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P R E F A C E.

THE first volume of the "Transactions of the American Ethnological Society" was published in 1845, and copies of it were sent to many learned societies and individuals interested in Ethnology in various parts of the world. With but few exceptions the receipt of the volume has been acknowledged, and the Society has received in turn many valuable donations in books, pamphlets, maps, &c., a list of which is prefixed to this volume.

Soon after the publication of the first volume, the Society was made acquainted with the researches of Mr. Squier and Dr. Davis in Ohio, amongst the aboriginal remains of that State. These gentlemen exhibited to the Society their collection of ancient relics taken from the mounds, and drawings and plans of various earthworks and other aboriginal structures of that region. So much were the members of the Society interested in the explorations of these gentlemen, that they resolved to publish a full account of the same in the present volume of its Transactions.

The memoir was scarcely prepared when their discoveries began to attract the attention of the learned, and particularly of the Regents of the Smithsonian Institute at Washington. That institution conceived that the work would be a proper one for them to issue; and overtures were made to the Ethnological Society to relinquish its claim.

To this the Society willingly consented, especially since the authors had added greatly to the size of the work originally contemplated by the explorations of another year, and since the Insti-

tute is far better able to bring the work before the public in a style commensurate with its excellence and importance than the Society with its very limited means. Before being finally adopted by the Institute, the work was submitted in its then shape to the Society for its deliberate opinion, and was examined by a committee appointed for that purpose. The result of their examination was highly favorable to the work. The Society take this opportunity to express their entire confidence in the truthfulness and accuracy of the work in question, as well as of the brief abstract of the same which has been prepared for this volume by Mr. Squier.

It is desirable for the extension of Ethnological Science, and particularly of that portion of it which tends to elucidate the history of the aboriginal American race, that the explorations of Messrs. Squier and Davis, which have been productive of such interesting results, should be extended to other portions of the country.

It is gratifying to state that the science to which this Society is devoted is beginning to receive much attention in many parts of the world. The American Missionaries in distant parts are manifesting an interest in it, inasmuch as many of them are aware that a knowledge of the history, manners, language, and literature (if any) of the nations among whom they labor, is the first essential step to the introduction among them of the religion and knowledge of Christendom. From them many original papers of value have been received, and more are expected.

The Society cannot conclude without expressing its gratification at the noble contribution to our infant science contained in the series of works which are in course of publication as the fruits of the recent American Exploring Expedition. Some of the results of Mr. Hale's investigations will be found in the following pages.

PAPERS READ BEFORE THE AMERICAN ETHNO-
LOGICAL SOCIETY.

- An account of certain Antiquities, chiefly stone implements, found in Brazil, with notices of instruments of bone used by the Aborigines at the present day. By Virgil von Helmreichen, of Rio Janeiro.
- An account of the recent Explorations and Discoveries on the site of ancient Nineveh, made by Mr. A. H. Layard, in communications from him to Mr. Kellogg, of Cincinnati, and by the latter to the Society.
- On a collection of Peruvian Antiquities in the cabinet of Senhor Barroza of Rio de Janeiro. By Thomas Ewbank.
- On the Eloquence of the North American Indians. By Caleb Atwater, of Circleville, Ohio.
- An account of Researches and Discoveries amongst the tumuli and earthworks of Mississippi and Louisiana. By M. W. Dickeson, M. D. of Natchez, Mississippi.
- A catalogue of Antiquities in the collection of M. W. Dickeson, M. D., made by him in Mississippi, Louisiana, Florida, and Texas.
- On the Geographical Distribution and Means of Subsistence of the North American Indians at the time of the discovery of America. By Albert Gallatin. *Published.*
- Serpentine Temples of the United States, with observations on the use of the Serpent Symbol in America, particularly in Mexico and Central America. By E. G. Squier, A. M.
- Ethnographical Sketch of the Mpongwe people, near the Gaboon river, Western Africa. By Theodore Dwight. *Published.*

- On some Mounds on the plain of Oroomiah, Persia, supposed to be the work of the ancient Fire Worshipers. By Rev. J. Perkins, Missionary at Oroomiah.
- View of the Ancient Geography of the Arctic regions of America, from accounts contained in old Northern Manuscripts. By Prof. Charles C. Rafn, of Copenhagen, Denmark. *Published.*
- A description of the Ancient Earthworks on Wolf's Plains in Athens County, Ohio, five miles from the town of Athens, with plans. By S. B. Hildreth, M. D., of Marietta, Ohio.
- Sketch of the Polynesian Language, drawn up from Hale's Ethnology and Philology. By Theodore Dwight. *Published.*
- An Investigation of the Theories of the Natural History of Man, by Lawrence, Prichard, and others, founded upon Animal Analogies; and an outline of a Natural History of Man, founded upon History, Anatomy, Physiology, and Human Analogies. By W. F. Van Amringe. *Since published in a volume by himself.*
- An account of some Aboriginal Remains near the village of Gallipolis, Ohio. By Wm. C. Prime.
- Several communications on the Mounds and Earthworks of the Mississippi and Ohio Valleys, and the Relics found in them. By E. H. Davis, M. D., of Chillicothe, Ohio.
- A Grammatical Sketch of the Language spoken by the Indians of the Mosquito Shore. By Alexander J. Cothéal. *Published.*
- Observations on the Aboriginal Monuments of the Mississippi Valley. By E. G. Squier. *Published.*
- A communication from Baron Von Hammer-Purgstall, of Vienna, with a list of books and manuscripts relating to the Negro race, and to the ancient Himyarites, found in Arabic literature.
- On the Ancient Semi-Civilization of New Mexico and the Great Colorado of the West. By Albert Gallatin. *Published.*
- Present Position of the Chinese Empire, in respect to the extension of trade and intercourse with other nations. By S. Wells Williams. *Published.*
- On the Sacred Books of Persia, being an Analysis of a work entitled "Commentaire sur le Yaçna, l'un des livres religieux des Parses; par Eugène Burnouf." By John R. Bartlett.

- A letter with a Memoir, giving an account of researches in Syria, and the discovery of Ancient Remains and Inscriptions, addressed to Prof. Robinson, by W. M. Thompson, of Beyroot, Syria.
- Remarks on an Original Map or Plan of the City of Jeddo in Japan, laid before the Society. By S. Wells Williams.
- An account of a Craniological Collection, with remarks on the classification of some families of the human race. By Samuel George Morton, M. D. *Published.*
- On the Formation of an Oriental Society in Germany, with a Sketch of its Proceedings, and of the state of Oriental Literature in Germany. By W. W. Turner.
- On three Phenician Inscriptions recently discovered in Cyprus, with explanations, by Prof. Roediger. Read by Rev. Dr. Robinson.
- On the Mpongwe Language, and the Ethnography of Western Africa. By the Rev. J. Leighton Wilson, Missionary to the Gaboon Country, West Africa.
- On the Progress of Ethnology. By John Russell Bartlett. *Published.*

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The History of Oregon and California, and the other territories of the North-West Coast of North America, with Proofs and Illustrations, Map, &c., by Robert Greenhow. 8vo. Boston, 1844.....	<i>Robt. Greenhow.</i>
Second edition of the same, 1845.....	<i>do.</i>
The Geography of the Western Section.....	<i>do.</i>
Études sur l'histoire primitive des Races Océaniques et Américaines, par G. D'Eichthal. 8vo.....	<i>G. D' Eichthal.</i>
Mémoire sur l'histoire primitive des Races Océaniques et Américaines, par Gustave D'Eichthal.....	<i>do.</i>
Manuscript Vocabularies of the Berber, Tuarick, and other Languages and Dialects of Northern Africa, collected by W. B. Hodgson. 2 vols. folio....	<i>W. B. Hodgson.</i>
Mémoires de la Société Royale des Antiquaires du Nord. 1840 to 1846. 3 vols. 8vo. Copenhagen.....	<i>Royal Soc. Northern Antiquarists.</i>
Ethnology.—The Study of Ethnology, by Dr. Diefenbach.....	<i>Ethnol. Soc. of London.</i>
The Progress of Ethnology, by T. H. Hodgkin, M.D.....	<i>do.</i>
Address to the Ethnological Society of London, by Richard King, M.D.....	<i>do.</i>
Various Papers read before the Ethnological Society of London.....	<i>do.</i>
Lettre a M. Ph. Fr. de Siebold sur les Collections Ethnologiques. 8vo. Paris, 1843.....	<i>E. F. Jomard.</i>
Mémoire a Christophe Colomb, son Portrait, par E. F. Jomard.....	<i>do.</i>
Des Cartes en Relief, par E. F. Jomard.....	<i>do.</i>
Ph. Fr. de Siebold Lettre a M. Jomard sur l'utilité des Musées Ethnographiques, et sur l'importance de leur création dans les Etats Européens qui possèdent des Colonies. 8vo. Paris, 1843.....	<i>do.</i>
What to Observe; or, the Travellers' Remembrancer, by Col. J. R. Jackson, F.R.S. 8vo. 1845.....	<i>J. R. Jackson.</i>
Report of the Fourteenth Meeting of the British Association for the Advancement of Science. 8vo. 1845.....	<i>British Association.</i>
Maps of New York Bay and Harbor, a portion of the Coast Survey of the United States.....	<i>A. D. Bachs, Supt.</i>
Observations on a Roman Vase found in Bedfordshire, England, by Samuel Birch, F.S.A. 4to. 1844.....	<i>Samuel Birch.</i>

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Sycee Silver--an Essay on, by Samuel Birch.....	do.
Chwang Yuen Yew Hoo She, an extract from, by Samuel Birch.....	do.
Journal of the American Oriental Society. Vol. 1; Nos. 1-3. 1844-47.....	Am. Orient. Soc.
Deux Notes sur d'anciennes Cartes Historiques manuscrites de l'école Catalane. Par M. D'Avezac. 8vo. Paris 1844.....	M. d'Avezac.
Les Îles Fantastiques de l'Océan Occidental au moyen âge, par M. D'Avezac, 8vo. Paris, 1844.....	do.
Notes on Northern Africa, the Sahara and Soudas, by Wm. B. Hodgson, 8vo. New-York, 1844.....	W. B. Hodgson.
Documents et observations sur le cours du Bahr-el-abiad ou le Fleuve-blanc, par M. D'Arnaud.....	F. Catherwood.
Second Voyage à la recherche des sources du Bahr-el-abiad ou Nil-Blanc, ordonné, par Mohammed-Aly.....	do.
An Inquiry into the distinctive characteristics of the Aboriginal Race of America, by Samuel Geo. Morton, M. D. 8vo. 1844.....	Dr. Sam. G. Morton.
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Crania Egyptiana; or Observations on Egyptian Ethnography, derived from Anatomy, History, and the Monuments, by Samuel G. Morton, M. D. 4to. Philadelphia, 1844.....	do.
Crania Americana; or, a Comparative View of the skulls of various Aboriginal nations of North and South America; with an Essay on the variety of the Human species, illustrated with 78 Maps and Plates, by Sam'l George Morton, M. D. Folio. Philadelphia, 1839.....	do.
Transactions of the American Antiquarian Society. Worcester, Mass. 2 vols. 8vo.....	Am. Antiq. Soc.
Catalogue of the Library of the American Antiquarian Society. Worcester, 8vo.	do.
Memoir on the Language and Inhabitants of Lord North's Island, by John Pickering. 4to. Cambridge, Mass. 1845.....	Hon. John Pickering.
A Vocabulary of the Boshilè Language, on the Eastern Coast of Africa, by S. E. Massey. 4to. Cambridge, Mass. 1845.....	do.
Lectures de M. Paul Emile Botta, sur les découvertes à Khorsabad près de Ninève. Publiées par M. J. Mohl, Membre de l'Institut. 8vo. Paris, 1845.	M. J. Mohl.
Voyage dans l'Yemen en 1837. Par Botta, pour le Muséum d'Histoire Naturelle de Paris. 1841.....	do.
Examen de Die Altperischen Keilenschriften von Persepolis, par M. E. Jaquet. Paris, 1839.....	do.
Essai sur la langue Pehlivie, par M. le Docteur Muller. Paris, 1839.....	do.
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The Travels of Ibn Batuta, translated from the Arabic manuscript copies in the Public Library of Cambridge, with notes, illustrative of the History, Geography, Botany, Antiquities, &c., occurring throughout the work, by the Rev. Samuel Lee, D.D. 4to. London, 1829.....	Rev. Samuel Lee, D. D.
A Grammar of the Hebrew Language, comprised in a series of Lectures by Rev. Samuel Lee, D.D. 8vo. 1844.....	do.

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Eusebius, Bp. of Casarea, on the Theophasia, or Divine Manifestation of Jesus Christ; translated into English with notes, from an ancient Syriac version, with a vindication of the orthodoxy and prophetic views of that distinguished writer, by the Rev. Samuel Lee, D. D. 8vo. Cambridge, 1843.	do.
Ancient Runic Book, facsimile from the Wooden Blocks or Tablets, presented by M. Jomard of Paris to General Cass.....	Henry R. Schoolcraft.
Ueber die Alt-Amerikanischen Denkmäler, von Joh. Dan. von Braunsehweig, mit einem Vorwort von Carl Ritter. 8vo. Berlin, 1840.....	M. Von Braunschweig.
Memoir on the Megatherium and other extinct gigantic Quadrupeds of the coast of Georgia, with observations on its geological features, by Wm. B. Hodgson. 8vo. New-York.....	Wm. B. Hodgson.
Bulletin de la Société de Géographie de Paris. Third series. Tome IV. V. & VI. Paris, 1845-46.....	Société de Géographie.
The Literature of American Local History: a Bibliographical Essay by Hermann E. Ludewig. 8vo. New York, 1846.....	H. E. Ludewig.
Wm. Gessnius, Hebräische Grammatik neu bearbeitet und herausgegeben, von E. Rüdiger. 8vo. Leipzig, 1845.....	Prof. E. Rüdiger.
Antiquarisk Tidsskrift udgivet af det Kongelige Nordiske Oldskrift-Selskab, 1843-45. Copenhagen.....	Royal Soc. of Northern Antiquaries.
Bulletin de la Société Royale des Antiquaires du Nord, 1843. 8vo. Copenhagen, 1845.....	do.
Amerikas Arctiske Lande Gamle Geographie efter de Nordiske Oldskriftler ved Carl Christian Rafn. 8vo. Copenhagen, 1845.....	do.
Maps of New Haven, Connecticut, and Little Egg Harbor. U. S. Coast Survey. Sup. U. S. C. Surv.	
An Account of the Manners and Customs of the Modern Egyptians, written in Egypt during the years 1823-34 & 35. by Edw. W. Lane. Third edition, 2 vols. 8vo. London, 1842.....	Edw. W. Lane.
Hybridity in Animals and Plants, considered in reference to the question of the Unity of the Human Species, by Samuel George Morton, M. D. 8vo. Philadelphia, 1847.....	Dr. S. G. Morton.
Observations on the Ethnography and Archeology of the American Aborigines, by B. G. Morton. 8vo. New Haven, 1846.....	do.
Proceedings of the American Philosophical Society. Nos. 36 & 37, from July 1846 to March 1847.....	Amer. Philos. Soc.
Observations sur le voyage au Darfour suivies d'un Vocabulaire de la langue des habitans et de remarques sur le Nil-blanc Supérieure, par M. Jomard. 8vo. Paris, 1845.....	M. Jomard.
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The Footfalls of Central Africa, and the African Slave Trade, by W. B. Hodgson. 8vo. Savannah, 1843.....	W. B. Hodgson.
Serapion. Zeitschrift für Bibliothekwissenschaft, Handschriftenkunde, und ältere Literatur, von Dr. Robert Neuman. 8vo. Leipzig, 1843....	Hermann E. Ludewig.

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ARTICLE I.

HALE'S INDIANS OF NORTH-WEST AMERICA,

AND

VOCABULARIES OF NORTH AMERICA ;

WITH AN INTRODUCTION.

BY ALBERT GALLATIN.

INTRODUCTION.

THIS Introduction embraces four objects: 1. Geographical notices and the means of subsistence of the Indians; 2. Ancient semi-civilization of New Mexico, Rio Gila and its vicinity; 3. Philology; 4. Miscellaneous observations.

It had been originally intended to give, under the first head, a condensed statement of meteorological observations, both in America and Europe; for the double purpose of instituting a correct comparison of the climate of the American sea-shores on the Atlantic, with both that of the opposite sea-shores in Europe, and that of the American shores on the Pacific; and of ascertaining, as far west as the observations extended, the varieties of the American climate in the interior of the country. But the time and labor necessary for a correct analysis of the materials, and the space which the discussion would require, were such as to preclude the possibility of including it in this introduction. A condensed table of the observations, made at different posts under the direction of the Surgeon-General of the Army of the United States, is inserted, to which occasional reference will be made.

In the division into four seasons, the winter embraces the months of December, January, and February; the spring, March, April, and May; the summer, June, July, and August; the autumn, September, October, and November.

I. GEOGRAPHICAL NOTICES, AND INDIAN
MEANS OF SUBSISTENCE.

SECTION I.

CLIMATE.

