands. He had a malicious smile on his face, so that the young man felt abashed in his presence and afraid to approach him. 'Come on,' said the stranger who was no other than Yihta, 'come on, young man. So you laugh at me and say that I walk too slow? Now learn that to reach me you have travelled a very long distance, since to help you I have contracted the surface of the earth. Go back then to your home, and take this staff to aid you on your long journey. Whenever you want food, hold it perpendicularly on the ground, then drop it and observe the direction in which it falls: if it falls in the direction of the northern wind, do not go that way, for there famine is awaiting you. If it falls towards the setting sun or towards the rising sun, go either way and you will find bears to kill, both male and female. Do likewise when you feel uncertain as to the direction of your house; and when you get home, hang the staff up in the branches of a tree. Above all, beware lest a woman having her menses catch sight of it.'

"At these words, the young man took the walking stick without however giving much credence to the stranger, for he believed his home was but a short distance from where he stood. Yet these words were literally fulfilled, and during his long peregrinations, amidst incessant fatigues and ever recurring privations, the young man owed his life to his careful observance of the stranger's directions. Many were the years he travelled, and he seemed to get a glimpse of his lodge several days before he really reached it. When he finally got home, he was an old man with hair white as snow, and his lodge was crumbling down through age and decay."

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* *Nten Yihta'qel!* Expressive of scorn.

From this short Carrier myth, the sociologist will learn that :—Firstly, the observation of the Great Bear as a means of reckoning time was a national custom among Carriers. Secondly, the heavenly bodies were regarded as quasi divine powers which it is wrong to speak lightly of, a deduction which might easily be proven to be legitimate by other points of Carrier psychology. Thirdly, to look handsome, a Carrier of the old stock must paint his face. Fourthly, the Carriers had a correct idea of the immensity of the universe. Fifthly, the injunction not to travel in a northern direction might perhaps be interpreted as a reminiscence of the tribe's migrations southwards. Sixthly, a woman having her menses is legally impure, and must be deprived even of the sight of any object endowed with magic powers. Lastly, more than one of those writers who are so fond of parallelisms between American mythologies and the Biblical narrative will no doubt be tempted to compare the beneficial, food-giving and road-finding staff of the young traveller with the marvellous miracle working wand of Moses which, during similarly life-long peregrinations, opened the way and found water where none was to be seen. This suggestion, however, is given for what it may be worth, and I must leave it to others to decide whether it is not too far fetched.*

Now that we have extracted *morals* enough from our fable, we revert to the description of the few items which still claim our attention.

If my information is reliable, there were formerly no fortified villages among the Western Dénés. One should not however infer from this that there was no warring among them; on the contrary, I think I am warranted in stating that atonement by compensation for losses of life, even involuntary or accidental, was much less practised here than on the Coast. But hostilities were seldom of so general a character as to involve whole villages, though some such cases are recorded in the traditions of the tribes. More commonly they were restricted to two different gentes, and their cause may have been the killing of a man openly or, as was supposed, through the black art of the shamans. In the latter case, the dying person usually revealed the name of the magician to whom he attributed his death, and nobody dreamt of questioning the truth of his would-be revelation. Naturally, more than once personal grievances must have been thus avenged. The cognate families of the real or fancied murderer would then expect reprisals at the hands of the co-gentile families of the deceased, and they would erect, generally in secluded spots of the forest, what was called *pɔR-pa-yɔR* or "a house for

* The TsiqKoh'tin possess a different tradition, the principle hero of which works innumerable marvels with the help of a magic wand which they call *'toR*, a word not employed to designate any other kind of wand or staff.

the war." This primitive fort consisted of a log-house as solid as possible under the circumstances, with a strong log roofing, over which a square breastwork of small diameter was built with the same material. If not taken by surprise, the besieged shot at their assailants through loop-holes pierced in this rude stronghold, the existence of which was concealed by fascines of coniferous branches piled on the roof up to the top of its walls. Similar portholes were also cut in the walls of the house itself for service in case of a sudden attack. As a further protection against such a contingency, an addition with a second door was always made to the front end of the house. Frequently a building similar in appearance, but really of no strength whatever, was erected in close proximity so as to deceive the enemy and give time during an attack on the wrong work to the besieged to prepare for the defence. The only Déné "fort" I have ever seen was constructed just as described, but wanted the roof breastwork.

An indispensable adjunct to the native dwelling house is the *tsa-tcən** or provision store. There is stowed away the dried salmon, which is the daily bread of both Carrier and TsiqKoh'tin. But while both tribes practically live on the same diet, their store houses very materially differ in construction. Fig. 182 is the Carrier tsa-tcən which, as may be seen, is an aerial building. The distinctive characteristics of all these provision stores are faithfully reproduced in the cut; but their minor details nowadays vary not a little. I have chosen for illustration that which approaches nearer to the traditional type. It consists of two parallel frames planted upright in the ground, the component parts of which are furnished in the middle with transversal beams upon which rests the floor of the tsa-tcən proper. With the exception of the front end, the whole is made of heavy pŏles superposed one upon another or laid in close juxtaposition, as the case may be, and fastened to the frame of the building by means of *'kən* or high cranberry bush wattle. The front end is entirely of boards. All the wall poles being laid with their larger ends in the same direction, a slight inclination results at the top, which constitutes the roof of the building. This is furthermore covered with spruce bark.

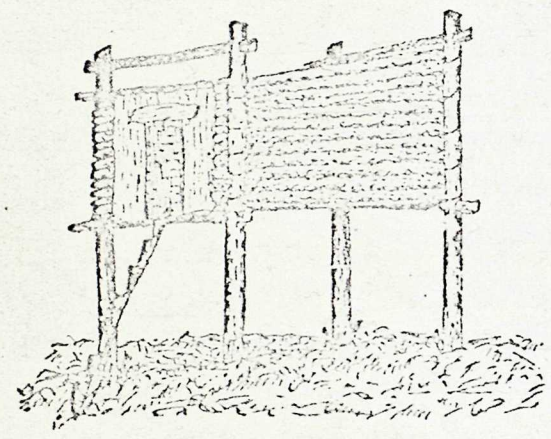


Fig. 182.

* Literally: "beaver-stick." I can see no reason for this etymology.

The tsa-tcən of the TsiɬKoh'tin are not so elaborate, since they are nothing else than small and very rude, though solid, log huts built right on the ground (fig. 183) and, as a rule, quite a distance from the regular village, while their Carrier counterparts are generally very close to the habitations.

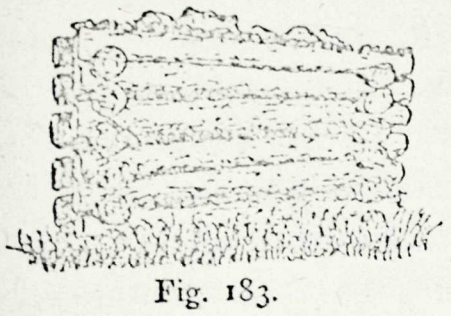


Fig. 183.

The Tsé'kéhne have nothing to do with salmon, and consequently the need of provision stores is not so urgent among them. Yet when they happen to be blessed with an abundance of dried meat and wish to preserve it for future use they erect sorts of scaffoldings immediately against the trunk of a tall tree which are to them the equivalent of the Carrier tsa-tcən. These consist of two long, heavy sticks crossed and firmly bound to the trunk of the tree at their point of intersection, while their ends are secured to some stout overhanging branch by means of strong ropes. Rough boards or split sticks are then laid across this frame which form a floor over which the meat or any other eatable is deposited, carefully wrapped over with skins or spruce bark. Even the bear cannot get at those *caches* without previously demolishing their floor, which is practically impossible.

The careful observer who would take a fancy to travelling along our chief salmon streams could not fail to notice, in some spots immediately over the banks, numerous excavations or pits which betray an artificial origin. These are all that remain to-day of the salmon cellars of the prehistoric Carriers. Aerial stores were then as now the regular family larders; but not unfrequently the natives of the old stock preferred to cache down their fish in temporary cellars which had the advantage of keeping it fresher than the common store-house. A matter of taste as regards the salmon itself, this caching down in the ground became a necessity relatively to its roe, which was buried, wrapped in spruce bark, until it had reached an advanced stage of putrefaction, when it was relished by the native palate as the *ne plus ultra* of delicacy.

The last item more or less connected with aboriginal habitations is the sweat-house or sweating-booth.* According to Dr. G. M. Dawson, this usually consists, among the Shushwap, "of about a dozen thin willow wands, planted in the ground at both ends. Half of them run at right angles to the other half, and they are tied together at each intersection. Over these a blanket or skin is usually spread, but I have also seen them covered with earth. A small heap of hot stones is piled in the centre,

* *Tsè-zol*, "stone-hot," a word of the third category.

and upon these, after carefully closing the apertures, the occupant porsu some water. The sweat-house is always situated on the banks of a stream or lake, so that on issuing therefrom the bather may at once plunge in the cold water."* One single point—and that a very unimportant one—differentiates the sudatories of the Carriers from those of the Shushwap: I mean the covering, which among the former is of spruce bark. Here, as further south, these sweat-houses are invariably to be found near a stream or lake; but the reason of this is merely that our Indians never dwell away from the water, for I have never heard of a Carrier taking a cold bath immediately after his steam bath. It may also be worth mentioning that, more often than otherwise, steam-bathing was originally practised for quite other than sanitary motives. It was quite commonly prompted by a desire on the part of the "patient" to ensure success during a forthcoming hunting or trapping tour, or to atone through this penitential act, for any transgression, wilful or involuntary, against the traditional laws and customs of the tribe.

*Notes on the Shushwap People of British Columbia; Trans. R.S.C. Sect. II., 1891, P. 9.

CHAPTER XII.

MONUMENTS AND PICTOGRAPHY.

A search for "monuments" among such a primitive people as the Déné cannot be but unproductive of satisfactory results. Indeed, throughout the whole territory of both the TsiɊKoh'tin and the Tsé'kéhne, not a single work is now extant which could, with any degree of appropriateness, be classed under that head. Even such as may now be seen among the Carriers are—barring funeral monuments—exceedingly scarce. All of them may be reduced to two distinct categories: wooden, carved monuments, and painted or drawn monuments. Hence the two divisions of this chapter: carved monuments and pictography.

CARVED MONUMENTS.

Genuine carved monuments are to-day very few, and seem to have always been so among the Carriers. Indeed so scarce are they that every one of those now extant will easily be illustrated herewith. I shall pass over the totemic columns of the Hwotso'ten which are still in a good state of preservation, for the reason that their carving and erection were the work of their exogenous neighbours, the Kitikson, whose nearer village stands hardly three miles off. Those monuments are merely witnesses to the influence exercised by outsiders over a very unartistic race, and the custom of erecting them had not been adopted by the main bulk of the Carrier tribe. This cannot be said of the famous commemorative mortuary columns so common all over the North Pacific Coast, and which had been appropriated as far inland as the boundaries of the Tsé'kéhne territory. All of these have long disappeared, with the exception of the two herewith represented, which I sketched ten years ago at Ɉrak, a village site among the Nutca'tenne, the population of which is now extinct. These columns are a further corroborative evidence of my thesis, viz., that the Déné race has no eye for the beautiful. Compared with those of the Coast Indians, they stand in the relation of an undeveloped embryo to the matured being. As is well known among Americanists, such works served as depositories for the few remaining charred bones of the deceased, and were erected in close proximity to the village. The two specimens figured below are rather plainer than the average mortuary column of the Carriers since, according to my informants, the totem crest of the deceased was generally carved in

relief thereon. These monuments were, as a rule, grouped according to the different clans obtaining among the tribe. This arrangement has survived in the column fig. 185, which now stands at Fort Babine in the

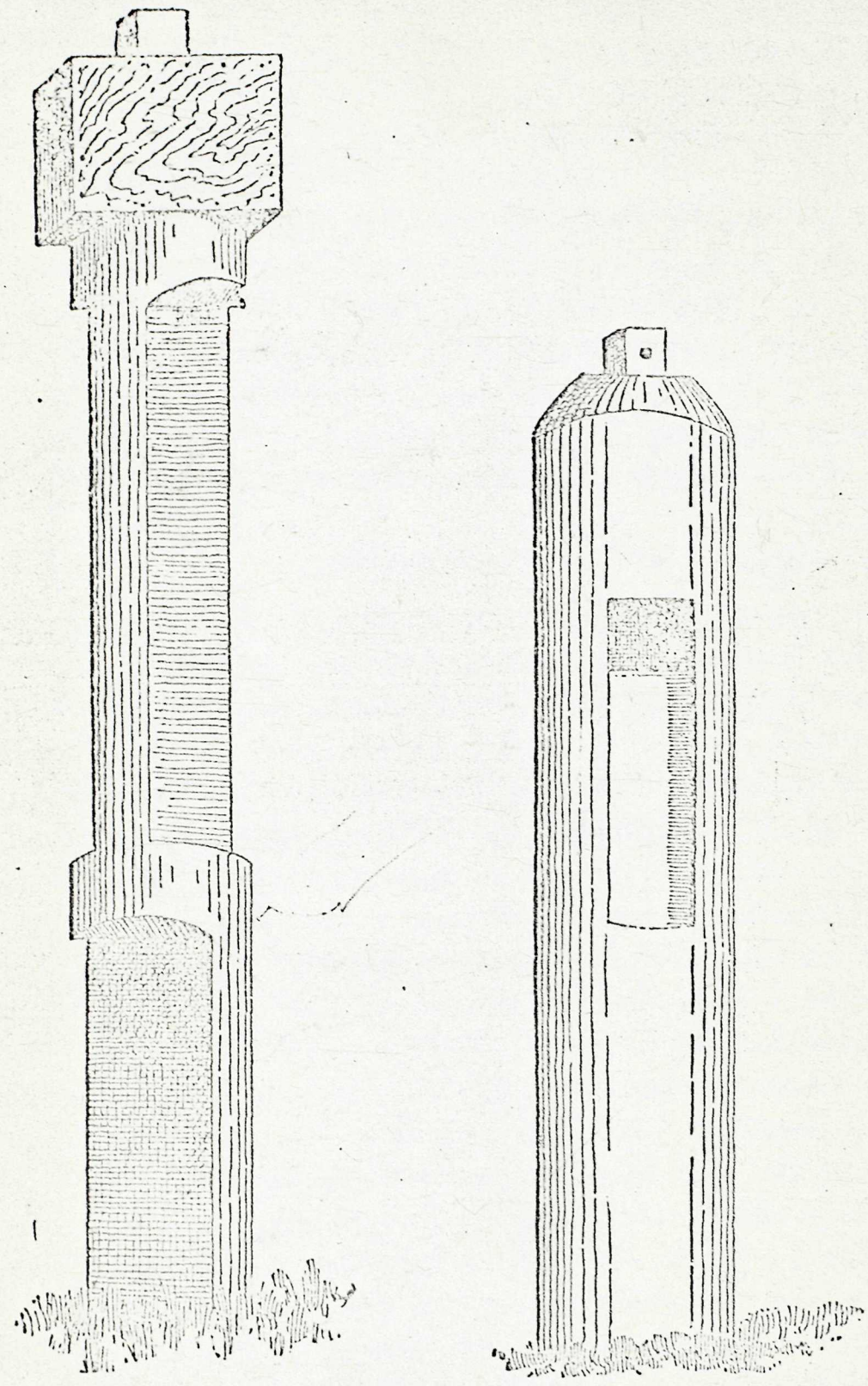


Fig. 184.