The remarkable difference of climate north of the Tropics, or within the limits of that which is generally called the Temperate Zone, between the north-west coast of America and that of the Atlantic States, is well known. This phenomenon is not peculiar to America. It may be said, generally, that all the countries which, either on the Atlantic or on the Pacific Ocean, both in Europe and in America, face the west, enjoy a much more temperate climate than those which, both in America and Asia, face the east. This well-ascertained fact has generally been ascribed to the prevalence of the westerly winds, which, in the first instance, crossing respectively through their whole breadth the Pacific and the Atlantic Oceans, acquire the temperature of the sea; whilst, in the other case, they are land-winds, bringing with them the frigid character of the lands they traverse. But, without ascending to the primary cause of the phenomenon, the certain fact of its existence is sufficient for our purpose.

It may also with propriety be observed, that the respective southern boundaries of the Eskimaux have been regulated by that difference of climate. In the country bordering on the Atlantic, they are known to have had permanent establishments, on the northern shores of the Gulf of St. Lawrence, ~~in~~ about latitude 50°. On the north-west coast of America, they are not traced farther south than the vicinity of Behring's Bay, or about latitude 60°.

It seems that Fort Vancouver is the only place, on the Pacific shores of the United States, where meteorologic observations have been made. Although it lies more than

three degrees of latitude south of Paris, the similarity between the climate of both is striking, not only as regards the mean temperature of the whole year, but also in its distribution among the four seasons. Although Eastport lies nearly one degree of latitude south of Fort Vancouver, the mean annual temperature of this is near 8° Fahrenheit higher than that of Eastport; and it is also higher for each of the four seasons. The difference is greatest in winter (more than 18°), and next in spring (6°). The range, or difference between the hottest and coldest days is, at Fort Vancouver 78° Fahrenheit, and at Eastport 104° .

It is obvious that the influence of the winds, which are the cause of that remarkable difference of climate, must, in Europe, on receding from the sea-shore, be gradually lessened, till it ceases altogether, and the difference of climate between places in the same latitude, is, besides the different elevation above the level of the sea, determined by other causes; among which may be reckoned, the direction, breadth, and elevation of chains of mountains, and such inland seas as the Baltic and the Mediterranean.

The action of the winds on the climate is altogether different in North America; and there are also essential differences in the topography of the northern portions of the two hemispheres.

The westerly and north-westerly winds, which are the primary cause of the difference of climate between the opposite shores of the Atlantic, are in America land-winds, which prevail in the interior as well as on the sea-shore, as far westwardly as the line which divides the waters of the Atlantic from those of the Pacific. The distinctive feature of the topography of North America is found in the direction of the mountains, which is uniformly north and south, without any transversal chain from east to west, of sufficient elevation to arrest the winds and produce any difference in the climate.

As the winds assume the equal temperature of the seas

or large bodies of water they traverse, countries surrounded by seas enjoy a more temperate and uniform climate. This is exemplified in the most striking manner in the British Isles; and the peninsula of Nova Scotia enjoys also a much more temperate climate than the sea-shore of Maine, which lies south of it. For the same reason, the unequal distribution of the temperature among the several seasons of the year, is modified on the American sea-shores of the Atlantic by the sea-breezes, the temperature of which is always cooler in summer, and warmer in winter, than that of the adjacent land.

Mr. Lawson, the distinguished Surgeon-General of the United States Army, has pointed out the similar effect, produced by the great interior lakes of America, on the climate of the country situated in their vicinity. The area of those lakes contains 94,000 square miles. Lake Ontario is but 232 feet above the level of the sea: the elevation of the others varies from 565 to 596 feet. The mean depth of Lake Erie is but about eighty feet; that of the others varies from 500 to 1000 feet. The effect produced on places in their vicinity will be exemplified by comparing the climate of Niagara with those of Portsmouth and of Prairie du Chien, which lie in nearly the same latitude; and also by comparing that of Michilimackinac with that of either Fort Snelling on the Mississippi, or of Eastport, both of which lie south of Michilimackinac.

The observations along both the sea-shore and the Mississippi corroborate the general law of the mean annual temperature, viz., that, in as far as it is regulated by the latitude, it decreases in a greater ratio as the distance from the equator increases. Thus:

Diff. of lat.	between Eastport, 44° 44' } 14° 54'	Diff. of mean ann. temp.	42.95 } 29.61
	and St. Augustine, 29° 30' }		72.66 }
Or about 2° of Fahrenheit for each degree of latitude.			

Diff. of lat.	between Eastport, 44° 44' } 7° 42'	Diff. of mean ann. temp.	42.95 } 18.48
	and Fort Monroe, 37° 2' }		61.43 }
Or 2.4 Fahrenheit for each degree of latitude.			

Diff. of lat. betw'n Ft. Monroe, $37^{\circ} 9'$ } 70 FF Diff. of mean ann. temp. 61.43 } 11.23
 and St. Augustine, $25^{\circ} 50'$ }
 Or 1.56 Fahrenheit for each degree of latitude.

It will be found in the same manner, that along the Mississippi, from the mouth of St. Peter's River to New Orleans, which differ $14^{\circ} 43'$ in latitude, the general ratio is 1.72 Fahr. for a degree of latitude; but between the mouth of St. Peter's River, in lat. $44^{\circ} 58'$, and St. Louis, in lat. $38^{\circ} 28'$, the ratio is 1.92 Fahr. for a degree of latitude; and between St. Louis, in lat. $38^{\circ} 28'$, and the vicinity of New Orleans, in lat. $30^{\circ} 10'$, the ratio is 1.58 Fahr. for a degree of latitude.

But it is in the distribution of the temperature amongst the several seasons and months of the year, that the great difference of climate consists, between places situated under the same latitude and at the same elevation above the sea.

By recurring to the table above mentioned, and comparing places under the same latitude lying respectively along the Atlantic sea-shore and on the Mississippi, it will at once appear that the winters are more severe and the summers warmer on the Mississippi than along the sea-shore. A few instances will show the extent of that difference.

Comparing Fort Snelling, at the confluence of the river St. Peter's with the Mississippi, and in lat. $44^{\circ} 53'$, with Eastport, in lat. $44^{\circ} 44'$, we have the following results of the temperature in degrees of Fahrenheit:

	Fort Snelling.	Eastport.
Mean Annual Temperature,	45.83	42.95
Mean Winter do.	15.95	22.95
Mean Summer do.	72.75	62.10
Mean Temperature of the coolest month,	13.58	20.68
Do. do. of the hottest month,	75.47	64.55
Coolest day in the year,	-26.	-13.
Hottest day in the year,	93.	91.
Range between hottest and coolest day,	119.	104.

Comparing Prairie du Chien, on the Mississippi, in lat. 43° 03', with Portsmouth, in lat. 43° 04', we find :

	Prairie du Chien.	Portsmouth.
Mean Annual Temperature,	45.52	47.21
Mean Winter do.	19.90	26.39
Mean Summer do.	70.79	65.72
Mean Temperature of the coolest month,	18.04	24.50
Do. do. of the hottest month,	71.41	67.89
Coolest day in the year,	-25.	-06.
Hottest day in the year,	95.	91.
Range between hottest and coolest day,	120.	97.

Comparing Rock Island, in the Mississippi, in lat. 41° 28', with both Newport, in lat. 41° 30', and Fort Columbus, in New-York harbor, in lat. 40° 42', we find :

	Rock Island.	Newport.	Ft. Columbus.
Mean Annual Temperature,	51.64	50.61	53.
Mean Winter do.	26.86	32.51	32.39
Mean Summer do.	75.91	69.66	73.70
Mean Temperature of the coolest month,	23.78	29.93	30.68
do. do. do. hottest do.	77.92	71.45	74.58
Coolest day in the year,	-10.	2.	2.
Hottest day in the year,	96.	85.	97.
Range between hottest and coolest day,	106.	83.	95.

The more uniform temperature of Newport than that of other Atlantic ports, is due to its insular position, and to the fact that the Atlantic lies due south of it.

The only place west of the Mississippi, embraced in the statements published by the Surgeon-General, is that at the junction of the Missouri and the River Platte, called Council Bluffs. It lies in lat. 41° 45', and in long. 96°; the mean temperature of its winter season and of its coldest month is still lower than that of Rock Island, which lies only 17' south of it; and the range of the thermometer between the hottest and coolest day amounts to 120 degrees.

The fact is thus fully established that, under the same latitude as far west as long. 96°, the climate becomes more

and more unequal, on receding from the sea-shore westwardly towards the interior; and that the greatest difference is found in the winter months, the mean temperature of which is, under the same latitude, from six to eight degrees lower on the Mississippi than on the sea-shore. The difference between the respective coolest days in the year is still greater, amounting to twelve or thirteen, and in one instance to nineteen degrees.

Farther west, at least north of lat. 40°, the whole country is an open prairie, destitute of trees, and entirely open to the northerly winds from the Arctic Ocean, which sweep without any obstacle over that whole plain. And, though not demonstrated by a sufficient number of actual observations, there is presumptive evidence sufficient to authorize the belief, that the Stony Mountains form generally the division line, which separates the Pacific from the Atlantic climate, and that the respective influence of both is felt as far as that chain of mountains.

The meteorological observations made under the direction of the Surgeon-General were of course confined to the forts occupied by detachments of the army of the United States. These surround, without penetrating into it, the country actually settled and inhabited. Those observations which may have been made by individuals within those limits, are not within my reach. Yet throughout the vast territory which extends from the shores of the Atlantic to the Mississippi, and from those of the Gulf of Mexico to the Great Lakes, a territory which contains nearly the whole of the present population of the United States, it is believed that, with the exception of the country immediately bordering on the Great Lakes, the difference of temperature, under the same latitudes, is generally affected by few other causes than the respective elevation above the level of the sea.

The Alleghany mountains, whose course is from north-east to south-west, and nearly parallel to the Atlantic sea-

shore, consist of various parallel chains. Considered as a whole, they are from 100 to 150 miles distant from the sea, and they have, between North Carolina and New-York, a breadth of 80 to 100 miles. Their mean elevation does not much exceed 2000 feet above the sea; and, beyond their own immediate vicinity, they do not seem to form a marked division line with respect to climate.

Corresponding in some degree in position with the Alleghanies, the Californian chain runs parallel to the Pacific Ocean, and may be traced from lat. 30° to lat. 40° . Its character however is very different. Almost impenetrable between lat. 30° and lat. 40° , where its character is designated by its name of Sierra Nevada, it is farther north less continuous, varying greatly in its elevation, but remarkable by a series of insulated, highly elevated peaks.

Between this chain and the Alleghany mountains, but much nearer to the Pacific than to the Atlantic, is found the principal chain of the continent. The Stony or Rocky Mountains appear to be the continuation of the Andes or Cordilleras, and they form a continuous elevated and distinct chain from lat. 40° to the Arctic Ocean. But it must be recollected, that there, as well as in many other places, the ridge which divides the sources of the rivers flowing in opposite directions, is not always identic with the most elevated range of the chain; and that it is this which, on account of its elevation, is the dividing line between two climates.

The principal chain would seem, far north, to be west of Mackenzie's River. But there may not be any marked difference of climate, in the regions under the same latitude which are drained by rivers that empty into the Arctic Ocean. Setting these aside, and beginning in about 52° north latitude, the main chain of the Stony Mountains which, as far south as latitude 48° , separates the waters of the Columbia River from the sources of the several branches of the river Saskachawan, which falls into Hudson's Bay,

is also the dividing line of climate. Between latitudes 48° and 42° or 41° , the ridges which separate the waters flowing thence eastwardly or westwardly, are, with the exception of some peaks, less elevated than the main chain of mountains which, within these latitudes, lies west of the dividing ridge. It is found, accordingly, that the buffalo range extends, in a westerly course, a considerable distance down Lewis or Snake River, one of the most considerable branches of the Columbia. For it is a well known fact, that the buffaloes are always arrested by the highest and most steep mountains; for which reason they have never penetrated into Oregon beyond, as in this instance, some of the upper branches of the Columbia.

West of the main chain, a very mountainous country extends westwardly through the southern part of Oregon. But, although well known to the agents of the Hudson's Bay Company and to the American emigrants, the system of mountains of that extensive territory has never, to my knowledge, been described in an intelligible manner.

South of a line which extends from the sources of the Great Colorado of the West, in about lat. 42° , to the high mountains which, in about lat. 38° and long. $105\frac{1}{2}^{\circ}$, separate the waters of the Rio del Norte from either those of the Rio Pecos or from the tributaries of the Mississippi, the country between these mountains and the Great Rio Colorado may be considered as a group of various chains, running from north to south and terminating between latitudes 30° and 32° . But I speak with diffidence of the country drained by the Great Colorado. It is only by reports from Indians and American *trappers* that its mountainous character is known, and we are very far from having sufficient materials for a correct delineation of the mountains either in that basin or in Oregon. But a correct Map of New Mexico, showing for the first time the true course of the Rio del Norte and of its tributaries, has been prepared for the War Department by Lieut. Emory, the

distinguished Topographical Engineer who was attached to General Kearney's expedition.

Of this we hope to have a copy, after it shall have been laid before Congress; and this will be accompanied by an abstract of his astronomical observations, and the geographical position of numerous places. He has specially requested me to state that the position of Fort Leavenworth, with which his map is connected, was ascertained by the late Mr. Nicollet.

In the meanwhile we have been favored with a copy of the map itself, prepared by Lieutenants J. W. Abert and W. G. Peck, U. S. T. E., stated to be from the unpublished Map of Lieut. Emory, except the latitude of Taos by Lieut. Warner. The astronomical observations of Lieut. Emory, when attached to Gen. Kearney's expedition, from the Rio del Norte to California, will be mentioned in the sequel.

SECTION II.

TOPOGRAPHY.

A dense forest covered, with few exceptions, the whole country from the Atlantic to the Mississippi. There are some tracts of small extent among the valleys of the main chain of the Alleghany, which are destitute of timber and known by the name of Glades. South of the Ohio a larger tract of country is found, known by the designation of Kentucky Barrens, which term means only "destitute of trees." But it is towards the north-west, and in the vicinity of the Great Lakes, that prairies without trees begin to appear, increasing progressively as you advance further west. The same process continues about four hundred miles west of the Mississippi, beyond which the whole country north of lat. 40° – 41° becomes an open prairie, which, excepting a few, principally cotton-wood (*Populus Angulosa*, Michaud), growing along the banks of the river, is altogether destitute of trees. These are the vast open

prairies traversed by the emigrants to Oregon; to the cultivation of which the want of timber, the rigidity of the climate, and the general sterility of the soil, present most serious obstacles. Towards the south the line of separation—west of which the whole country becomes also a prairie destitute of trees—may not be traced with precision. Its general course is nearly from north to south, probably between the 97th and 99th degrees of longitude west of the meridian of Greenwich.

Along that line lies a tract of country, varying in breadth from ten to thirty miles, and extending at least from lat. 32° to 36° , called the Falling Timbers. This is an elevated, broken, wooded tract, and appears to be an important division line with respect to topography and soil. The whole country between this line and the Sierra Nevada of California, extending west of the Rio del Norte, as far south perhaps as latitude 25° , is decidedly most inferior, both in the extent and quality of its soil fit for cultivation, to the country east of that line; and it is also distinguished by various characteristics unknown eastwardly.

I. I know no water-course east of the Mississippi, nor indeed in any part of the country drained by that river, which has not an issue to the ocean. If there be any exception, which is very improbable, it must be: westwardly, on some water-courses south of the river Arkansas; eastwardly, in some of the ponds of Massachusetts, New Hampshire, or Maine. The general character of this last region is, that the rivers have generally their source in a pond or lake; and, if any internal basin is to be found in that quarter, it is at least certain that none terminates in a salt lake.

On the contrary, in the western section now under consideration, a number of interior basins are found, the water-courses of which have no issue to the sea, being either lost in the sands, or terminating in a salt lake. The most remarkable and best known of these are the Bolsom of

Mapimi, extending from longitude 102° to 105° , and from about latitude 27° to 29° , and the great California desert.

Of the first we have no special description, save only of its worthlessness, and that it is infested by some of the wild tribes, Cumanches, or Apaches. When Lieutenant (since General) Pike was brought, under a Mexican escort, from Chihuahua to San Antonio de Bexar, they did not attempt to cross that basin, but took a circuitous route, passing south of it. Nor did Colonel Doniphan, in his most extraordinary march, attempt to cross either that basin or the more northerly desert of the same character, which separates the Rio Nueces and Corpus Christi westwardly from Chihuahua, and southwardly from the Spanish settlements on both banks of the Rio del Norte. Several other basins of a similar character are known in various places, one in New Mexico, between the Rio del Norte and the great prairies east of it. Many are laid down on the maps, among these some in Sonora, one of which, north of Guyames, is made to extend north-easterly to latitude 32° .

The great interior basin, or desert of California, is bounded on the west by the Sierra Nevada, and on the east by the basin of the Colorado of the West. Its northern boundary is believed to be between the 41st and 42d degrees of latitude. It extends southerly to the bottom of the Gulf of California, and probably about 100 miles farther south along both shores of that gulf. Its length, from near the mouth of the Great Colorado to the most northerly bend of the Bear River, exceeds ten degrees of latitude. Along its northern boundary, in about lat. 42° , it extends from long. 112° to 120 . According to the Map published by Colonel Frémont, it extends, towards the west, much further north than the limit above mentioned. According to our present information, this vast sand desert appears to contain about two hundred thousand square miles.

The first person who, within my knowledge, gave any correct information on this extensive tract of country, was

J. S. Smith, one of the first and most energetic pioneers of the West. In the year 1826, departing from Eutaw Lake, he reached Ashley's Lake and River (called Sevier's in Frémont's map), which he ascended to its source; and thence pursuing his southerly course near the edge of the desert, he struck that western tributary of the Rio Colorado, known by the name of Rio Virgin, but which he called Adams's River. Descending this to its mouth, he crossed the Colorado, and descended along its left bank to about lat. 35° , where, whilst recrossing it, ten of his men were killed by the Muchaba Indians. Turning thence westwardly, he entered the desert in about long. 114° , and in about long. 118° reached the western source of a river which, passing near San Bernardino and St. Gabriel, empties into the Pacific.

The ensuing year, he travelled along the Missions of California to San Francisco and the Rio Sacramento, which he calls Buenaventura. He then ascended the Joachim River and one of its longest western tributaries, which he calls Appelaminy. From its most north-westerly source, which he places between lats. 38° and 39° and between 120° and 121° longitude, he crossed the Sierra Nevada, which he calls Mt. Joseph, and thence steering a north-easterly course nearly four hundred miles across the desert, he reached the south-western extremity of the great Salt Lake, and, following its southern and eastern banks, returned by the usual route to the upper portion of Lewis's River.

J. S. Smith was no writer. We have nothing from him but the track of his routes, and a few scattered notes, incorporated in a manuscript Map prepared under the direction of the late General Ashley, Charles de Ward draughtsman, 1831. In his principal note he describes the "great sandy plain," as he calls it, in the following words: "This plain is a waste of sand; a few detached mountains, some of which rise to the region of perpetual snow; from these flow small streams that are soon lost in the sand. A

solitary antelope or black-tailed deer may sometimes be seen. A few wild Indians are scattered over the plain, the most miserable objects in creation." J. S. Smith, not long after, having engaged in the Santa Fé trade, was killed in June, 1831, on the banks of the Cimarron River, by a party of Cumanches.

But the great explorer of the California Desert is Captain (now Colonel) Frémont, who, having all the scientific acquirements which Smith wanted, supplied with proper instruments, and acting under the auspices of government, has, if I may use the expression, circumnavigated the desert, and penetrated in various ways through its interior. His Map, already published, exhibits with precision its eastern and western boundaries. This would be the proper place to insert a succinct account of such of his discoveries as have already been published. But it has been deemed proper to reserve, for a separate article of this volume, the communications expected from that gentleman, and which will embrace an account of all his explorations made subsequent to his former publication. In the meanwhile, Major Thomas Swords has kindly supplied me with the substance of the information he collected whilst crossing the desert, on the return of General Kearney from California. He observes, however, that the hurried march precluded the possibility of making observations.

On the route pursued by the party, the last settlements in California are on Bear Creek, forty miles from a fork of the Rio Sacramento, and near Sutter's settlement. Thence, crossing the Sierra Nevada, and ninety two miles from Bear Creek, the party reached a stream in the desert without issue to the ocean, called Truckey, or Salmon-Trout River, and followed its northwardly course ninety miles. Thence, a desert forty-five miles in length was crossed, to the place where St. Mary's River is lost in the sand. They ascended that river northwardly 265 miles, and its north fork 28 miles farther; whence, crossing a desert of

80 miles, they reached the sources of Goose Creek, which falls into Lewis's River, the great southern branch of the Columbia. The distances thence were about 140 miles to Fort Hall; then eastwardly 180 miles to the sources of the Great Colorado, and 70 miles to the Gap in the main dividing ridge, called the South Pass. Grass of luxuriant growth was found in many places on the banks of St. Mary's River, and also along some streams, or rather small spring branches, in the valleys of the mountains bordering the river. These small streams are lost in the sand before reaching the river. And wherever grass was found, it was in places where the ground appeared to have been covered by the rising of the stream, from the melting of the snow on the mountains. It appears therefore that irrigation is necessary for the purpose of rendering the ground adjacent to the river fit for cultivation; but that, through that process, it may not be impossible to form some settlements along the course of the river; which would greatly facilitate the intercourse between the upper waters of either the river Platte, the Missouri, or the Columbia, with California. Some other observations communicated by Major Swords will be found in the sequel.

II. Another striking characteristic of this western region is, the phenomenon of rivers falling into deep and often impenetrable ravines, hemmed in by perpendicular cliffs several hundred feet high. These ravines, called *cannons*, are very numerous, and some have been specially described.

Castenada, in his account of Coronado's expedition, in 1540-1542, to Cibola and New Mexico, mentions one, on an upper branch of the Rio Colorado, into which, after descending with great danger several hundred feet along almost perpendicular cliffs, the Spaniards were unable to penetrate.

Mr. Gregg's graphic and instructive work is the only one which gives full and satisfactory information of the character of the prairies, between the western boundary of

the States of Arkansas and Missouri, and New Mexico. It is also the best account of New Mexico itself, and his Map is likewise the most correct as yet published. He has described one of these cannons, which occurs on a branch of the south fork of the Canadian River. The course of this fork or branch, ascending it from its mouth, is east and west; but, in about longitude 104° , its course, still ascending it, is from south to north; and it is there called Rio Colorado; a name which has caused some confusion, inasmuch as this river was at first mistaken for the Red River of the Mississippi. It is in long. $104^{\circ} 20'$, lat. $35^{\circ} 30'$ to $36^{\circ} 20'$, that this cannon is laid down in Mr. Gregg's Map. The river sinks there into an impenetrable ravine fifty miles in length, and, as estimated but not ascertained, 1500 feet deep. Whatever this depth may be, the cannon is impassable; and the roads, from the State of Missouri to Santa Fé, accordingly cross the river either above or below it.

Lieut. Emory, U. S. Topog. Eng. (now Lieut. Col.), has also informed me that, near the parallel of $31^{\circ} 30'$, the Rio del Norte cuts through the mountains in a deep and impassable cannon. There are others equally deep and impenetrable in some elevated arid plains. Finally, ravines of the same character, but less deep, and which are accessible, are found throughout the great prairies, and especially in those traversed and described by Mr. Gregg.

III. Arid elevated level plains occur, either destitute of water, or where the water-courses are imbedded even to the depth of 1500 feet. The most remarkable is the *Llano Estocado*, the Staked Plain, so called because at a former period a road had been traced through it, as the shortest route from Santa Fé to Texas. And in order to guide the travellers, so that they should pass by the few insulated spots where water could be had, stakes were planted from distance to distance. The western boundary of this tableland extends from lat. 35° , long. 104° , in a line near and parallel to the Rio Pecos, to lat. 32° , long. 102° , where it

terminates in a point. Its northern boundary from the first above mentioned point, extends eastwardly in a course nearly parallel to that of the main Canadian River, to lat. $35\frac{1}{2}^{\circ}$, long. $102\frac{1}{2}^{\circ}$. Its western boundary is irregular, and is penetrated by the sources of the various branches of the Red River of Mississippi, and perhaps by those of some of the Texian Rivers; all of which are sunk at the prodigious depth above stated. Its contents are estimated by Mr. Gregg at thirty thousand square miles.

It was in that inhospitable desert, that the Texian expedition against New Mexico became entangled, and suffered incredible hardships from the want of water and of means of subsistence.

There are several tracts of a similar character in various other places. Mr. Soublette found no water courses, when traversing, in the year 1829, the country from St. Vrain's Fort, on the south branch of the River Platte, lat. 40° , long. 105° , to the River Arkansa, in lat. 38° , long. 103° . At no great distance, and south of the last mentioned river, the country on the Cimarron, lying between longitude 101° to 104° , and called "the Three Springs tract," is also generally destitute of water.

Farther south, I must refer for a description of the country lying between the Cross Timbers and New Mexico, to Major Long's Account and to Mr. Gregg's Prairies. The water-courses, generally branches of the Canadian River, are impregnated with salt and hardly drinkable; and the country is described as being in every respect most uninviting and unfit for cultivation.

It appears clearly from the preceding observations that, north of about latitude 30° , between the 99th degree of west longitude and the Sierra Nevada of California, the country drained by the Great Rio Colorado of the West is the only considerable tract which remains unoccupied by any but Indian tribes. This is very extensive, containing probably 240,000 square miles. But the interior is almost

altogether unknown to us. It is represented as being very mountainous; the buffalo range is said not to extend south of the 40th degree of latitude; and the reports respecting the proportion of land fit for cultivation are unfavorable.

The country bordering on the Rio Gila, near the southern boundary of that vast district, is the only portion of which we have a correct description; and this extends not much farther than a delineation of the course of that river. It is derived exclusively from the late expedition of General Kearney from New Mexico to California.

I applied to the General for some information on the subject. He took a very courteous notice of my application, and referred this part of my inquiries to Lieutenant W. H. Emory, the U. S. Topographical Engineer attached to the expedition. This distinguished officer has favored me with most interesting communications, the substance of which will now be stated. He has, however, requested me to observe, that the expedition was purely military, that his official duties were in reference to that object, and that, traversing the country with as much rapidity as possible, the information he was able to collect was, with the exception of his astronomical observations, meagre and superficial.

The site of the last camp on the Rio del Norte, where Lieut. Emory made astronomical observations, was on the 14th October, 1846, in latitude $33^{\circ} 20'$, longitude $107^{\circ} 13'$. After this the party continued their march southerly, down the right bank of the river, which they left on the 15th, in estimated latitude $33^{\circ} 10'$, and opposite the middle of the Deadman's Journey. Thence they marched westward, and on the 18th reached the place called "The Copper Mines," situated not far from the dividing ridge, here called Sierra Membres. The barometers indicated, on the highest point of the mountain where they crossed it, an elevation of 6000 feet above the level of the sea. This mountain is said to terminate abruptly near

latitude 32° . Colonel Cook, who shortly after brought another battalion to California, left the Rio del Norte in that latitude, a short distance above El Paso, and travelling westwardly, nearly along that parallel, brought his troops and *wagons* to the Rio Colorado without any difficulty. I presume that his course was south of and very near the mountains or ridge, which separate the waters of the Gila from the rivers which fall directly into the Gulf of California.

From "the Copper Mines," General Kearney's party proceeded westwardly, and reached the main branch of the Rio Gila on the 20th. From this spot astronomical observations were made daily, whenever the weather permitted. The party following the course of this river reached its mouth on the 22d of November. An observation was made on a spot about a mile and a half south of it, lat. $32^{\circ} 42'$, long. $114^{\circ} 37'$. Thence descending the Colorado along its left bank about ten miles below the mouth of the Gila, and crossing it in that place, they descended on its right bank about thirty miles farther. There they turned off westwardly, and crossed the desert. With these data, Lieut. Emory thinks that the mouth of the Colorado may be placed on the parallel of $31^{\circ} 51'$, which is the latitude given it by Lieut. Hardy of the British Royal Navy. From the Rio Colorado to San Diego, on the Pacific, the observations were continued. The latitude of this place is $32^{\circ} 45'$, and its longitude $117^{\circ} 11'$, as determined by Sir Edward Belcher, Captain in the British Royal Navy.

No astronomical observations are known to have ever before been made along that line, except that of Lieut. Hardy, and those of Dr. Coulter at the mouth of the Gila, which have not yet been published.

The observations were made with a $10\frac{1}{2}$ inch sextant of the celebrated Gambey of Paris. In most cases, the determination of the places in latitude is the mean of the results obtained by many observations, on north and south

stars of nearly equal altitudes, by which the errors of eccentricity, etc., in the instrument were avoided.

The longitudes are derived from a combination of the results derived from the chronometers, and those obtained by measurement of distances between the moon and stars nearly equidistant on either side of it.

The chronometers used were two very good box chronometers by Parkinson and Frodsham (Nos. 783 and 2075). The observations themselves, including those between Santa Fe and Fort Leavenworth (our point of departure), in number 2500 or 3000, were all computed in the field, and are now undergoing verification by Professor Hubbard, a very accurate young computer attached to the Observatory at Washington.

The Sierra Membres falls towards the Rio Gila by a very gentle descent. Thence no tributary of the Gila, save a very small one, was crossed before the party struck the main branch of that river. From that point its apparent course, ascending it, is north-east; and all the tributaries of that river, which were subsequently crossed, came apparently from the same quarter. The most and only important of these is the Rio Salinas, which falls into the Gila in long. about $112^{\circ} 10'$, a little north-west of the observation taken on the 12th of November. According to the Indian accounts, its sources would appear to be in the Sierra Membres, at a considerable distance north-east from its mouth.

Most of the other tributaries of the Gila, which come from the north, are at their mouth insignificant in size; and some may be stepped across. But Lieut. Emory adds that, in this whole region, no legitimate inference can be drawn of the size of a river, throughout its course, from that at any one point. It may be large near its source, and, after traversing deserts of sand, through arid districts unwatered by rains, become very small, and even disappear altogether. Except the Salinas, of which oral accounts were obtained,

nothing can be inferred of the magnitude of these tributaries, from their appearance at the junction. In the vicinity of the observation made on the 24th of October, longitude $109^{\circ} 22'$, the mountains were so precipitous and bold, that no conjecture could be formed concerning the course of the tributaries that fell near that quarter into the Gila. It is believed that none but very insignificant streams fall into the river from the south.

I am not prepared to speak positively of the soil and products of Upper California. Bounded eastwardly by the Sierra Nevada, the land which may be cultivated is the belt lying between that chain and the sea-shore. Its breadth in lat. 40° is about 120 miles. In latitude 32° - 33° it does not exceed a few miles. From the 32^{d} to the 42^{d} degrees of latitude the country, west of the Sierra Nevada or Californian chain, may be computed at about 80,000 square miles.

All the preceding observations are purely topographical; but the great and marked characteristics which distinguish that half of the continent lying west of a nearly meridian line (long. 97° to 99°) about 400 miles beyond the Mississippi, not omitting the volcanic character of the region near the sources of the Great Colorado and of Lewis's River, seem to indicate a difference between the geological systems of the eastern and western divisions.

In the meanwhile, it is most certain that the eastern division, which belongs entirely to the United States, and particularly the portion of the basin of the Mississippi within that limit, is, both as regards the proportionate extent of land fit for cultivation and the fertility of the soil, not surpassed, if equalled, by any other territory of the same extent on the face of the globe. On the other hand, the western division is, in both respects, one of the most worthless tracts of country of the same extent, to be found any where within the same latitudes.

SECTION III.

INDIAN MEANS OF SUBSISTENCE.

The climate and the topographical features of the country, of which we have attempted to give a sketch, together with the various species of animals and of vegetable natural products, are the necessary primary cause of the different means of subsistence of the Indian nations. But the first general division is that of the nations whose food consisted exclusively of natural products, and of those where agriculture had penetrated. The agricultural nations consisted of two distinct classes: those which derived their means of subsistence exclusively or almost exclusively from cultivation; and those which had only a more or less extensive partial agriculture.

North of the tropics, the only tract of country belonging to the first class is that which includes New Mexico and a portion of the basin of the great Colorado of the West. This phenomenon deserves special notice, and will be treated at large by itself.

Agriculture had partially extended on the rivers that empty themselves into the Gulf of California, from the northern boundary of the semi-civilized nations of Mexico to Culiacan, and thence to the ridge which divides those rivers from the Rio Gila. With this exception, and that already stated of the basin of the Colorado of the West, there was no cultivation west of the Stony Mountains.

The limits of a more or less extensive agriculture were generally, and with few exceptions, as follows:

Eastwardly, the Kennebee, or at most the Penobscot River.

Northwardly, the River St. Lawrence and the great Lakes. But the Iroquois nations in some instances extended the cultivation north of these; and there was none in a

portion of the country, south of the St. Lawrence, occupied by Algonquin tribes.

Westwardly, we must distinguish between the countries respectively east or west of the Mississippi.

East of the Mississippi, within the eastern and northern limits above stated, and with the exception of the northern portion of Wisconsin, all the Indian nations were more or less agriculturists. Among these, the southern Indians, the Iroquois tribes, and some portion at least of those of New England held the first rank. It seems probable that, inasmuch as game had almost entirely disappeared in the Chocta country, that nation must have depended on cultivation in a greater degree than any other. But, for their food, all the Indians east of the Mississippi, principally towards the north, depended in a great degree on the chase; and they may be considered as having been still in what has been called the hunter state.

Their game consisted principally of animals belonging to the deer, stag, and elk family. To these must be added, as subsidiary, bears, beaver, several smaller animals, and occasionally buffaloes, which had migrated from the western prairies to the forest-land east of the Mississippi. Along the sea-shore and on some rivers, also in the interior on the lakes, and in some straits, fish must be added to their animal food, and had a tendency in some quarters to increase the population. Their native uncultivated vegetable food was very limited, consisting of berries, perhaps some roots, nuts, and occasionally acorns.