midst of the graves of *Tsa-yu-ne*, one of the native gentes, the chief totem of which is the beaver. It was, of course, erected in pre-Christian times. Such is also the case with regard to the grave shown in fig. 186,

whose occupant was likewise a fellow of the Beaver clan. His grave is to be found at *Tsé-tcah*, on the confines of the Hwo-to'tin territory.*

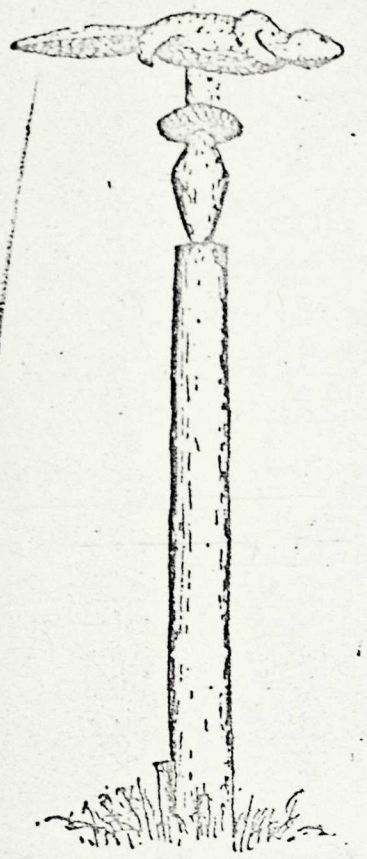


Fig. 185.

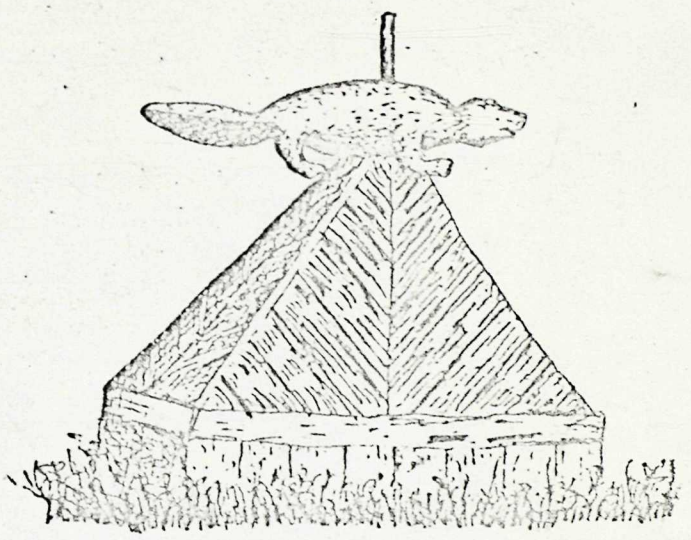


Fig. 186.

In fig. 187 the totem crest of the old days has been replaced by the Christian symbol which now appears over all the native Déné graves. These monuments affect a multitude of forms and designs, though by

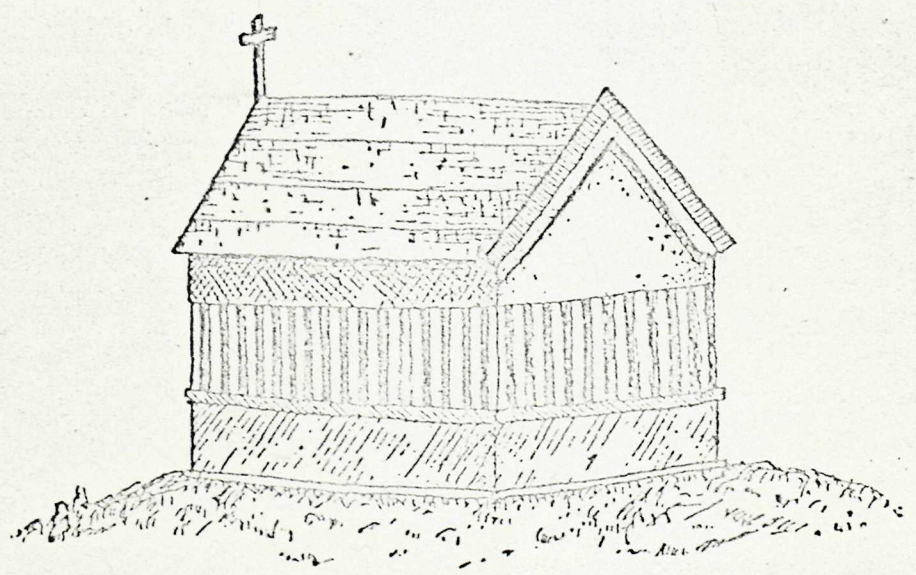


Fig. 187.

far the greatest number of them resemble, in a general way, that herewith illustrated. It is over a late grave, and is painted in several gaudy

* See the map affixed to my paper; Are the Carrier Sociology and Mythology indigenous etc.? Trans. R.S.C. Sect. II., 1892.

colours, the severity of the black and white of the rubrics being repugnant to the native taste which sees in such works no monuments of grief or sorrow, but rather affectionate tributes to the memory of the dead which it behooves one to make as showy as possible. This explains why some of them are so absurdly large, sometimes graves, even of children, being covered with "monuments" affecting the shape, and almost the dimensions, of rectangular cart-sheds.

To the above let us add the wooden totem crest ornamenting two native houses and we will have the sum total of all the carvings now to be seen throughout the whole territory of the Tsiɬkoh'tin, the Carriers and the Tsé'kéhne. Of these sculptures, the first only (fig. 188) can