I have on other occasions shown, and I must repeat that, whenever a partial agriculture was not sufficient to feed the whole population, this could thereby be increased only to a limited extent. The general result is that, if the agriculture is sufficient to feed only one-half, two-thirds, three-fourths, etc., of the whole population, the original population can only respectively be doubled, trebled, quadrupled, etc., by that partial agriculture. Thus, if a given

tract of country afforded annually, without the aid of cultivation, no more game and other natural products than was necessary to feed 5000 souls; and if a partial agriculture was introduced, sufficient only to feed one-half of the whole population, this could never increase beyond 10,000 souls. For if the number had amounted to 11,000, since the agricultural labor could only feed 5,500, admitting that the natural products still supported 5,000, 500 must have been left without food, and the population soon be reduced again to 10,000. It is therefore a demonstrated fact, that it is only when agriculture affords an annual supply of food at least sufficient for affording means of subsistence to the whole population, that this may increase indefinitely, till the greatest possible quantity of food which agriculture can produce within the limits of the territory has been attained.

West of the Mississippi there was little or no agriculture north of the 41st degree of latitude, or west of longitude 97° west of Greenwich. The Sacs and Foxes, the greatest cultivators in that quarter, were an Algonquin tribe which had but lately moved beyond the Mississippi. Next to these the Osages and other Southern Sioux were the principal cultivating tribes. It was said of the Pawnees that they raised no more maize than was necessary to whiten their broth.

Some stationary agricultural villages were found much farther north, in latitude 46° and 47°, on the banks of the Missouri, to wit: the Ricaras, who are a branch of the Pawnees, and the Mandans and stationary Minetares, who belong to the family of the Upsarokas. Most of the Indians of the Red River, of the Mississippi, or inhabiting the country drained by the rivers which empty into the Gulf of Mexico from the Mississippi to the Rio Nueces, excepting those along the sea shore, had a partial agriculture. Yet it appears that the Comanches, a most wild tribe, are still in possession of a part of the country towards the sources of those rivers.

There is a general characteristic, which applies without

a single exception to all the American nations north of the tropics, where there was any agriculture whatever. Whether on the eastern shores of the Gulf of California, or in the basin of the Colorado of the West, and in New Mexico, or whether east or west of the Mississippi, cultivation was uniformly confined to the same plants, viz.: maize, beans (frijoles), and pumpkins; all of which were also cultivated in Mexico. As the maize, at least, was certainly a native of the country between the tropics, it follows that all the agriculture of the northern parts of the continent originated in the south, and was thence transferred northwardly. It can hardly be doubted that it was imported directly into New Mexico and the countries west of it. Whether it was introduced in the same manner into the country east of the Mississippi or lying on its western tributaries, or whether it was transferred through the intermediary of the West India Islands, is a debateable and perhaps insoluble question.

Another general fact finds also its place here. Not a single one of the *cereales* of the other hemisphere, whether Asiatic, European, or African, was a native of America. On the other hand, the maize, the only cultivated *cereale* of America, and the great basis of its agriculture, belongs exclusively to this continent, and was not, before its discovery, known in the other hemisphere. Whence we may safely conclude that American agriculture had its origin in America.

The plant vulgarly called wild rice or wild oats (*Zizania aquatica*, Linn.) may also be considered as an American *cereale*. It is an aquatic plant not cultivated; and the special northern district, where it grows of sufficient size to be used as food, is of very limited extent.

The agricultural tribes west of the Mississippi, including those belonging to the southern branch of the Sioux family, and the Pawnees who bordered on what is called the Buffalo Range, were also buffalo hunters, and derived perhaps

the greater part of their food from that source. The vast prairies, between the Mississippi and the Stony Mountains, are the native country of the buffaloes; whose innumerable herds, east of the valley of the Rio del Norte, traverse the plains from near the 50th to the 31st degree of latitude. Into that valley they cannot penetrate, being always arrested by high mountains. The extent of their range thus assists in determining the topographical character of the country. The Rio Colorado of the West has its source in about 43° lat.; and the buffaloes have there entered and descended it some distance; but their range down the river is said not to extend farther south than about lat. 40°.

The Northern Sioux, and all the other Nomade tribes of the prairies, or bordering thereon, live exclusively on their flesh; whilst the skins supply them with clothing, dwellings, and almost all their wants.

Colonies of the buffaloes had traversed the Mississippi, and were at one time abundant in the forest country between the Lakes and the Tennessee River, south of which I do not believe they were ever seen. The name of Buffalo Creek, between Pittsburg and Wheeling, proves that they had spread thus far eastwardly, when that country was first visited by the Anglo-Americans. In my time (1784–1785) they were abundant on the southern side of the Ohio, between the Great and the Little Kenahwa. I have during eight months lived principally on their flesh. The American settlements have of course destroyed them; and not one is now seen east of the Mississippi. They had also at a former period penetrated east of the Alleghany Mountains. But I had been mistaken in supposing that they were to be seen only on the head-waters of the Roanoke and Cape Fear Rivers. It appears by the publication of the Westover Papers, that as late as the year 1728, they were found by Col. Bird on the borders of Virginia and North Carolina, and also farther north, in what, if I am not mistaken, is now called Southampton County, in about lat. 37° and long. 77°.

The frequent name of Buffalo Creek indicates their former range. Col. Bird states that they were not seen (I presume in East Virginia) north of lat. 40° . The gap through which they passed to the Atlantic rivers is undoubtedly that of moderate elevation and gentle ascent, which divides a north-eastern source of the Roanoke from the Great Kenahwa, called there New River; and through which the state of Virginia is now attempting to open a communication from James's River to the Ohio.

North of lat. 50° the Indians are in the hunter state, deriving, however, a great portion of their subsistence from the fish afforded by the numerous lakes found in that quarter. In the farthest north, the Esquimaux may be said to live almost exclusively on the products of the sea.

West of the Stony Mountains, it will be seen by Mr. Hale's account, corroborated by all those who have visited Oregon, that the principal food of the Indians consists of roots and salmon. It is also in that region, on the Rio Sacramento, between latitudes 39° and 41° , that, for the first time in America, a tribe has been found by Mr. Dana, the distinguished naturalist of the Exploring Expedition, feeding almost exclusively on acorns, with which a species of not unpalatable bread is made.

Famine, principally among the most northern tribes, often compels the Indians to resort to certain species of nutritious moss, and even to the inner bark of some trees. Major Sands informs me, that the Indians who live on the Salmon-Trout River, within but near the western boundary of the California desert, partly subsist on a species of grasshoppers or locusts, which, when dried and pounded, are mixed with grass seeds, ground into flour, and when baked into a cake make a very palatable food. These insects are seen in immense numbers even in the heart of the desert: they are much larger than our common grasshoppers, and have very small or no wings.

It may be said, generally, that agriculture prevailed

more or less, limited only by climate, in all the forest country east of the Mississippi, and disappeared in the prairies destitute of timber.

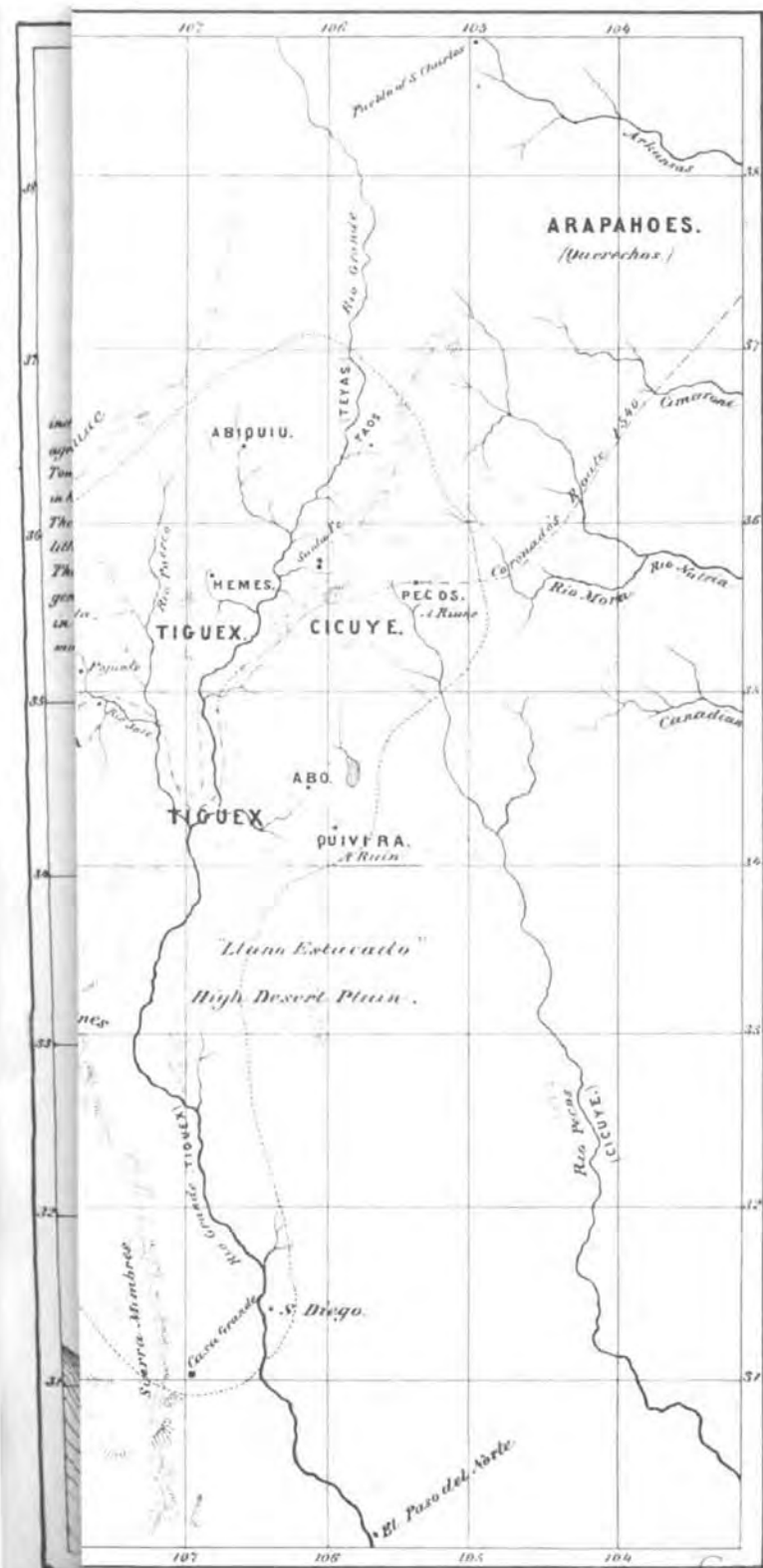
That, with the exceptions which have been stated, there was no cultivation west of the Stony Mountains; none whatever along the Pacific, from the utmost north to the southern extremity of California.

And that we may recognise three great divisions, in reference to the natural means of subsistence (other than fish) of our Indians: the Deer-hunters of the forest; the Buffalo-hunters of the prairies; and the Root-diggers of the west.

The Europeans have introduced various species of vegetable food and of domesticated animals among the agricultural Indians. But there is an European quadruped which has become an important article of food among the wild and non-cultivating tribes.

The horse is not a native of America. A great number were thrown on shore by the Spaniards in various places, and principally into Texas. Left to themselves, they have multiplied to a prodigious degree. The Indians soon appreciated their value: to possess them became an important object; and they are now disseminated throughout the continent, from the vicinity of the Mississippi to the Pacific Ocean. The wealth of the chiefs is estimated by the number they own. In a small district of Oregon, called Molele, in which the native population is almost extinct, a single chief is said to possess five hundred.

But it is not solely for his ordinary services that the horse is wanted; it has in some quarters become a most extensive article of food. It was the most abundant and cheapest that could be procured in Oregon. The first American traders in that country lived almost exclusively on it in the interior; and it was called the Columbia beef. Several of the wild tribes, between the Mississippi and New Mexico, and in other places, who live on plunder, devour



many of the horses and mules which they steal from the travelling parties.

The Indians were almost universally clothed with the skins or furs of animals. But cotton, though the natural product of the country between the tropics, was found nowhere in general use but among agricultural nations.

A complete natural history of cotton is still a desideratum. There are many varieties; but we know in the United States, and as far as I am informed, there are in fact but two distinct species, that with the black seed, which is detached from the staple, and that with the green seed, which adheres to it. The first, between the tropics a perennial shrub, is a native American species, and is believed to belong exclusively to America. The green seed is undoubtedly of Asiatic origin, was at an early date imported into the United States, either from India or the Levant, and, under the name of Virginia cotton, was cultivated in small quantities for family use. The difficult and costly hand-labor necessary for separating the seed without injuring the staple, prevented an extensive cultivation. Its rapid and prodigious increase, after the obstacle had been removed by the machinery first invented by Whitney, is well known. If this discovery has been a source of immense wealth to the United States, it has, on the other hand, prolonged slavery indefinitely.

II. ANCIENT SEMI-CIVILIZATION OF NEW MEXICO, RIO GILA, AND ITS VICINITY.

The boundary of the Mexican semi-civilization does not appear to have extended much farther north than the river Panuco on the Atlantic, and the river Santiago on the Pacific Ocean. But the unsubdued Indians in this last quarter, generally called Chichimeques by the conquerors,

did to a certain extent cultivate the soil. Nuno de Guzman had established a colony at Culiacan, two hundred computed leagues north of the City of Mexico, as early as the year 1530. It appears certain, by contemporary accounts, that some of the native tribes raised maize, beans, and pumpkins, as far as Culiacan, and northwardly a great distance beyond it. In other respects they exhibited no signs of civilization. It was much farther north, in the upper valley of the Rio del Norte from lat. 31° to 38° , and in a portion at least of the country drained by the great Rio Colorado of the West, that Indians were found who, though seven hundred miles distant from the Mexicans, and separated by wild tribes, had attained a degree of civilization, inferior indeed in most respects to that of Mexico and Guatimala, but very superior to that of any other native tribe of North America. This singular phenomenon deserves particular attention.

The only accounts of an early expedition of the Spaniards to that region, which had till lately been published, consisted (besides some very imperfect fragments in Venegas's History of California, and the relation evidently fabulous in part, of the Franciscan Monk Marcos de Niza) of some short letters from the Viceroy Mendoza to the Emperor, of some others from Vasquez Coronado, who commanded the expedition by land, and of the relation of the voyage of Fernando Alarcon to the bottom of the Gulf of California; all which were inserted in the collection of Ramusio.

We are indebted to Mr. Ternaux Compans, for a voluminous collection of original voyages to and relations concerning America, many never before published, and others long since out of print, never translated, and forgotten. One of the most interesting is, the relation of the voyage to Civola, in 1540-1542, by Coronado, written twenty years after, by Pedro de Castaneda de Nagera, one of the parties who accompanied Coronado. This had never been

published; and Mr. Ternaux Compans has, in the same volume, inserted an appendix containing all the relations and notices above mentioned, and another short relation of the voyage by a Capt. Juan Taramillo, who was an officer in the expedition.

Another volume of the collection consists of the relation of the voyage to Florida, and thence across the continent, written by D'Alvar Nuñez Cabeça de Vaca, subsequently founder and governor of the Spanish colony on the Rio de la Plata. The accounts he gave of the information he had collected gave rise to Coronado's expedition. The following abridged account is extracted from those various sources.

Nuno de Guzman, a personal enemy of Cortez, had been for a short time President of New Spain, and was afterwards Governor of New Galicia, including Culiacan. In the year 1530, he had in his service an Indian, native of Tejos (probably Texas), son of an Indian trader, who related, that his father used to trade northwardly to a country whence he brought gold and silver. He said also, that he had accompanied his father, and had seen towns as large as Mexico. There were seven of these, and to reach them it was necessary to travel forty days through a desert country.

Guzman, confiding in these accounts, collected a large army, with which he proceeded to Culiacan. The difficulties of the journey and other incidents prevented his intended expedition. The return of Cortez induced him to remain in Culiacan, which he colonized. Some years after, he was arrested and deprived of his Government. The Tejo Indian had died; and the story of the seven towns seems to have been forgotten, when an unexpected incident again turned the public attention to that subject.

Pamphilo Narvaez, the unfortunate competitor of Cortez, had acted under the orders of the Governor of Cuba, who had superseded Cortez, and appointed Narvaez in his

place. The extraordinary successes of Cortez alone justified the irregularity of his conduct. And Narvaez, who had, as usual, undertaken his Mexican expedition at his own expense, applied to the Spanish government for an indemnity. He obtained, in the year 1527, the government of Florida, that is to say, the permission to conquer it, at his expense.

He sailed that year from St. Lucar, for San Domingo; and, having wintered there, he departed with four hundred men and eighty horses, in five vessels, and landed in Florida on the 11th of April, 1528. On the first of May, he ordered his vessels to follow the coast, till they found a harbor, and there to wait for him, whilst he penetrated into the interior with three hundred men.

Proceeding in a direction parallel to the coast, he arrived at Apalache, where he remained twenty-five days, and, proceeding still westwardly, he reached, in nine days, a place called Haute. Throughout that journey, the country which he traversed was inhabited by Indians, who cultivated the soil and raised maize, beans, and pumpkins. Some were friendly, but most of them hostile, or rendered such by the conduct of the Spaniards towards them. By this time the men were exhausted and dispirited; no gold had been found, and Narvaez tried to return to his flotilla. He was near the sea-shore, which he reached on the 4th of August, and tried, in vain, to find his vessels. These must have been east of the place where he was, which is called Ochete, near Anhayca of Palache, in the Portuguese relation of the expedition of Fernaudo de Soto. It does not seem that the officer who commanded these vessels made any exertion to find the land party; and he soon returned to Havana, abandoning Narvaez and his companions to their fate.