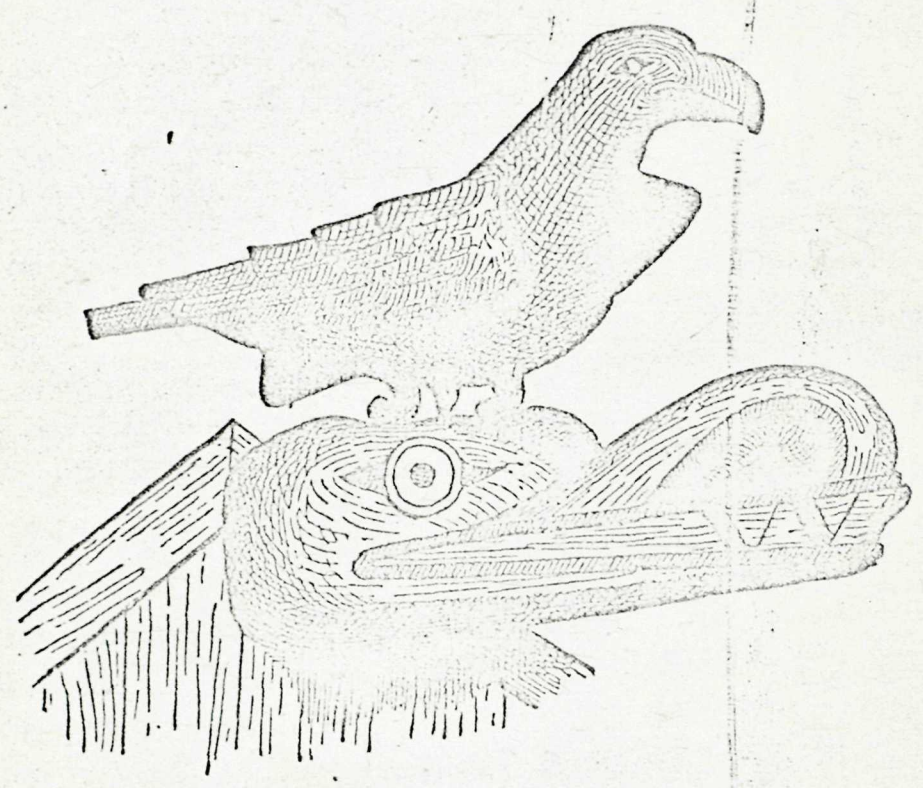


Fig. 188.

boast a few scores of years. It represents a raven standing over the head of some marine animal—possibly the orca. The reason of this incongruous coupling may probably be seen in the fact that the inhabitants of the place wherein the totems are to be found are of mixed parentage, as they have considerably intermarried with their western neighbours, the Bilqula. The last carving (fig. 189) is quite modern. The owl thereby represented has been carved out of a balsam poplar tree (*Populus balsamifera*) and adorns the front gable end of a fishing shanty at the outlet of Lake Stuart.

References to the totems and gentes of the Western Dénés have been frequent in the course of this monograph, and, especially in view of what remains to be said in the latter part of this chapter, some more detailed information concerning them may be found acceptable.

F. G. Frazer, the principal authority on Totemism, says: "Considered in relation to men, totems are of at least three kinds: (1) The clan totem, common to a whole clan, and passing by inheritance from generation to generation; (2) the sex totem . . . ; (3) the individual totem, belonging to a single individual and not passing to his descendants."*

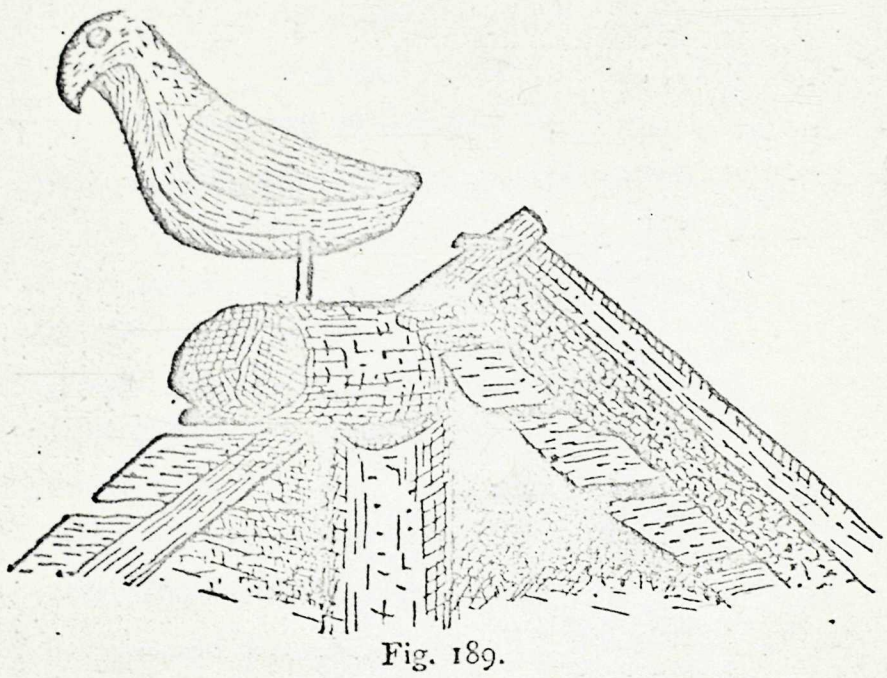


Fig. 189.

Of the sex totem I know practically nothing, as it does not obtain among our Indians; but to these three varieties of totem I can add a fourth, which I shall call the honorific totem, and of which a full explanation will be found further on. The individual or personal totem is well known as being some material object or being, most generally some animal, ordinarily revealed in dreams to a person who is bound thereafter to look upon it as sacred and to be especially revered and protected. In return for this reverence on the part of the person, the totem is believed to particularly help and powerfully protect its human relative, as the individual is supposed to be. As for the clan totem, any reader of Americana is too familiar with it to be in need of any definition or explanation. One totem generally—though not always—corresponds to one clan or gens, so that the former and the latter are very often in equal numbers. Four gentes obtain among the Çarriers, of all which I herewith submit the native names together with those of their respective totems.

GENTES.	TOTEMS.
Tl'səmɔc-yu.	The Grouse.
Tsa-yu.	The Beaver.
Yəsîl-yu.	The Toad.
Təm'ten-yu.	The Grizzly Bear.†

* Totemism, Edinburgh, 1887, p. 1.

† Judging from fig. 188, it would seem that the crow or raven is regarded as the totem of some clan among the Lower Carriers. It is not known here in that capacity.

With the exception of Tsa-yu, which means "Beaver-medicine," those words are untranslatable and are probably imported from among the heterogeneous tribes from which the whole system is undoubtedly derived. The first gens, Tt'səmac-yu, is by all odds the most powerful among the Carriers, while the two last named are considered as having a sort of affinity which entitles the members of each to mutual consideration and protection. The name of the latter, Təm'ten-yu in Babine, is changed to *Kwən-pa-hwo'tenne** among the Carriers proper.

In great native festivals, the totem of the celebrating clan was carved and exposed at the door of the lodge so that every exogentile incomer may have an opportunity of presenting it with anything of value which he may intend for the givers of the feast with the tacit, but well-known, understanding that it be subsequently paid for by a donation of at least equal worth. Even the public naming of one's gentile totem by a member of a different clan demanded the gift of a blanket, a piece of dressed skin, or any article of wearing apparel, so that the crest may not remain ignored and the whole gens thereby dishonoured.

An important sociological peculiarity which I have nowhere else noted claims attention in this connection. The clan totem is called *nətsi* in Carrier. But beside the nətsi there existed here another kind of totem which I have named the "honorific totem." It was personal and did not pass to one's descendants, though it differed from that revealed in dreams. Its native name was *shən-'koh*, a compound word which may be freely translated by "rite." It was voluntarily assumed with an accompaniment of befitting ceremonies by any titled or untitled individual who wished to advance in social standing. It entitled the owner to special consideration, though the latter could on that account lay claim to the possession of no hunting grounds nor to the exalted rank which was the strict property of the "noblemen" or *toneza'*. In a word, those honorific totems created a sort of middle class, the *bourgeoisie* of the Carriers. They were many and varied, and, with the exception of one, they followed the clan in such a way that those proper to one could not be assumed by a member of another. Here are those now remembered by the natives:—

To the Tt'səmac-yu belonged the Owl, the Moose, the Full Moon, the Weasel, the Wind, the Crane, the Wolf, the "Darding Knife," the "Rain of Stones," and the Brook Trout.