These concluded to build some barks, and to try, steering westwardly along the coast, to reach Panuco. They converted their stirrups, spurs, and every other species of

iron which they possessed, into nails, saws, axes, and other tools. They made ropes with the bark of certain trees and with the tails and manes of their horses, and sails with their shirts. Although they had but one carpenter, they built in about six weeks five barks twenty-two cubits long. They succeeded in obtaining, chiefly by force, four hundred fanegas of maize, and eat all their horses. On the 22d of September their number was reduced to 242, who embarked in their frail vessels. They were so crowded, that they could hardly move; and the vessels were but a few inches above the water.

Still they proceeded westwardly, during about five weeks, but with the greatest difficulty, occasionally fighting with the Indians, half-starved, assailed by storms, and every day in danger of being drowned. They at last reached a very large river, the current of which was so strong that they could not enter it. Half a league from the shore, where there was no bottom at thirty fathoms, the water was fresh. This was the Mississippi. The bark commanded by Cabeça continued to navigate seven days beyond the river, when they were wrecked on an island on the 6th of November. The mouth of the Mississippi was therefore discovered on one of the two last days of October, 1528, O. S.

Farther than this they could not proceed by sea. All their barks were wrecked or lost between the Mississippi and that island. That on board of which was Narvaez was driven to sea and never heard of. The greater part of the men perished, exhausted by fatigue and starvation. The residue fell into the hands of the Indians, and almost all were either killed by them, or died from starvation or harsh treatment.

Eight years after, in the year 1536, after a series of extraordinary adventures, some of which are almost incredible, four survivors arrived at Culiacan, having thus crossed the whole continent from the Peninsula of Florida to the

Pacific Ocean. These were Cabeça himself, two other Spaniards and an Arab negro named Estevanico, a native of the coast of Barbary. The date of the year when they arrived is certain. Cabeça states, that he spent the next winter in Mexico, that he sailed the ensuing spring for Europe, and arrived at Lisbon the 15th of August, 1537. The two other Spaniards returned also to Europe, and the negro alone remained in America.

Cabeça and his companions related their adventures. The Indians, along the sea-shore west of the Mississippi, lived principally on fish and were miserably poor. But, in the interior, they found tribes cultivating maize, and others who derived their subsistence from the wild cows [buffaloes or bisons], which they saw in great numbers. And they had also heard relations of great cities, with houses four stories high, situated in the same direction which had been indicated by the Tejo Indian.

Antonio de Mendouça was at that time Viceroy of New Spain, and Vasquez Coronado Governor of New Galicia. It was not, however, till the end of the year 1538, that Mendouça took measures to have the country north of Culiacan explored. For that purpose he despatched a Franciscan monk, named Marcos de Niza, accompanied by the negro Estevanico and a number of Indians, with orders to assure the Indians, that they would henceforth be well treated, and to proceed as far north as could be done with safety.

Niza set off from Culiacan on the 7th of March, 1539, and, after having reached a village called Vocapa, he despatched the negro Estevanico to reconnoitre the country. Four days after, an Indian, sent by the negro, informed him that there was a journey of thirty days, from the place where Estevanico was, to the first town of the country called Civola. From that Indian, and, as he advanced farther north, from all the others he met with, Niza received very exaggerated accounts of the seven towns.

He proceeded as far north as the edge of the desert which lies south of Civola. There he received the account of the death of Estevanico, who had arrived at Civola, and, together with a number of the friendly Indians who accompanied him, had been killed by the people of that place. Those who had escaped were very much irritated against Niza. He was frightened; and, in order to appease them, he divided among them all the merchandize and other objects which he had brought with him.

Thus far the account of the monk is probable; and, had he only related the exaggerated accounts received from the Indians, for the correctness of which he was not responsible, no blame could have attached to him. But he added to that account a rank imposture. He pretends that he crossed the desert with two Indian chiefs, that he arrived in sight of Civola, and that it was a city more extensive than that of Mexico.

He returned, or rather fled, as fast as possible to Culiacan; whence he proceeded to Mexico, where, on the 22d of September, 1539, he gave to the Viceroy the exaggerated and fallacious relation of his journey. This relation was immediately published and widely circulated. It was adopted by subsequent compilers, by Laet amongst others, and became the popular account of Civola, and of course was considered as entirely fabulous; whilst on the other hand, the subsequent and indubitable expedition of Coronado was unknown, or forgotten, till the publication, by Mr. Ternaux Compans, of Castañeda's narrative and of other documents.

It must be observed that Castañeda, writing twenty years after, mistook the date of the expedition by one year. The true date is ascertained by the letters of Mendoza to the Emperor.

Encouraged by Niza's relation, the Viceroy collected in a few days an army of volunteer Spaniards, consisting of 150 horsemen and 200 footmen, archers or musqueteers. They

were accompanied by 800 Indians of New Spain; and they took with them 150 European cows and a large flock of sheep for food.

The army was united at Compostella under the command of Coronado, and arrived at Culiacan the next day after Easter, of the year 1540. There they rested some time, and were abundantly supplied by the inhabitants, who had that year made very large crops; so that, besides the profuse amount consumed whilst there, the army carried away more than six hundred loads of maize.

A fortnight after their arrival, Coronado, leaving the main body behind, set off with sixty horsemen, among whom were the monk Niza and the Capt. Jaramillo. In thirty days he arrived at Chichilti-calli (Chichilti house), on the edge of a desert and of a chain of mountains. They had in that journey crossed several rivers called Petatlan, Cinaloa, Taquemi, a brook where the Indians cultivated maize, beans, and pumpkins, and another brook and valley named Senora, where the cultivation was the same and the population greater. From Senora, after four days' march in a desert, and crossing a brook called Nexpa, they arrived at the foot of the mountains above mentioned. All these rivers or brooks fell into the Gulf of California, and the computed distance from Culiacan was 300 leagues.

After having crossed the mountains, travelling north-east, and crossing several rivers called by the Spaniards San Juan, Frio, and Vermejo, they arrived in thirteen days at the first village of Civola.

This village might contain two hundred warriors: the houses were small, three or four stories high, with terraces on the top; and the walls were of stone and mud. The inhabitants of the province, which is composed of seven villages in a valley six leagues long, had united in defence of the first village. They were attacked and dispersed, the village was stormed, and this was followed by the submission of the whole province.

Twenty-five leagues north-west from Civola, there was another province called Tucayan, and containing also seven towns. This province was conquered by a detachment of about twenty horsemen sent by Coronado.

Shortly after some Indians came to Civola, from the village of Cicuyé, seventy leagues distant towards the north-east. Their chief, named Bigotes by the Spaniards, offered the services and friendship of his nation; and Coronado sent the Capt. Alvarado with twenty men to accompany those Indians back. After five days' march, Alvarado arrived at a village called Acuco, built upon the top of a perpendicular rock, and which appeared impregnable. The inhabitants, however, made peace with the Spaniards, and gave them poultry and maize.

All the water-courses after crossing the mountains, and including the river of Civola, and two days' journey farther east, run towards the South Sea (into the great river Colorado of the west). Farther east they fall into the North Sea (Gulf of Mexico). It is uncertain, according to the narrative, on which of these the village of Acuco was situated.

Three days farther, Alvarado reached the province called Tiguex. He sent thence a messenger to Coronado, advising him to take his winter quarters in that district. Five days farther he reached Cicuyé, where he was well received, and returned to Tiguex, where he was soon after joined by Coronado.

The main body, which had remained at Culiacan, received orders to proceed towards Civola, and arrived in the valley of Senora [Sonora], thus called to this day. Provisions were abundant; and the army rested there for a while, waiting for further orders. A temporary colony was established in that quarter.

In the middle of October, the Captains Melchior Diaz and Juan Gallego arrived at Sonora from Civola. Melchior Diaz remained as Governor of the new town with eighty

men. Gallego returned to Mexico, taking with him the monk Marcos de Niza, whom he had brought back. For his relation had been found false in every respect; instead of the powerful nations, of the immense cities, of the gold and riches, which he had announced, nothing was found but a few miserable villages. The troops which had accompanied Coronado were enraged, and the life of Niza was not safe at Civola.

The army arrived at this place without any accident, and proceeded to Tiguex in the beginning of December. The journey lasted ten days; it snowed regularly every evening and night; and in some places the snow was three feet deep. They were clearly crossing the ridge which divides the sources of the Rio Gila, or of some other branch of the great Colorado from the upper Valley of the Rio Norte. For it was subsequently ascertained that the river of Tiguex, on the banks of which the nation of that name had twelve villages, had its source in the north-west and, at a great distance towards the south, fell into the Gulf of Mexico. This province of Tiguex lay north-east of the villages of Civola.

When the army arrived, the province had insurged; and Castañeda lays the fault entirely on the Spaniards. Coronado, deceived by some false information, had sent a party to Cicuyé, who brought as prisoners Bigotes and the Cacique of the village; and this began to alarm the Indians of Tiguex. He then required three hundred pieces of the stuffs with which the Indians were dressed; and as these were not immediately collected, his soldiers took them by force from the Indians, leaving many of them perfectly naked. Finally, a Spanish officer violated or attempted to violate a married woman. The next day the insurrection broke out. The nearest village was attacked and surrendered at the end of two days; and Lopez de Cardenas, who commanded there, ordered the prisoners to be massacred. They made some resistance, but few could escape.

The main body of the army arrived at that time: but the deep snow prevented any active operation during two months. The principal villages of Tiguex were subsequently besieged and taken. A considerable number belonging to other tribes, and situated either down the river or northwardly in various quarters, off the river and towards the mountains, surrendered without resistance. But none of the natives of the twelve villages of Tiguex, who had fled in the mountains, would return to their homes so long as the Spaniards remained in the country.

The river had been frozen during four months to such a degree, that the horses could cross on the ice. On the 5th of May, the army left Tiguex for Cicuyé, twenty-five leagues distant. Bigotes and the Cacique were set free, and the inhabitants supplied provisions abundantly. Crossing some mountains, the Spaniards arrived at a very deep river, which also passes near Cicuyé, where it was necessary to build a bridge. Proceeding toward the north-east, they reached at the end of six or seven days great plains, where for the first time they found buffaloes. These animals and their immense number, the plains with their deep ravines, and the Indians, totally different from those of Tiguex, and deriving their subsistence, clothing and dwellings from the buffalo, are all minutely described; and the description would at this day apply with perfect precision to the country, and to the roving tribes that now inhabit it. The name is, however, different; the Indians were called Querechos.

The Spaniards were then, undoubtedly, on the waters of the Canadian river. They had been deceived, though for what purpose it does not clearly appear, by an Indian guide, who had undertaken to lead them to a country called Quivira, abounding with gold and silver. Coronado concluded to proceed farther north with thirty-six men, and sent the main body back to Tiguex. He had met with another wild tribe distinct from the Querechos. They were called Teyas, and came in the plains to hunt the buffalo;

but their residence was in the valley of the Tiguex river, above the nation of that name. They were said to be late invaders who had come from the north, and they had destroyed some villages in the vicinity of Cicuye; but being repelled there, they were at that time at peace with the civilized inhabitants of the valley. They were very friendly towards the Spaniards, and supplied them with guides. The main body with their assistance returned by a shorter route to the river of Cicuye, which they struck thirty leagues lower down than the village of that name.

Coronado appears to have proceeded as far north as near the 40th degree of latitude (Juramillo), where he found Indians who, though they still hunted the buffalo, had some fixed villages; and he received also information respecting a very large river, which was thickly inhabited, and which must have been the Mississippi. Considering the advanced state of the season, the party returned to Tiguex, where the whole body spent the winter of 1541, 1542.

It had been the apparent intention of Coronado to attempt in the spring a new expedition northwardly. But he was dangerously wounded by an accidental fall; he held a large estate in New Spain, and having left there his children and a young, noble, and lovely wife, he determined to return home. According to Jaramillo the officers were generally of the same opinion; but Castenado says, that there was great dissatisfaction among the body of the men. They evacuated the country and returned to Culiacan. Coronado was ill-received by the Viceroy, and lost his reputation and his government of New Galicia.

Two Franciscan monks, Padilla and brother Louis, would remain, and kept with them a Portuguese and some Mexican Indians. Both were killed by the natives. But the Portuguese and two of the Indians escaped, returned to New Spain by a new and shorter route, and arrived at Panuco.

It seems that some zealous missionaries again found their way to the country; and about forty years after Coronado's expedition, a part of Tiguex, or of what is now called New Mexico, was occupied by a party of Spaniards under one Francisco de Leyva Bonillo. Baron de Humboldt had mentioned the conquest of New Mexico by the valiant Juan de Onate, toward the end of the 16th century, and Mr. Gregg obtained the copy of an important paper found in the archives at Santa Fe. It is a memorial of Onate (a descendant of a nobleman of that name, who in 1540 was Governor of Compostella), dated 21st of September, 1595, by which he applies to the Viceroy for permission and assistance to establish a colony on the Rio del Norte, in the region already known as New Mexico. This was granted, and appears to have been carried into effect during the following spring. The incidents of the conquest are not known to me; but it is presumed that it was effected without much resistance.

Baron de Humboldt says, that during the 17th century several Franciscan monks had established missions among the Indians of Moqui and of Nabajoa, in the country which is drained by the great Rio Colorado of the West, and that he had seen in manuscript maps of that epoch, the name of the province of Moqui.

In the year 1680 a general insurrection took place in New Mexico, and the Spaniards were massacred or expelled. The ensuing year they re-entered the country, and a war ensued which lasted ten years, and terminated in the subjugation of the Indians of that province. But the missionaries of Moqui and Nabajoa had been massacred; and those Indians have ever since remained unsubdued.

Several detached expeditions connected with that of Coronado deserve to be mentioned.

The most important is the sea voyage of Fernando Alarcon, who was sent by the Viceroy Mendoza up the gulf of California, under an expectation that he might assist

Coronado's land expedition. He sailed in May, 1540, and, after several difficulties, reached the bottom of the gulf, and ascertained that California was not an island. He entered a very large river (the Colorado) which emptied into the gulf and had a very rapid current. This he ascended near one hundred miles, with two shallops drawn with ropes, by men on shore. The country was thickly inhabited. The Indians appeared at first frightened, and disposed to interrupt the Spaniards; but Alarcon avoided all hostilities, and they were pacified, even assisted in drawing the shallops up the stream, and supplied the Spaniards abundantly with provisions. They raised maize, beans, and pumpkins, and on one occasion gave them a loaf of miziqui. They worshipped the Sun; and Alarcon persuaded them that he was his son, and forbid them to go to war. They said that, when at war, they eat the heart of their enemies, and burnt some of the prisoners. Alarcon returned to his vessels in two days and a half; the ascent had consumed fifteen and a half. He ascended the river a second time still higher up, to the vicinity of a district called Cumana. On this journey he met with several distinct tribes, and was informed that they spoke many different languages.

He also collected some information respecting Civola, the inhabitants of which were reported to be powerful, and to inhabit stone houses four stories high. A desert intervened between that district and the Indians of the Rio Colorado, the breadth of which, according to some, was only a ten days' journey; whilst, according to others, the distance was forty days. They had heard of the negro Estavanico having been killed by the people of Civola, and had some rumors of the subsequent invasion by the Spaniards under Coronado. Alarcon tried in vain to find some amongst them that would undertake the journey, and carry letters for him. He returned to his vessels, and unable to open any communication with the land expedition, he sailed back to New Spain.

Although the true geography of the gulf had been thus early ascertained, this voyage had been so much forgotten in Mexico, that, one hundred and sixty years after, it was still questionable in the beginning of the 18th century, among the Mexicans, whether California was an island or a peninsula.

In October, 1540, after the departure of the main body from Senora towards Civola, Melchior Diaz remained as Governor of Senora. Soon after he set off for the sea-coast with five-and-twenty men, in order to open a communication with the vessels. At the computed distance of one hundred and fifty leagues, he arrived at or near the mouth of the Rio Colorado, which he named Rio del Tizon, because in cold weather the Indians carried a fire-brand to warm themselves. From indications given by the Indians, he found a tree on the bank of the river, fifteen leagues from its mouth, on which was written, "Alarcon came here, and there are letters at the foot of the tree." The letters were found, in which Alarcon stated, that after having waited some time, he was returning to New Spain, and that California was not an island, but part of the main.

Diaz ascended the river five days, and then crossed it on rafts, defeating the Indians who had intended to destroy his party whilst crossing. He afterwards continued his march, along the coast, towards the south-east, wounded himself accidentally, and died. His party returned in safety to Senora.

In the same year, 1540, and after the capture of Tucayan, the Indians of that province gave information of a great river towards the north-west. Lopez de Cardenas and twelve men were immediately sent by Coronado in that direction. After twenty days' march across a desert, they arrived at the river, which was the Colorado, but far above its mouth. The river was there buried, apparently more than one thousand feet, below the table land on which the Spaniards stood, and which was so precipitous that they

found it impossible to descend to the bed of the river. The country was altogether uninviting, the water very scarce, and the weather very cold. They accordingly returned to Civola. The few Indians they met there were peaceable and friendly.