Of those pertaining to the Tsayu or Beaver gens, only the Mountain Goat is now remembered.

---

* "Inhabitants of the fireside."

The Yəsîlyu had the Sturgeon, the Arrow, the Porcupine, the Wolverine, the Red-headed Woodpecker, the Cattle and the *Təlt'sâ*, a kind of fabulous animal resembling a gigantic toad, with large, bulging eyes.

My informants know of only the Goose as belonging to the Təm'tenyu clan.

Another honorific totem or crest was called *Səmaʃ*, a word of extraneous origin. The exact nature of this cannot now be defined, as the mimicking accompanying its exhibition is but vaguely remembered. All that is known for certain is that it was very highly appreciated and, as a rule, it was the appanage of the notables exclusively. For here I must remark that even the notables or noblemen were not debarred from assuming one or more of the different honour crests proper to their gens.

Luɟem is another word of forigin origin which designated the Bear as an honorific totem.* It could be assumed by anybody, irrespective of clannish differences.

The connection of the individual with his crest appeared more especially during ceremonial dances, when the former, attired, if possible, with the spoils of the latter, was wont to personate it in the gaze of an admiring assemblage. On all such occasions, man and totem were also called by the same name. The adoption of any such "rite" or crest, was usually accompanied by initiatory ceremonies or observances corresponding to the nature of the crest, followed in all cases by a distribution of clothes to all present. Thus whenever anybody resolved upon getting received as Luɟem or Bear, he would, regardless of the season, divest himself of all his wearing apparel and don a bear skin, whereupon he would dash into the woods there to remain for the space of three or four days and nights in deference to the wonts of his intended totem animal. Every night a party of his fellow-villagers would sally out in search of the missing "bear." To their loud calls: *Yi! Kəluɟem!*† he would answer by angry growls in imitation of the bear. The searching party making for the spot where he had been heard, would find by a second call followed by a similar answer that he had dexterously shifted to some opposite quarter in the forest. As a rule, he could not be found, but had to come back of himself when he was speedily apprehended and conducted to the ceremonial lodge, where he would commence his first bear-

* The Déné word for Black Bear is *ɔ̄ɔs* or *ɔ̄as* according to the dialect.

† Words of Tsimpsian parentage meaning apparently: Come on, Bear! The nature of those words plainly denotes the origin of the whole institution.

dance in conjunction with all the other totem-people, each of whom would then personate his own particular totem. Finally would take place the potlatch of the newly initiated "bear," who would not forget to present his captor with at least a whole dressed skin.

The initiation to the "Darding-Knife" was quite a theatrical performance. A lance was prepared which had a very sharp point so arranged that the slightest pressure on its tip would cause the steel to gradually sink into the shaft. In the sight of the multitude crowding the lodge, this lance was pressed on the bare chest of the candidate and apparently sunk in his body to the shaft, when he would tumble down simulating death. At the same time a quantity of blood—previously kept in the mouth—would issue from the would-be corpse, making it quite clear to the uninitiated gazers on that the terrible knife had had its effect, when lo! upon one of the actors striking up one of the chants specially made for the circumstance and richly paid for, the candidate would gradually rise up a new man, the particular *protégé* of the "Darding Knife."

PICTOGRAPHY.

"All the known graphic systems originate in a picture-writing as rude as that of the American Indian or of the South African Bushman. All have advanced from the picture to the conventionalized hieroglyphic representing an idea or a word; while from the hieroglyph has sprung the syllabary represented by rougher sketches of the monumental emblems, and requiring a smaller number of necessary symbols. Finally among the more civilized of ancient races the alphabet was gradually introduced as a simplification of the syllabary which reduced the necessary emblems to about a fifth of their previous number."* Gauged after this criterion, the Western Dénés may be said to have been in a state of transition between the first and the second stage of graphic culture; or perhaps, it would be as correct to say that they were already in the second while retaining lingering reminiscences of the first. Their petroglyphs were in a large measure pictures with some admixture of conventionalized forms; but their usual means of communication while travelling and their tatto'o marks had, to a great extent, become the mere shadows of the original pictographs.

Of their rock inscriptions I cannot find any better specimen than that reproduced in fig. 190. Its most conspicuous character represents a grizzly bear, the tracks of which may be seen some distance behind. The waving lines at the bottom stand for water, wherefrom a sturgeon

* From an article in the "Edinburgh Review," reproduced in Little's Living Age, Aug. 23, 1890, p. 451.

is seen emerging. The natives are not agreed as to the meaning of the large spider-like figure to the left, but the probability is that it is intended to represent Yihta, the Great Bear. Immediately above is a toad in a somewhat conventionalized shape, while below, and to the left, are two figures of birds, the lower one of which is a grouse. The other signs are the emblems of fishes, figures of men or symbols of objects which cannot now be identified. There is no *ensemble* or unity in the whole. It is only an aggregate of pictures or signs painted in red ochre by different individuals and at different times. Most of them are very old.

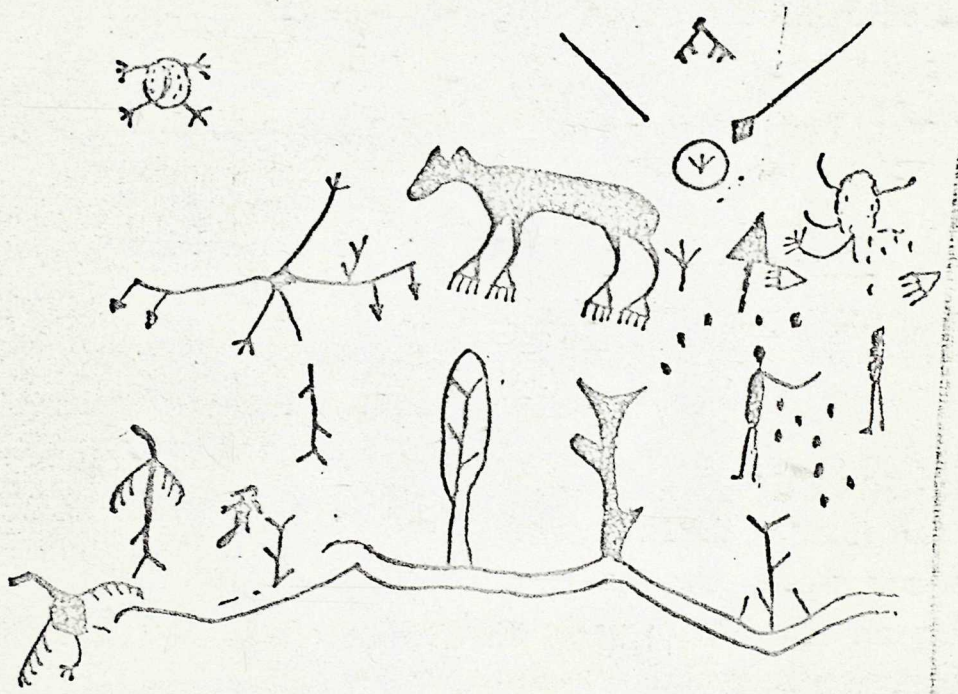


Fig. 190.

The various objects represented are personal totems, and the object in view in depicting them on rocks will be better understood by a reference to the locality of the inscription reproduced above. It is to be seen about half way between this place, Stuart's Lake or Na'kraztli and Pîntce, the nearest village by water. By painting in such a conspicuous place the totem which had been the object of his dream, the Pîntce Indian meant to protect himself against any inhabitant of Na'kraztli, as the intimate connection between himself and his totem could not fail, he believed, to reveal by an infallible presentiment the coming of any person who had passed along the rock adorned with the image of his totem. Thus it will be seen that clairvoyance had adepts even in such an out of the way place as Stuart's Lake.

Fig. 191 is, of course, a mere picture. The oval circle wherein the caribou stands is intended to represent a mountain. A shield is instinctively called to mind by fig. 192; but the natives are positive that this is a false impression, as the inner circle stands for a den within or upon a mountain. The four figures between the two circles are the known

emblems of the beaver; but the meaning of the whole figure is not very clear. Such is the case with fig. 193, wherein some say we have a crane, while others profess to see therein some large species of beetle.

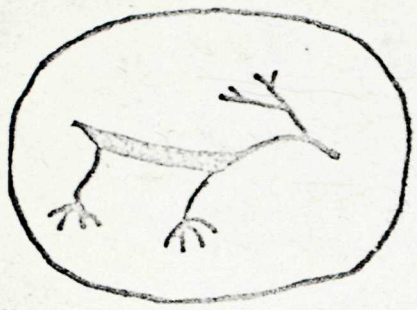


Fig. 191.

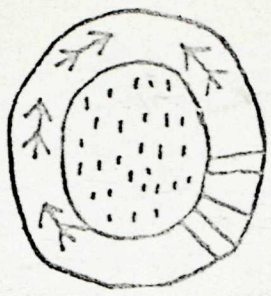


Fig. 192.

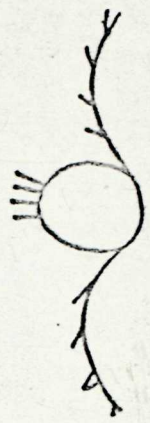


Fig. 193.

So far we have dealt with signs or pictures such as seen in stone inscriptions only. But it is chiefly through the tattoo markings or the signs occasionally executed in charcoal while travelling that the Carriers have shown their departure from the earliest or pictorial stage of the graphic art. Even within such classes of totemic representations the gradual alteration from the pictorial or life-like forms to the mere conventional outlines is easily discerned. I need adduce no better illustration

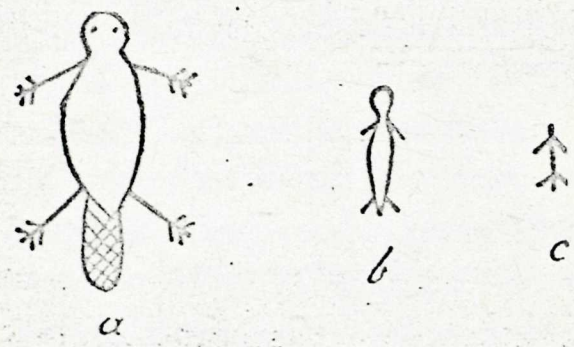


Fig. 194.

of this than the three styles of representing the beaver shown in fig. 194. *A* is the original pictorial form, and is adopted whenever the beaver is tattooed on the breast; *b* is a middle, altered form, with a strong tendency to simplification, and is used in connection with face tattooing, whilst *c* is the conventionalized form of the same, and is the common mode of representing the beaver in those rude, ephemeral drawings in the woods, though it is occasionally found even in ancient rock inscriptions.

I have already stated that tattooing on the breast was rare among the Western Dénés. This is so true that I know of no other totemic marks there situated than the few exhibited herewith. We have just seen that *a* stands for the beaver, *b* represents a toad, *c* and *d* are the fore and hind paws of the grizzly bear, while *e* is the figure of the moon.

All the face tattoo marks which can now be seen or remembered among the Carriers are found in fig. 196. They may be briefly described

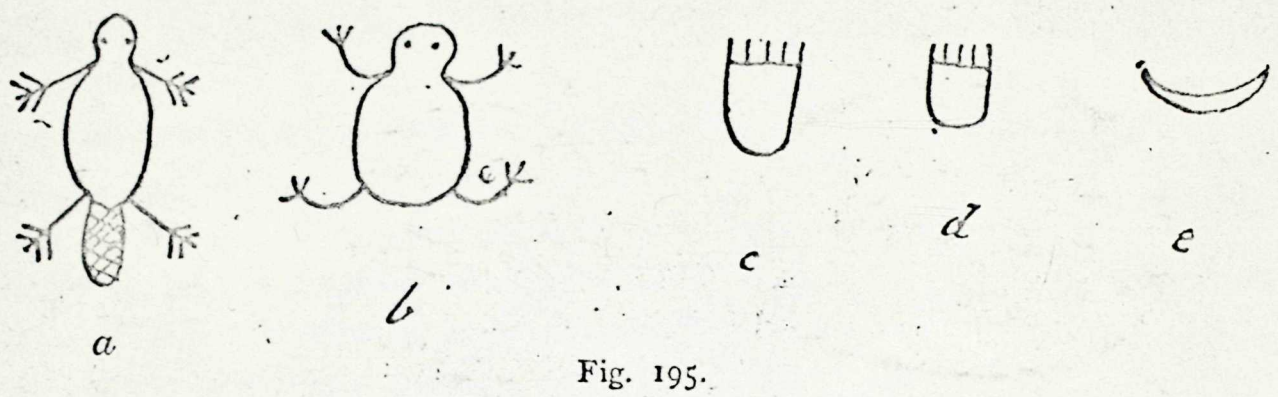
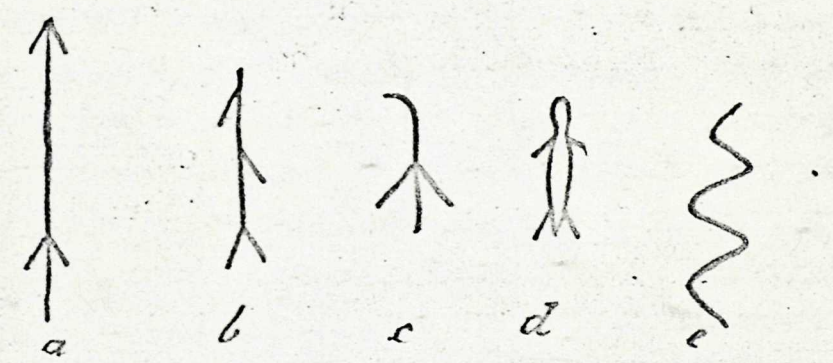


Fig. 195.

thus:—*a* is the emblem of the otter; *b* that of any fish; *c* that of a bird; *d* is a beaver; *e* is the *silhouette* sign of a stick in the water; *f* that of a



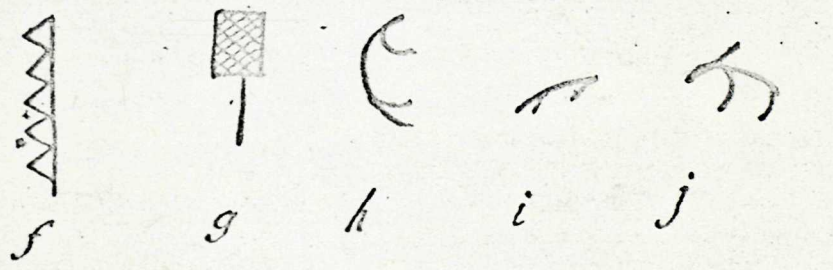


Fig. 196.

mountain; *g* is a fern root digger; *h* is the symbol of the marten; *i* that of the lizard, and *j*, that of the cariboo.