Three principal languages were spoken in the province of Culiacan. The Tahues were the most intelligent and civilized people, and neither eat human flesh, nor had human sacrifices. The Pacasas, who dwelt between the plain and the mountains, were much more barbarous, and occasionally eat human flesh. The Acaxas (probably the same as the Apaches) were in possession of a great portion of the country, including all the mountains. They were all cannibals; lived in most inaccessible spots; and their several villages quarrelled for the slightest cause, killing and devouring each other.

Twenty leagues north of Culiacan, the province of Petatlan was inhabited, by Indians similar to the Tahues, and speaking a similar dialect. Thence to the valley of Sonora, one hundred and eighty leagues distant, several villages were found inhabited by Indians of the same nation, amongst which some more barbarous tribes appear to have been interspersed. Throughout the whole distance, and as far as the desert of Civola, thorny trees prevailed; and the Indian huts were made of dry rush. The principal natural fruits were a species of figs called Tunas, and the Mezquite, which appears to be a species of honey-locust (*Gleditsia*). The fruit consists of a glutinous substance and a flattened bean pod, which were ground into flour by several of the Indian tribes: and this they baked in large loaves that might be preserved a whole year.

Sonora was the name of a river and of a valley inhabited by a numerous and intelligent population, and where maize was cultivated to a great extent. Forty leagues beyond Sonora the valley of Suya was also populous, and the inhabitants had the same language and the same

agriculture as those of Sonora. But amongst the mountains, adjacent to those two valleys, other Indians dwelt, consisting of several distinct tribes, which were not visited by Coronado's army. It appears that throughout the whole country the Indian population was at that time numerous; and that, although intermixed with more barbarous tribes, there was an almost uninterrupted continuity of agricultural nations, extending from Culiacan, on the one hand to the desert of Civola, and on the other to the great Rio Colorado of the West.

This population has almost entirely disappeared. The country alluded to is that now known by the names of Cinaloa, from Rio Rosacio to the Rio del Fuerte, and Sonora proper north of this. We are informed by Baron de Humboldt that in 1793 there were in Cinaloa but eighteen hundred tributary or subdued and cultivating Indians, and only two hundred and fifty in Sonora proper.

At some distance beyond Suya, on the edge of the mountains and of what was called the desert of Civola, there was an ancient ruin, consisting of a large roofless house constructed with red earth, and which appeared to have been formerly fortified. It was called by the Spaniards Chichilti-cal [from the Mexican word *Calli*, house], and had been long inhabited by a people that came from Civola. It was stated to have been destroyed by the natives, who formed the most barbarous nation found in those quarters. Baron de Humboldt observes that the most northerly villages of Sonora, in what is called Pimeria Alta, are separated from the Rio Gila by a region inhabited by independent Indians, whom neither the Mexican troops nor the missionaries have as yet been able to subdue (Apaches).

We now return to Cibola and to the upper valley of the Rio Norte.

The etymology of the word Civola or Cibola is not known to me. To this day, it is the name by which the Mexicans designate the buffalo or bison. It is defined in

Newman's Dictionary, "Cibolo, Cibolea; a quadruped called the Mexican bull." It seems to have had that name in Mexico before the conquest, and that a skeleton was amongst Montezuma's collection of curiosities. But there were none within eight hundred miles of the northern boundary of the Mexican civilization. At all events, the word Cibola or Civola meant "the Buffalo country;" and the name was erroneously given to the valley and villages on the sources of the Rio Gila visited by the Spaniards. The inhabitants had indeed dressed buffalo skins, but they must have been obtained from more northerly tribes; for the buffalo range does not on the Rio Colorado of the west extend far south of lat. 40°, and there are none in the upper valley of the Rio Norte, or New Mexico.

The valley in which the seven villages of Cibola were situated, was but about six leagues in length, very narrow and confined between steep mountains.

The village of Acuco lay between Cibola and Tiguex; and Castañeda enumerates fifty-six villages situated on the Rio Norte and its vicinity. Tiguex contained twelve, situated on both banks of a river, in a valley twelve leagues long and two leagues wide. The forty-two others belonged to nine or ten distinct tribes.

Castañeda estimates the aggregate population of the fourteen villages of Cibola and Tucayan at three or four thousand *men*, probably warriors; and at sixteen thousand that of the villages in the valley of the Rio Norte or the country now called New Mexico. This is equivalent to about sixty thousand souls. The population of the Parblos, or agricultural Indian villages of that province, is at this time estimated at only ten thousand. One of the smallest villages was the first that the Spaniards reached in Cibola, and which had two hundred warriors. The largest of which the population is stated, was Cicuyé, containing five hundred warriors.

It is difficult to ascertain from his narration, their rela-

tive position ; which, in reference to Tigux, appears however to have been nearly as follows :

Tigux, 12 Villages.

<i>Westwardly.</i>		<i>Northwardly.</i>	
Chia, 4 leagues west of the river,	1 village.	Quinx, or Quivix,	7 villages.
Snowy Mountains, north-west,	7 do.	Yuqueyunk, on the river, 2 }	6 do.
Hemes, 7 leagues from Tigux,	7 do.	in the mountains, 4 }	
		Braba, 20 leagues above, on the river,	1 do.
<i>North-Eastwardly.</i>		<i>Southwardly.</i>	
Ximena, between Quixia and Cienye, 3 villages.		Tutuhaco,	8 villages.
Cicuye, near river of that name,	1 do.	Uncertain.	
		Aguas Calientes,	3 do.

Braba, or Uraba, called by the Spaniards "Valladolid," the most northerly on the main river, Cicuyé, which Castañeda calls the most north-eastern, and Chia, are mentioned by Jaramillo as the most remarkable villages. But he mentions two other east of Cicuyé ; and Castañeda also says that an officer descended the main river eighty leagues below Tutuhaco, discovered four other great villages, and reached a place where the river loses itself under ground, as the Guadiana in Estremadura ; but he did not go as far as the place where, according to Indian report, the river again emerges.

The assertion that the river was lost under ground was a mistake. This was undoubtedly the place in lat. 31° 30' where the Rio Norte, cutting through the mountains, sinks into a deep and impassable cannon, from which it emerges some distance below, as has been before stated.

The whole inhabited country on the Rio Norte and its tributaries (from Braba to the lowest point visited by the Spaniards) was, according to Castañeda, 130 leagues in length, and thirty in breadth ; but this last was irregular ; and this estimate probably applied to the distance, west to east, from the Sierra Madre to Cicuyé. He estimates at seventy leagues the distance from Cibola north-eastwardly to Cicuyé. His computed leagues, compared with the known distance between Mexico and Culiacan, and thence to the southern termination of the mountains, seem to be

equivalent to about three English miles. But thence northwardly and north-eastwardly there is much uncertainty.

When the map now being prepared by Lieut. Emory shall have been published, we will be better enabled by a precise knowledge of the Rio Norte and of its tributaries, to discover the approximate ancient situation of the seven towns of Cibola. At present, and as now informed, I can only say that they certainly appear to have been near the sources of a tributary of the great Colorado and not of the Rio Norte; and that it is probable that the Spaniards in their march eastwardly struck the Rio Norte between lat. 34° and 35° . It is still more difficult to reconcile the account of their journey, from Cicuyé eastwardly to the buffalo plains, with our present knowledge of the country.

Castañeda estimates the distance at thirty leagues; and he says that, the fourth day after their departure, the Spaniards came to a very deep and large river which passes also near Cicuyé, and to which they gave that name. There they were obliged to stop in order to build a bridge, which occupied them four days. Ten days after they met with the buffalo hunters called Querechos.

Jaramillo says, that after having left Cicuyé their course was always north-eastwardly; that, after four days' journey, they found two other villages, and after three days' journey more, they came to a river, which the Spaniards called Rio Cicuique, and that five days after they arrived in the buffalo country.

The main body of the Spaniards travelled or wandered through the plains thirty-seven days, and according to Castañeda's computation 250 leagues from Tiguex. On their return, guided by the Teyos, they reached in twenty-five days, losing much time, the river of Cicuyé, more than thirty leagues below the place where the bridge had been constructed. The Teyans said that this river united with that of Tiguex twenty days' journey southwardly, and that it afterwards turned towards the east.

Having compared those several accounts with Lieut. Abert's map, and with that of Mr. Gregg, it appears to me probable, that the Tiguex country lay, not on the main Rio Norte, but on its tributary, the Rio Puerco, and its branches, and that the river which the Spaniards called Cicuyé, and over which they were obliged to build a bridge, was the main Rio Norte. It must be recollected that the southern or main branch of the Canadian River, after running upwards (from its mouth in the Arkansa River) a considerable distance westwardly, turns at right angles, its upward course being thence nearly duly north to its source. It is there called Rio Colorado; and it will be seen by recurrence to the map, that in one place it sinks into one of those deep ravines called cañons, wholly impassable, so that the roads from Saint Luis to Santa Fe, necessarily cross that river, either north or south of that cañon.

It appears probable that, when the Spaniards passed over from the Rio Norte, to the waters of the rivers that empty themselves into the Mississippi, they did cross the above mentioned branch of the Canadian River, above the said impassable cañon; and that when, on their return under the guidance of the Texans, they struck the Rio Norte (or Cicuyé) thirty leagues below the place where they had crossed it over a bridge, they must have crossed the Canadian River below the said cañon. This is corroborated by the fact that, on their return, the Spaniards took notice of a number of salt marshes, with large pieces of floating salt, which abound on all the southern branches of the Canadian River. The only other possible hypothesis is, that the River Cicuyé is identic with the Rio Pecos. The main body of the army, with which Castñaeda remained, did not cross the Arkansa River.

All the villages, whether at Cibola and its vicinity, or in Tiguex and on the waters of the Rio Norte, were constructed on the same plan. They did not consist of houses, or ranges of houses, separated by streets; but each village

was a single block of adjacent houses connected together, and in the shape of a square or parallelogram. They differed in size; but the precise length and breadth are nowhere stated. The height also varied, from two or three to seven stories. Muzaque, in Cibola, was the only one in which the houses were so elevated: generally, they had three or four stories. Inside of each village, there was a court, common to all the houses. All the roofs were on the same level, flat, and forming terraces. There were no doors or openings on the ground or lower story; but, on a level with the second story, there was a projecting balcony extending round the whole village, with doors opening into the several houses. There were no external stairs leading to the balcony: the only way to ascend was with movable ladders, which in case of an attack were taken inside. At Cicuyé the houses which opened on the internal court were higher than those facing outside. This was intended for defence; and this village was also surrounded by a low stone wall. The inhabitants asserted that they never were subdued by any other nation.

The houses were well distributed inside. There was always a kitchen, an oven, and a distinct room for breaking the maize and converting it into meal. This work was, as usual, done by the women. At a distance from the mountains they had no other fuel but dried grass, of which they collected large quantities, both for cooking and to warm themselves.

The walls of the houses of those villages were not stone, but constructed with prepared earth. According to Castañeda, "The natives have no lime, but substitute for it a mixture of ashes, earth and coal; although their houses are four stories high, the walls are only half a fathom thick. They make great heaps of rush and grass, and set these on fire; when reduced to coal and ashes, they throw over that mass a great quantity of earth and water and mix the whole together. They then knead that mixture into round

balls, which they dry and use in lieu of stones. They plaster the whole with the same mixture; so that the whole has the appearance of mason's work. This work is done by the women: the men bring wood, and do the carpenter's work." Jaramillo says, that these walls are similar to those of *Torchis*.

Under ground there were subterraneous rooms, called by the Spaniards, "*Estufas*," literally stews, and which may be translated "air-baths." In the middle of each, there was a fire sufficient to preserve the heat, which was fed with thyme or other dried grass. These places were exclusively allotted to the men. Women were forbidden to enter them, and occupied the stories above. Some of these *estufas* were round and some square. Their upper floor, which was on a level with the ground, was supported by pine pillars; they were paved with large, smooth stones; and some were as large as a tennis-court. The most extraordinary were found in the village called Braba, which in other respects was remarkable. It was built on both banks of the river, across which were bridges made with squared pine timber. The *estufas* there were supported by twelve pillars, each of which was two fathoms in circumference and two fathoms in height.

Another remarkable village was that of Acuco, between Cibola and Tiguex, which was built upon the top of a perpendicular rock. This could be ascended only by stairs cut outside in the rock. After three hundred steep steps, there remained eighteen feet in height, to climb which there was no other aid than small holes, three or four inches deep, cut in the rock. Large stones were collected on the top to be rolled over any assailant. The village, which contained only two hundred warriors, was deemed impregnable. There was a table-land on the top, sufficient to sow a certain quantity of maize, and cisterns to receive water.

All these people subsisted principally on vegetable food. Maize, beans, and pumpkins, are repeatedly mentioned as

being universally cultivated: and to these may be added occasionally the mezquite-bread. The accounts differ as to the abundance of supply. Jaramillo says that the people of Cibola hardly raised a sufficient quantity for their own use; but that those of Tucayan were better supplied. According to Castañeda, the soil of Tiguex and of other places in the valley of the Rio Norte was so fertile, that it was not necessary to plough the ground in order to sow; that the crop of one year would have been sufficient for seven; and that at the sowing time, the ground was still covered with maize of the preceding crop which they had not found necessary to carry away. But Castañeda was in Cibola and Tiguex only in winter, and appears to have been misinformed in all that relates to the cultivation of maize.

Game does not appear to have been plentiful. Yet the country was not destitute of deer; antelopes and bears are mentioned, and also ducks, partridges, and turkeys in abundance. These would seem to have been tamed, as in some instances the Indians are said to have supplied the Spaniards with poultry.

When the Spaniards, under Velasquez Coronado, penetrated, in the year 1541, into New Mexico, the articles of dress consisted universally of deer-leather, well dressed; of prepared buffalo-skins, a most comfortable garment, which resembled coarse cloth; and of cotton mantles of unequal size, but generally a vara-and-a-half long. They had also some ornamented dresses made of feathers, intermixed and wove with some kind of thread. A most extraordinary fact is repeatedly stated by Castañeda, viz., that all the women, at least all those who were unmarried, were perfectly naked, both winter and summer. The reason assigned was, that any departure from chastity should be immediately revealed.

Castañeda, speaking of Tucayan, north-west of Cibola, says that the inhabitants made a present to the Spaniards of some cotton stuffs, but in small quantity, because it is

not found in the country. Jaramillo asserts that cotton grew in New Mexico; and it appears to me that, since it is admitted on all hands that cotton mantles were universally worn, Castañeda must in that respect have been mistaken. It seems impossible that such stuffs could have been procured by trade, with the distant southern countries where cotton was cultivated; and the climate was not unsuitable for the production. The black seed species was the only one which, at that time, could have been known and cultivated on the river Gila, and in the valley of the Rio Norte. Transplanted into some islands on the coast of Georgia, it has become an annual plant, and produces the finest known cotton. It has been planted farther north, and even in Virginia, where, though some cotton came to maturity, the quantity was too small to render the cultivation profitable. This fact shows that this species might, between latitude 32° and 38° , be cultivated in the country drained by the Colorado of the West and in New Mexico. But it is not probable that the plant grew there spontaneously. All the agricultural products in that quarter, and indeed every where else in the northern parts of the Continent, had originally come from the south.

Bows and arrows, clubs and bucklers, appear to have been their war-weapons. No mention is made of any aratory tool. Pottery was made, which is represented as very fine, and well varnished; and ornamented vases are mentioned, of which the work and the form were remarkable. Jars were found filled with what appeared to be a shining metal, and which was used to varnish that pottery.

The inhabitants are represented as being very sensible, intelligent, and industrious; there was amongst them neither drunkenness, stealing, or unnatural sin; they were not cruel, never eat human flesh, and made no human sacrifice. Castañeda is silent with respect to their religion, and leaves us ignorant of the objects of their worship. They had chiefs, called Caciques by the Spaniards, and some renowned war-

riors; but they were generally governed by a council of old men.

It is evident, from the structure of their villages, that they were always exposed to attacks, either from their own neighbors, or from the adjacent wild tribes. It does not appear that, during the stay of the Spaniards, they had any war amongst themselves: but some of the larger villages are said to have been formidable to their neighbors; and the inhabitants of the impregnable Acuco are called *banditti*, much feared through the whole province. With respect to foreign invaders, the destruction of Chichilti, a colony from Cibola, by the wild mountain tribes, has already been stated. The north-eastern part of the country, in the vicinity of Cicuyé, was that which had been most exposed to foreign invaders from the north. Some ruined villages were found which had been destroyed by them. The last of these invaders, and with whom the Spaniards came in contact, were the Teyans, a nomade people, who in summer hunted the buffalo in the prairies, and in winter dwelt adjacent to the northern agricultural villages, which, though at that time at peace, they were not permitted to enter. They cultivated nothing, and were considered as much more brave than their civilized neighbors. With the Spaniards they entertained the most friendly relations, and supplied them, whenever requested, with faithful guides.