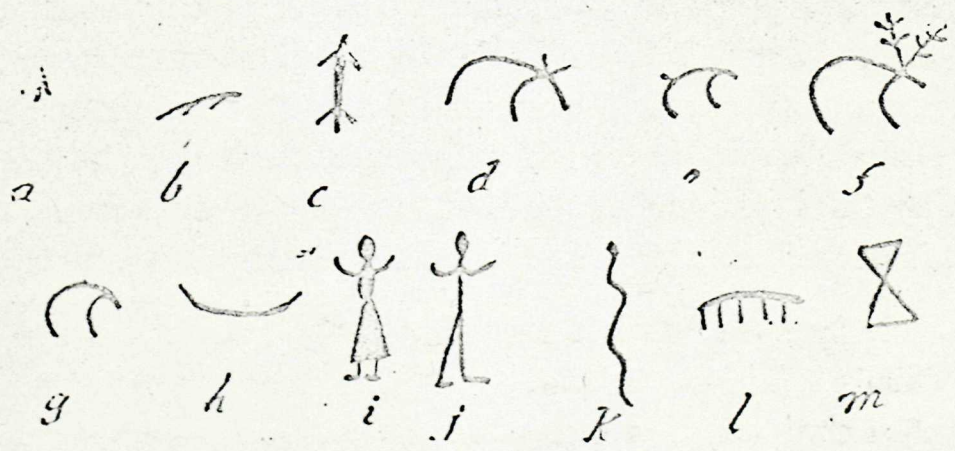


Fig. 197.

Fig. 197 presents us with the graphic signs used as means of communication between different hunting parties. They alone might be

pointed to as the elements of native "writing." The two last are taken from rock inscriptions. They are now unintelligible to the Carriers. Here is the meaning of the others:—*a*, bird; *b*, lizard; *c*, beaver; *d*, bear; *e*, lynx; *f*, cariboo; *g*, marten; *h*, canoe; *i*, woman; *j*, man; *k*, snake.

These are generally drawn in charcoal on trees or, by exception, on stones, and as such it must be confessed that they afford but a very restricted medium of expression to the native mind. It has therefore to call into requisition any other material means which may be at hand, and it must be said that the use made of them is sometimes wonderful. I was lately travelling in the forest at a time when the yearly re-appearance of the salmon was eagerly looked for. At a certain spot not very far from a stream we came upon one of those aboriginal drawings made by an old man who had no knowledge of the syllabic signs now used to write the Déné languages. The drawing represented a man with a woman, a horse with a burden, the emblem of a bear with three marks underneath, and a cariboo. Above the whole and hanging from a broken branch were four pieces of young bark cut out in the conventional form of the fish. Now the message was instantly read by my companions, and it ran thus: "Such a one (whom they named)* has passed here with his wife, and a good load of furs, after having killed three bears and one cariboo; and furthermore he captured four salmon *two days ago*. He is now gone in the direction that we follow ourselves." This date could evidently not have been told had the Indian marked with charcoal the sign of the salmon. He was so well aware of this and was so much intent upon fixing the time of the first appearance of the fish that he had had recourse to the pieces of bark, the relative degree of freshness of which he knew could easily be determined by the experienced eye of his fellow Carrier.

This leads me to detail the various non-graphic means of communication between the different bands of huntsmen. Does the traveller intend to mark his passage in the forest? He cuts a switch or rod and plants it in his trail pointing to the direction he is following. Is he in distress, and does he beg for succour at the hands of those who he knows shall pass by the same trail? Forthwith he breaks or bends the top of as many shrubs as possible all along his path. No native party will profess ignorance of his meaning nor, as a rule, leave unheeded his appeal. Other significant combinations will be found sketched in our last figure. Thus *b*, a stick broken by the middle, means: "we are going to camp a

* They identified him by the very circumstance that he travelled with a horse, as he was the only one likely to pass there who possessed such an animal.

short distance off. You need not be in a hurry". *C* has the opposite meaning: "we are going to camp a long distance from here; hurry up!" By disposing the stick as shown in *d*, the natives are understood to say: "we have turned back awhile, but finally gone on." *E* is intended to represent a piece of burnt rag hanging from a bent down rod; it is the signal of famine and an appeal for help, the direction of the stick always

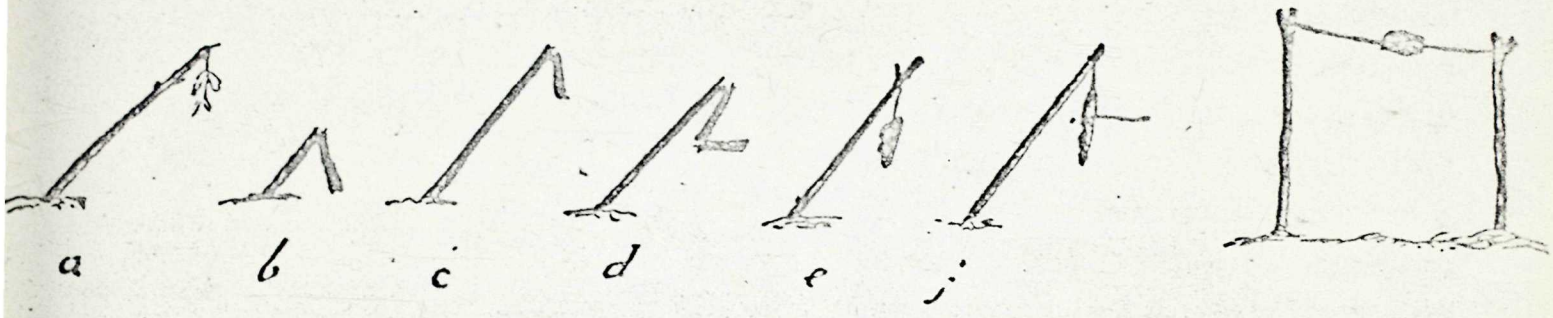


Fig. 198.

pointing to the trail of the distressed party. If, instead of parched rags, an abundance of cariboo or moose hair is to be seen on the stick, the reading must be just the reverse. It is then a notification that the party has killed plenty of cariboo or of moose, and, at the same time, an invitation to go and help dispose of them. *F* is a small bunch of dry grass wherein a small rod has been driven as an indication that a member of the band has been shot. Lastly, when a short stick is found hanging across the trail, as shown in *g*, everybody will understand that a person in the preceding party has come to his death from natural causes.

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And a few others with which I am not personally acquainted.

ADDENDA ET CORRIGENDA.

Page 25—After paragraph 4 add the following as an additional subdivision :—Hwozahne, two villages, namely, Stony Creek (Sai'kəz), population 88, and Laketown or Nuɬkre, population 65, both of which are situated a little south of Fraser Lake.

Page 30—After "Fort George" insert:—Hwozahne, south of Fraser Lake

Page 35—Strike out "the Eskimo" and add :—to which might almost be added the Eskimo, were it not that J. Murdoch (Ethnological Results of the Point Barrow Expedition, Ninth Ann. Rep. Bur. Ethnology, Washington, 1892) states that he obtained from a Point Barrow tribe three fragments of a sort of pottery, the material of which "was said to be earth (nu'na) bear's blood and feathers, and appears to have been baked" (p. 91).

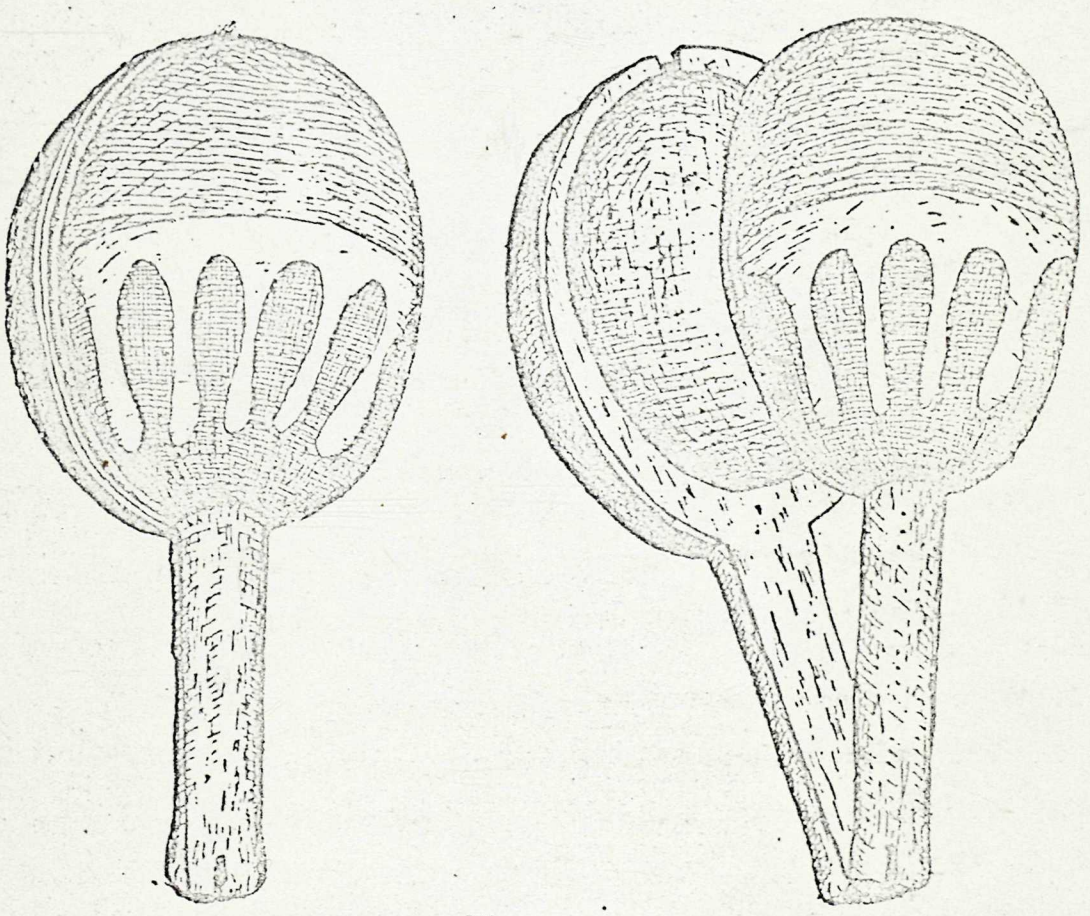

Fig. 199.

Page 118—Dele the whole paragraph beginning "These other objects" and substitute :—Three other objects, which as sociological items were also due to the influence of the maritime tribes, but had become naturalized among, and were made by, the Carriers, were the *nîɬrwos* or medicine-rattle, the *hans'taih*, or ceremonial mask, and the *t'sak*, or long, festival dish. These were almost the only objects of art of genuine Déné manufacture to which I can point, and yet I do not think I unduly depreciate my Indians' artistic capabilities by adding that they were rather below than above the average of similar aboriginal carvings. The appositeness of this remark will become evident by a comparison of fig. 199, wherein we have a representative Carrier medicine-rattle, with illustrations of similar implements so frequently met with in modern essays on the Northwest Coast Indians. As may be seen by the cut *b*, the Déné rattle is made of two hollowed halves bearing some resemblance to wooden dippers. Its material is birch, and its only ornamentation is in paint, not carving. The figure explains the mode of connection of the two parts of the rattle.

The masks were used only by mimics accompanying by grotesque gestures and jerkings of the head the dance of a privileged few; but the rattles served a double purpose: they did service in connection with a notable's dance, being then held in the hand by the dancing personage himself, and also as an accompaniment to the incantations of the *toyon* or shaman. No ceremonial masks of genuinely Déné make are now available for illustration: but such objects are, even at the present day, so common among the natives of the Pacific Coast that they hardly need any description. It may suffice to refer the reader unacquainted with North American aboriginal paraphernalia to the plates or figures illustrating. . . .

Page 181—After "their occult art" insert:—Let me add that some of these head-dresses, while retaining the name of *cyas-krei*, were composed of beaver-teeth, sometimes daubed with red ochre. One such specimen recently came into my possession which lacks the double row of dentalium shells usual with crowns made of real bear's claws.

SESSION 1892-93.

FIRST MEETING.

First Meeting, 5th November, 1892, the President in the chair.

Letters were read from the American Society of Civil Engineers and from the United States Weather Bureau.

Donations and Exchanges since last meeting, 1552.

The following were elected members:—Miss Marcella Wilkes, W. H. Marcon, Dr. Oronhyatekha, R. H. Bowes, W. Morrison.

The following gentlemen were, on the recommendation of Council, elected corresponding members for three years:—R. G. Haliburton, Q.C., F.R.G.S., Dr. T. W. Beemer, Rev. A. G. Morice, O.M.I.

The following motions were passed:—

Moved by J. C. Hamilton, seconded by Prof. Macallum:—

"That this Institute recognizes with very sincere regret the great loss it has sustained since its last session in the death of four of its honoured members:—His Honour Sir Alexander Campbell, K.C.M.G., Sir Daniel Wilson, LL.D., D. A. O'Sullivan, LL.D., Q.C., and Nelson G. Bigelow, M.A., LL.D., Q.C., M.P.P., and that a minute of this resolution be entered in the Transactions of the Institute."

Moved by Dr. Kennedy, seconded by Alan Macdougall:—

"We, the members of the Canadian Institute, ask to be permitted to add our tribute of respectful regret and sorrow on the loss sustained by our province in the death of Sir Daniel Wilson. For over thirty-eight years a member of the Institute, he took a deep interest in its progress, enriching its Transactions by numerous contributions of his talented pen. Elected President in 1859, he for many years afterwards remained a constant and warm friend till in 1884, as a tribute to his interest in our work and a respectful recognition of his labours in Literature, Archaeology, and Ethnology, he was elected an honorary member, the highest distinction the Institute could confer upon him. The Institute at this its first meeting after his death records its appreciation of the services rendered by Sir Daniel Wilson, mourns for the loss it has sustained, and conveys to his family its respectful expression of sympathy in their great and deep affliction."

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