The province of Tiguex was the only one that made any serious resistance to the Spanish invaders. Coronado, with his vanguard of seventy men, subdued in a few days, the fourteen fortified villages of Cibola and Tucayan, with their four thousand warriors. The terror inspired by the superlative bravery of the Spaniards of that epoch, by their fire-arms, and above all by their horses, had every where the same effect. The Azteques indeed, the most warlike and ferocious of the Indian nations, made a most vigorous resistance, and displayed unsurpassed bravery in the long and sanguinary contest which terminated in the destruc-

tion of their capital. With that exception and that of Chili, wherever the Indians had become cultivators of the soil, and so numerous as to depend exclusively on agriculture for their subsistence, the conquest was effected by a handful of men, almost at once, and without hardly any serious contest. The wild tribes in the hunter state, who cultivate nothing, alone proved indomitable, yielding only to the gradual but irresistible progress of agricultural colonization, and ultimately rather annihilated than conquered.

There are some incongruities and even contradictions in Castañeda's narrative; but they are only such as might be expected from a man who wrote twenty years after the events he relates, from recollection, and probably without having taken any notes. These defects refer principally to dates or unimportant details. He is often obscure in his geographical statements; but it is at all times difficult to describe the geographical features of a country, without the aid of a map; and moreover Castañeda was not a geographer. The work, as a whole, affords conclusive internal evidence of the veracity of the author. He never deceives voluntarily, and is generally free of the exaggeration so common to the Spanish writers of that age. The general features of the expedition are indubitable. No one, writing at that time in Mexico, could have divined that, in pursuing the course described in the narrative, the Spaniards would arrive in the plains occupied by the buffalo. No one but an eye-witness could have described, with the same minuteness, these animals, heard of, but never seen before the date of the expedition, the features of the country in which they ranged, and the manners of its wild inhabitants. Thus, after having described those immense plains, apparently perfectly level, Castañeda adds: "Trees are seen only in some ravines, at the bottom of which runs a small river; but these are discovered suddenly, and only when coming on the brink of the precipice. A descent is found through paths opened by the buffaloes in search of

water. An immense quantity of small animals are found in the plains, similar to squirrels, who have dug numerous holes under ground." The prairie dogs, so called, are here recognised; and when the main body, on its return to Tiguex, was crossing the various branches of the Canadian River, the salt marshes and waters, with floating pieces of salt, are mentioned.

Much additional light has been thrown on the subject, and the correctness of Castañeda's statements corroborated, by an author who was unacquainted with his work, and who, though he had heard of a traditional account of such an expedition, considered it as doubtful, and hardly probable. This is Mr. Gregg, who, in his very correct and instructive work entitled, "Commerce of the Prairies," has given the best account, not only of these, but of New Mexico, which has, as yet, been published. The following extracts of the principal passages which relate to our subject are striking:

The remnant of the aboriginal tribes of New Mexico, still dwelling in that province, live in distinct villages, called Pueblos. They are a remarkably sober and industrious race, conspicuous for morality and honesty.

Their dwelling-houses contain seldom more than two or three small apartments, but are frequently two stories high, and sometimes more. There is, most generally, no direct communication between the street and the lower rooms, into which they descend by a trap-door from the upper story, the latter being accessible only by means of movable ladders.

Each Pueblo is under the control of a Cacique, chosen amongst themselves. When any public business is to be transacted, he collects the principal chiefs in an *estufa*, or cell, usually under ground, where the subjects of debate are discussed and settled. Mr. Gregg was told that when they return from their belligerent expeditions, they always visit their council cell first. Here they dance and carouse, frequently for two days, before seeing their families. The

council has charge of the interior police, and keeps a strict eye over the young men and women of the village; and the females are almost universally noted for their chastity and modest deportment.

Some of the villages were built upon rocky eminences, almost inaccessible. The ruins of San Felipe may be seen on the very verge of a precipice several hundred feet high, the base of which is washed by the Rio del Norte. The still existing Pueblo of Acoma stands upon an isolated mound, whose area is occupied by the village, being fringed all around by a precipitous cliff. The inhabitants enter the village by means of ladders, and by steps cut into the solid rock [Acuco].

There still exists a Pueblo of Taos, composed of two edifices, one on each side of a creek, and formerly communicating by a bridge. The base story, near four hundred feet long and one hundred and fifty wide, is divided into numerous apartments, upon which other tiers of rooms are built to the height of six or eight stories. The outer rooms are entered through trap-doors in the roofs. A spacious hall in the centre, known as the *estufa*, is reserved for their secret councils. These two buildings afford habitations, it is said, for over six hundred souls [probably Braba]. An edifice of the same class is found in the Pueblo of Picuris.

Wheat is now cultivated; but Indian corn, variously dressed—generally converted into tortillas, or into a thin mush, called *atole*, together with beans [called frijoles, by the Spanish], continue to be the principal articles of the food of the Indians. The flour made from the fruit of the mezquite tree is also mentioned. Cotton is cultivated to no extent, although it has always been considered as indigenous to the country, and especially so in this province.

Mr. Gregg says that the potato, although not cultivated in the country till very lately, is unquestionably an indigenous plant, being still found in a state of nature in many of the mountain valleys, though of small size, seldom larger than filberts.

He reckons three or four different languages, perhaps allied to each other. The most northern, Taos, Picuris, etc., speak the *Piro* language. A large portion of the others speak *Tegua*, having all been originally known by this general name, though some among them seem formerly to have been distinguished as *Queres*. The numerous tribes that inhabited the highlands between the Rio del Norte and Pecos, as those of Pecos, Cienega, etc., now extinct, were known anciently as Tagnos; but their language is said to be spoken by those of Jemez.

Tegua is evidently identic with Tiguex; and Jemez with Hemez. We recognise the Teyans in Taos. The name of *Queres* may be the Quivix or Quirix of Castañeda. I cannot discover in Mr. Gregg's map any other of the ancient names mentioned by Castañeda. The few that have been preserved would alone be sufficient to prove the identity of the former and present inhabitants. The manufacture of pottery is continued, and in general use, even amongst the Spaniards.

The only discrepancy between Castañeda and Mr. Gregg relates to the climate, which the last author, who spent several winters in Mexico, represents as remarkably mild. Alluding, not to Castañeda, but to Baron de Humboldt, who, without being acquainted with his work, had been informed that the winters were as severe as had been stated by him, Mr. Gregg considers such phenomenon as impossible as if it had been said to have happened in the harbor of New-York. The supposition of a change of climate is not admissible. But it is quite possible that the winter of 1540-1541 may have been as severe in New Mexico as is stated by Castañeda. That of 1770-1780 was equally so at New-York, when wagons crossed on the ice from the city to Staten Island.

The fact is thus most clearly established that, at the time of the conquest of Mexico by Cortes, there was northwardly, at the distance of eight hundred or one thousand

miles, a collection of Indian tribes, in a state of civilization intermediary between that of the Mexicans and the social state of any of the other aborigines. Whence and how it originated, is a problem which has been much agitated, and is not yet solved. The most popular theory is, that that country had been the abode of the Azteques, whence they migrated to Mexico. There is, however, a most clear fact which must be kept in view. The agriculture of New Mexico and that vicinity did not originate there, and was not thence transferred southwardly; the very reverse is the case. The most remarkable feature of the ancient agriculture of North America has already been stated. The plants cultivated for food were uniformly the same every where. Whether in Guatemala and Mexico, on the waters of the Colorado and the Rio Norte, or amongst the Indians residing within the United States, maize, beans, and pumpkins did, without exception, constitute the articles of cultivated vegetable food. No one can doubt that the native country of these, and more especially of maize, was between the tropics. Even according to the traditions ascribed to the Azteques, they were, on their arrival in or near the valley of Mexico, unacquainted with maize, and were taught to cultivate it by a residue of the Tolteques, a kindred nation which had preceded them. From whatever quarter the Azteques may have come, at least the agriculture of the country, which occupies our attention, came from the south. There is nothing astonishing in this, since it has been seen that, from the borders of the Mexican civilization, there was almost a continuity of agricultural tribes through Culiacan, both to the mouth of the Colorado of the West, and to the sources of the river Gila.

We are altogether unacquainted with the history of the migrations and revolutions, which may have taken place during thousands of years, amongst the Aborigines of America. Had it not been for the similarity of language and other correspondencies, it would never have been

known, that a colony of Tolteques, speaking a language kindred to that of the Azteques, had at some former period been expelled from their country, and, traversing Guatimala and other countries belonging to another family of languages, had formed a colony, and were firmly established as far south as Nicaragua. There is therefore no impossibility in the supposition of an ancient Tolteque colony having carried their civilization to the banks of the river Gila and the upper valley of the Rio Norte. But, in order to establish the fact, it is necessary that, as in the case of Nicaragua, it should be proved by a similarity of language ; and we have as yet no vocabularies either of New Mexico, the present Indian inhabitants of which are incontestably descendants of those found there at the time of Castañeda's expedition, or of the tribes which at this time occupy the country drained by the great Colorado of the West.

It is proper to observe, that the languages of the same tribes cannot have been materially altered during the last three hundred years. The tenacity of even unwritten languages has been fully proved by a multitude of instances. It is sufficient for our purpose to observe, that the vocabulary of Hochelaga [Montreal], taken by Cartier in the middle of the 16th century, evidently belongs to the Iroquois family ; that, with the aid of the few words found in the narrative of Soto's expedition, I have been able to trace his march, as far west as the Mississippi ; and that Mr. Duponceau made himself intelligible to some Wyandots, with no other assistance than the imperfect vocabulary taken, in the year 1625, by the Franciscan Sagard.

Nothing can be positively asserted, or denied, until the vocabularies alluded to shall have been obtained. As at present informed, the probability is against a similarity of languages. Castañeda, speaking of some Mexican Indians who, when the army returned to Culiacan, remained at Cibola, says, that they must, at the time when he was writing, have become good interpreters : and Baron

de Humboldt says that, according to the testimony of several missionaries well acquainted with the Azteque language, that spoken by the Moqui, the Yabipais, and the Indians who inhabit the plains in the vicinity of the Rio Colorado of the West, essentially differs from the Mexican.

The inhabitants of the river Gila and of the upper valley of the Rio Norte were utterly unknown to the Mexicans. The information respecting them and the rumors of the seven towns, which induced the Spaniards to undertake the expedition under Coronado, came in every instance from other quarters; from the travelling Tejo Indian, or from the northern Indians, met by Cabeça and his companions, in their way through Texas and west of it, from the Mississippi to Culiacan.

The ruins of ancient buildings, known by the name of Casas Grandes, ascribed to the Azteques, and called their second and third stations, are evidently of the same character as the ancient buildings of Cibola; most probably the remains of some of them. We have no description of the most southern of those Casas Grandes. Without at all asserting that this was the Chichilticalli of Castañeda, their geographical position corresponds. The Father Pedro Font has given the description of the great house, situated near the river Gila, considered as the second station of the Azteques, and which he visited in the year 1775. The ruins of the houses which formed the town extended more than one league towards the east; and the ground was covered with broken vases and other painted pottery.

The house itself is a parallelogram, facing precisely the four cardinal points, east, west, north, and south; externally seventy feet long from north to south, and fifty wide from east to west. It consists of five halls, three internal, of equal size, twenty-six feet by ten, and two external, thirty-eight feet by twelve; and they are all eleven feet high. The edifice had had three stories, and probably four, counting one under ground. There was no trace of stairs, which

probably were wooden, and burnt when the Apaches set the building on fire. The whole building is made of earth; the interior walls being four feet thick and well constructed, and the external six feet thick and shelving outside. The timber work consisted partly of mezquite, principally of pine, though the nearest pine forest was twenty-five leagues distant. Facing the eastern gate, which is separated from the house, there is another hall twenty-six feet by eighteen inside. Towards the south-west, there is a remnant of construction, one story high. Around the whole, there are indications of an external wall, which included the house and other buildings. This wall was inside four hundred and twenty feet from north to south, and two hundred and sixty from east to west. From some remains of mud walls [torchis], and some scattered blocks, it appears that there had been a canal, to bring water from the river to the town.

The traditions of the Mexicans, respecting the travels of the Azteques, went no further than that they came from the north or north-west, and, occasionally remaining several years in several places, arrived, at the end of about one hundred and fifty years, in the valley of Mexico. The supposition that they came from the Rio Gila, or any country north of it, was a mere conjecture of the Spaniards; which does not appear to have been sustained by any other fact, than that of the ruins above mentioned. It is indeed contradicted by the Mexican traditions, which placed the Aztlan of the Azteques, not in some unknown remote country, but adjacent to Michoacan; and, according to Fernando D'Alva, they were the descendants of ancient Toltecs, who had fled to Aztlan, and who now returned to the country of their ancestors.

If an identity of languages should hereafter be ascertained, it appears to me most probable that the civilization of the river Gila, and of New Mexico, must be ascribed to an ancient Toltec colony. If the languages should prove

different from the Mexican proper, or any of the other spoken between the tropics, we may not be able ever to ascertain how this northern civilization originated. Whenever a people has become altogether agricultural, the first germ of civilization has been produced; and subsequent progress will depend on the circumstances in which they are placed. Different species of civilization were found in Mexico, Peru, the table-land of New Grenada, and Chili. How each of these originated, and how far connected together, we are unable to say. If the civilization of the Gila and New Mexico was not of native growth, it appears most certain that it could not have been introduced from either the east, north, or west. In either of these directions, those people were surrounded by wild nations, in the hunter state, and cultivating nothing. Though the difference of language should forbid the supposition of a national colonization from the south, yet there is nothing impossible in the supposition that individuals from Mexico may have penetrated into that northern region, and brought to them some of the knowledge acquired by the inhabitants of their native country. Let it be, however, recollected that, though perhaps as intelligent as the Mexicans, and most certainly much more humane, they were in most other respects, especially in science and arts, very inferior to the Mexicans.

We have but imperfect accounts of the Indian tribes which now occupy the country drained by the Rio Colorado of the West. We are informed by Baron de Humboldt, that Father Garces visited, in the year 1773, the country of the Moqui on the Rio de Yaquesda, where he found an Indian town with two large squares, houses several stories high, and parallel streets. Every evening the people met on the terraces, which are the roofs of the houses. He also informs us that, when Fathers Garces and Font visited the Indians on the south of the river Gila, and in the vicinity of the Casas Grandes, they were peaceable cultivators, well clothed, and amounting to two or three thousand, in villages

called Uturicut and Sutaquisan. The missionaries saw fields of maize, cotton, and pumpkins. The character of the natives was mild and loyal. When the Father Font tried to persuade them of the advantages that would result from the establishment of Christian missions, where an Indian Alcalde would govern with strict justice, the chief of Uturicut answered, that this was not necessary for them. "We," said he, "do not steal—we rarely quarrel: why should we want an Alcalde?" These Indians had no communication with those of Sonora.

The destruction or expulsion of these Indians is ascribed to the wild tribes known by the name of Apaches. Farther north, in latitude about 36° to 38° , are found the Nabajos, who often invade the adjacent districts of New Mexico. They are represented by Mr. Gregg and others as an agricultural people, amounting to about ten thousand souls, living in rude wigwams, about one hundred and fifty miles west of Santa Fe, cultivating all the grains and vegetables of New Mexico, possessing numerous herds of horses and cattle, and distinguished by their manufactures of cotton textures. They would seem to be of the same stock as the Moqui, if not the Moqui themselves, driven so far north by the wild tribes called Apaches. Mr. Gregg also mentions, as living on the waters of the Colorado, the Pueblo of Zunni, one hundred and fifty miles west of the Rio del Norte, containing 1000 to 1500 souls. They profess the Catholic faith, cultivate the soil, have manufactures, and possess considerable quantities of stock. He also mentions the seven Pueblos of Moqui [as they are called], a tribe similar to the Zunni, and living a few leagues beyond; but now independent, and Pagans. He adds, that their dwellings are similar, that they are equally industrious and agricultural, and still more ingenious in their manufactures. Interesting additional information, respecting the remains of that ancient civilization, has been communicated by Lieutenant Emory.

In descending the Gila, from long. $108^{\circ} 45'$, to the mouth of the river, a distance of about 350 miles in a straight line, two Indian tribes only were found, both in the same vicinity, near the mouth of the Salinas, about long. 112° . Their respective names are Pijmos and Coco-Maricopas. The Pijmos are ancient inhabitants: their tradition is that they came from the north; but these traditions are loose and conflicting. Of the Coco-Maricopas, Mr. Emory received the following account:—They had come recently from the west. In 1826, Mr. Kit Carson met them at the mouth of the Colorado. Subsequently they were visited by Dr. Anderson, and were then at a point about half way between their present village and the mouth of the Gila river. When seen by Carson, in 1826, they were already an agricultural people; but have probably learned much from their neighbors, the Pijmos, whom they acknowledge as politically their superiors, and with whom they live on terms of intimate and cordial friendship. They are taller and more athletic than the Pijmos; the men had, generally, aquiline noses, whilst those of the women were *retroussés*. They also appear to be more sprightly, and perhaps more intelligent, than the Pijmos. The interpreters of the last nation are all natives of the Maricopas tribe. They have but few cattle, and not many horses.

The Coco-Maricopas were known to the Spanish missionaries long before the time when they were first visited by Mr. Carson. In the map annexed to Venega's History of California, and published at Madrid, in the year 1758, their name is inserted in a most conspicuous way; and they are represented as occupying the country south of the River Gila, near 150 miles in length, from its mouth upwards. They are mentioned in the body of the same work as having entertained friendly relations, about the year 1700, with Father Kino, the celebrated Jesuit, who ascertained that California was a peninsula; a fact which, though fully

established 160 years before, by Alarcon, had become a doubtful geographical question.

The Indians on the River Gila and its vicinity were visited, in the years 1744 and 1748, by Father Sedelmayer. He mentions two rivers as falling into the Gila: the Azule, inhabited by the Iodias called Nijoras; and the Assumption, forty-five leagues lower down, which is clearly the Salinas of Lieut. Emory. The Pimas and Coco-Maricopas are described as living on the banks of the Gila, and at peace together. Farther west, the Yumas, who inhabited the country along the Colorado, south of the Gila, were enemies of the Coco-Maricopas, though speaking a dialect of the same language. Those three tribes, and two other in the same vicinity, are called the peaceable nations, which should be sheltered against the more northern nations. For this purpose, expeditions were several times proposed, in order to conquer the Moqui; none of which was ever carried into effect.

We now revert to Lieut. Emory's observations.

The cultivation, dwellings, and dress of both nations do not essentially differ. The thatched cottages, thirty or forty feet in diameter, are made of the twigs of cotton-wood, (*Populus Angulosa*. Mich.) interwoven with the straw of wheat, corn-stalks, and cane.

Cotton, wheat, maize, beans, pumpkins, and water-melons, are the chief agricultural products of these people. Their fields are laid off in squares and watered by the *acequias* from the Gila River. Their implements of husbandry are the wooden plough, the harrow, and the cast-steel axe, procured probably from Sonora.

Both nations cherish an aversion to war, and a profound attachment to all the peaceful pursuits of life. This predilection arises from no incapacity for war; for they were at all times able and willing to keep the Apaches at a distance, and to prevent the depredations of those mountain robbers. They have a high regard for morality, and

punish transgressions more by public opinion, than by fines or corporal punishments. Polygamy is unknown amongst them; and the crime of adultery, punished with such fearful penalties amongst Indian nations generally, is here almost unknown, and is visited with the contempt of the relatives and associates of the guilty parties.

The ruins on the Gila were first seen in longitude about $109^{\circ} 20'$. Thence to the Pijmos village, distant about 180 miles in a straight line, the ruins were seen in great abundance wherever the mountains did not shut out the valley. They were sufficient to indicate a very great former population. In one place, between longitudes 111° and 112° , there is a long wide valley twenty miles in length, much of which is covered with the ruins of buildings and broken pottery.

These ruins are uniformly of the same kind. Not one stone now remains on the top of the other, or above ground. They are discoverable by the broken pottery in the vicinity, and by stones laid in regular order on a level with the ground, and showing the traces of the foundations of houses. Most of these outlines are rectangular, and vary from 50 to 200 and 400 feet front. The stones are unhewn and mostly amygdaloid, rounded by attrition.

The implement for grinding corn, and the broken pottery, are the only vestiges of mechanical arts among the ruins, with the exception of a few ornaments, principally large well-turned beads, the size of a hen's egg. The same corn-grinder and pottery are now in use among the Pijmos. The first consists of two large stones slightly concave and convex, fitting each other, and intended to crush the corn by the pressure of the hand.

The impression of Lieut Emory, as stated in his journal, and before he had ever heard of the work of Castañeda, was, that the ruins seen on the Gila might well be attributed to Indians of the same race as those of New Mexico and as the Pijmos. These last might easily have

lost the art of building *adobe* or mud-houses. In all respects except their dwellings, they appeared to be of the same race as the builders of the numberless houses now levelled to the ground higher up on the Rio Gila.

A short vocabulary of the Maricopas was obtained, which will be found in the sequel. It has no affinity with any other Indian language known to me; but I was struck by the fact, that the Maricopas word for *man* is *Apache*.^(a) Judging by analogy, it might be suspected that this was the name for Indian, and that this tribe, though agricultural and peaceable, belongs to the family of the Apaches. Lieut. Emory met with some wild Indians of this nation, and is of opinion that they rove on the waters of the Colorado north of the Gila. But they cannot be numerous in that quarter, since they do not disturb either the Pijmos or several other cultivating nations who, from reports, live peaceably in that quarter. It is well known that their depredations are principally directed towards the south, against the Spanish settlements of Sonora, of Chihahuha, and on the Rio Norte.

Lieut. Emory makes no mention of the *grandes casas* visited by Fathers Lafont and Garces in 1775. He may have travelled on the north side of the river; but it seems improbable that, if that building did still exist, he should not have heard of it.

Thus far Lieut. Emory relates that of which he was an eye-witness. The following notices communicated by him were principally derived from Indian information.

An intelligent Maricopas Indian informed him, that about fifty miles from the mouth of the Salinas, the walls

(a) The Indians very commonly distinguish their tribe by a word meaning "The Men." With the Athapascas *Dennee*; with the Algonkins *Illinois*, and *Lenno Lenape*, the pure, unmixed, men, the name assumed by the Delawares; and so also *reche*, name by which the Arancanians call themselves, from *re*, pure, and *câe*, man.

of a large three-story building of mud were now standing in a perfect state of preservation, with the interior sides glazed and finely polished; and that many traces of large *acequias* (aqueducts), and broken pottery in great abundance were seen about it. (Query,—whether by the words, *from the mouth of the Salinas*, fifty miles up that river or fifty miles from its mouth up the Gila, are meant? In the last case, which is not probable, this might be the *casas grandes*.)

Near the head waters of the Salinas, the course of which is said to be north-east and south-west, there is an Indian tribe called Soones, who, in manners, habits, and pursuits, are said to resemble the Pijmos, except that they live in houses scooped from the solid rock. Many of them are Albinos, which may be the consequence of their cavernous dwellings, and may also have given rise to the report of a race of white Indians in that quarter. Though bordering on the warlike Navajos, and surrounded by roving Apaches, they nevertheless till the soil in peace and security.

Another tribe of Indians called the Moqui was also reported to Lieut. Emory. Like the Pijmos and the Soones, they cultivate the soil and live in peace with their neighbors. The exact locality of this tribe has not been stated beyond the fact, that it is on or near the head waters of one of the tributaries of the Gila.

East of the Soones, and crossing the Sierra Madre, the Rio San José is reached, a tributary of the Puerco, itself a western tributary of the Rio del Norte. On the San José, remarkable Indian towns still exist, which have been visited by Lieut. Abert, U. S. Topographical Engineer.

These towns or villages are, like those of Cibola and of several other tribes of New Mexico, seven in number. They all lie on the very sources of the San José, adjacent to the Sierra Madre, extending in a south-western direction, from lat. $34^{\circ} 54'$ to $35^{\circ} 15'$. Their names are, from north to

south, Cibólleta, Moquino, Pognaté, Covero, Laguna, Rito, (now deserted), and Acoma. The description, which Lieut. Abert gives of the last mentioned place, agrees substantially with that of Mr. Gregg; and he leans to the opinion, that these are the identical ancient villages of Cibola. It is most certain that these were on the head waters of the Rio Gila, and not of any river emptying into the Rio Norte.

Father Sedelmayer states that, in his time (1745), the sources of the Gila were occupied by the Apaches, who are often alluded to by Castañeda, as savage tribes, who had destroyed several villages or colonies of the people of Cibola. It appears, therefore, certain that these Apaches had destroyed or occupied the seven ancient villages of Cibola. The inhabitants were either exterminated or driven away. They may have fled down the River Gila, and mixed with other kindred tribes. And it is also possible that they may have escaped eastwardly, across the mountain, and settled themselves on the San José. This, however, is a mere conjecture, sustained only by the name *Cibolleta*, of the most northern village. Acoma, if it can be identified with Acuco, was not one of the seven Cibola villages.

Lieut. Abert has also described seven other villages, situated on the other side of the Rio del Norte, near the eastern boundary of New Mexico, and lying about ninety miles south-eastwardly from the sources of the San José. Chititi, the most northern of these villages, is under the same parallel as Acoma. Thence follow, nearly due south, Tagique, Torreon, Mansano, Quarra, and Abo. This last place lies in lat. $34^{\circ} 25'$, and is now deserted, as well as Quarra. The other four are now inhabited by the Mexicans. Both Abo and Quarra contain ruins of stone structures, over one hundred feet in length. The foundations are shaped like crosses, and the material of which they are composed is stone. Abo is situated on a stream, which runs almost due west, and empties in the Rio del Norte; and, through this valley, there is an easy passage across the

great dividing ridge, which separates the valley of the Rio del Norte from the prairies. The streams on which the five other more northerly villages are situated, empty into a lake which has no outlet, or issue, to the sea.

Quivira, about fourteen miles east of Abo, was not visited by Lieut. Abert; but its position was correctly ascertained. This is the only place (besides Cibolleta) mentioned by Lieut. Abert, the name of which is the same as any of those found in Castañeda's relation. It is quite possible that the place now known by that name was the true Quivira of the Indians, at the time of Colorado's expedition. But, whether deceived by a treacherous Indian guide, as they assert, or having misunderstood what the Indians meant, which is quite as probable, the Spaniards gave the name of Quivira to an imaginary country, situated far north, and represented as abounding with gold.

Lieut. Abert agrees with Lieut. Emory, in considering the range of mountains, which separates the valley of the Rio del Norte from the sources of the rivers that empty into the Arkansas, as the highest range in the country, and more elevated than the true Sierra Madre, which separates that valley from the basin of the great Colorado of the West. All those nearly parallel ridges of mountains, which extend from the eastern extremity of the valley of the upper waters of the Rio del Norte to the Rio Colorado, below its junction with the Gila, abruptly terminate between the 31st and 32d degrees of latitude, south of which, as far, probably, as the vicinity of Durango, the Sierra Madre alone remains, varying considerably in its elevation, which, in some places, as appears by the march of Col. Cook, presents no obstacle to the traveller.

Castañeda's account of the social state, and of the advances of civilization, of the ancient inhabitants of New Mexico and of the Rio Gila, have been fully confirmed by the subsequent relations of the Spanish missionaries, of Mr. Gregg, of Lieut. Emory, and of other modern travellers. In New Mexico, the habits of the native Indians have un-

doubtedly been modified by their intercourse with the Mexicans. They have acquired the knowledge of many new arts, and the sphere of their ideas has been enlarged; but enough of the original features and habits remains to recognise in them the genuine descendants of the ancient inhabitants. On the Rio Gila, and, so far as they are known, on several branches of the Rio Colorado, the resemblance is still more striking; though they appear to have lost the art of building stone and mud-houses, practised by their ancestors. With the single exception of the Navajoes, the most northern of those tribes, they appear to be all peaceable cultivators of the soil, and yet respected, and hardly disturbed by either the Navajoes or the Apaches.

It appears certain that but few of the last mentioned nation are found north of the Rio Gila. From the banks of the Rio Colorado to those of the Rio del Norte, their abode is in the recesses of the southern extremities of the mountains south of the Rio Gila, or bordering on the southern limits of New Mexico, whence their depredations are carried on, not against their northern neighbors, who have but few horses and cattle to tempt their cupidity, but towards the south, against the adjacent Mexican provinces.

Although the agriculture of the inhabitants of New Mexico, and of the basin of the Rio Colorado, was evidently derived from that of Mexico, they appear to have been altogether unacquainted with the subsequent advances, in arts and science, of the Mexicans. They had no hieroglyphics, nor any other written mode of transmitting historical or other information; they had no calendar, nor any astronomical knowledge; they were, in the development of the intellectual faculties, very inferior to the Mexicans. Yet, they are described by Castañeda as remarkably intelligent; and, when compared with the apparently more civilized Indian nations, the contrast is, in many respects, favorable to them.

In the first place, there was equality amongst them; they had neither king or nobility; there were no serfs or

degraded caste amongst them ; they might have a nominal chief, but government was in the hands of a Council of old men ; they were not oppressed by the coalition of a despot, and of a favored caste with the priests of a most execrable worship. This was only an exemption of those evils which have often, and in many places, attended the early steps towards civilization of a savage people. And it may be said that, in this respect, the Indian nations we now consider were in the same situation as those resident within the boundaries of the United States. But, though consisting of distinct communities, and not exempt from occasional wars, the inhabitants of Cibola and New Mexico displayed none of that ferociousness which characterized the warfare of the Iroquois and Algonkins, and indeed of all the Indian tribes between the Atlantic and the Mississippi.

Cannibalism and human sacrifices were nowhere found amongst the Indians of the Rio Colorado and New Mexico. These are but negative, but they had also positive virtues. They were, and are still, remarkable for the chastity of the women, the conjugal fidelity of both sexes, the respect for property, and the integrity of all their dealings. These features, and the fact that offences against the society are efficiently punished by universal contempt, or public opinion, bespeak a far higher standard of morality than that of any other American nation. If inferior to the Mexicans in the expansion of the intellectual, they were far superior in the exercise of the moral faculties.

The examination of the social state of the aborigines of America is an important leaf in the history of Man. It is undoubtedly interesting to ascertain the progress which a people may make, when almost altogether insulated, and unaided by more enlightened nations. But the result of the inquiry is almost universally afflicting ; and if I have dwelt longer on the history of these people than consisted with the limits of this essay, it is because it has been almost the only refreshing episode in the course of my researches.

III. PHILOLOGY.

SECTION I.

VOCABULARIES.

THE only object I had in view, in my early researches on this subject, was to ascertain, by their vocabularies alone, the different languages of the Indians within the United States; and, amongst these, to discover the affinities sufficient to distinguish those belonging to the same family. Subsequently, those spoken in the country north of the United States, and those of Oregon, have been included in the investigation; and I have, as I think, succeeded in ascertaining thirty-two distinct families, in and north of the United States.

The word "family" must, in the Indian languages, be taken in its most enlarged sense. Those have been considered as belonging to the same family which had affinities similar to those found amongst the various European languages, designated by the generic term, "Indo-European." But it must be kept in view that this has been done without any reference to their grammar or structure; for it will be seen in the sequel that, however entirely differing in their words, the most striking uniformity, in their grammatical forms and structure, appears to exist in all the American languages, from Greenland to Cape Horn, which have been examined.

By distinct languages belonging to the same family, those are meant which cannot be understood by its several tribes without an interpreter. They may be compared, in that respect, to the various European languages derived from the Latin.

I think that to compare words taken at random amongst several well known distinct families, with various words

likewise taken from a variety of distinct families in another quarter, is an illegitimate process, from which no correct inferences can be drawn. For this reason, I have for the present, and until better informed, taken no notice of those drawn by Barton, Vater, Maltebrun, and others, from certain coincidences between a variety of Tartaric languages, and a variety of totally distinct families of American languages.

But, in order to ascertain whether any one given language has affinities with any one well ascertained family, consisting of various languages, the comparison of the first with all those of such family has appeared to me to be a legitimate process. It is on this principle that the thirty-two families, above mentioned, have been arranged in the annexed table.

THE FAMILIES OF LANGUAGES AS FAR AS ASCERTAINED.

MOST NORTHERLY.

- I. Eskimaux, from Atlantic to Pacific
- II. Kenai, Cook's Inlet or River
- III. Athapascas, from Hudson's Bay to Pacific

EAST OF THE STONY MOUNTAINS.

	<i>East of Mississippi.</i>	<i>West of Mississippi.</i>
Northern	{ IV. Algonkins (<i>a</i>) V. Iroquoia	VI. Sioux (<i>b</i>) VII. Arrapahoes
Southern	{ VIII. Catawbas IX. Cherokees X. Chocta-Muskog XI. Uchees XII. Natchez	XIII. Adaize XIV. Chetimachas XV. Attacapas XVI. Caddos XVII. Pawnees

(*a*) The Blackfeet, and the Shyennes, who have been discovered to be Algonkins, are west of the Mississippi.

(*b*) The Winebagos, who are Sioux, reside east of the Mississippi.

WEST OF THE STONY MOUNTAINS, FROM NORTH TO SOUTH.

<i>North of the United States.</i>	<i>In the United States.</i>
XVIII. Koulischen	XXII. Kitunaha
XIX. Skittagets	XXIII. Taihaili-Selish
XX. Nane	XXIV. Sahaptin
XXI. Wakash	XXV. Waiilatpu
	XXVI. Tshinooks
	XXVII. Kalapuya
	XXVIII. Jacon
	XXIX. Lutuami
	XXX. Saste
	XXXI. Palainih
	XXXII. Shoshonees

The languages of California have not been sufficiently investigated to arrange them according to families.

It is believed that no doubt can exist respecting the classification of families, except in the following cases.

The affinities of the Chocta and of the Muskhog, so as to make but one family, called Chocta-Muskhog (or perhaps the great Floridian language); of the Blackfeet with the Algonquin family, which appears to me conclusively proved; of the Mandans and stationary Minetares with the Upsarokas, or Crows, which is very clear; and of these languages with the great Sioux family, which is the most doubtful. But, in every instance, I have laid all the facts before the reader, in the tables (K, Y, Z.), which will enable him to judge for himself of the correctness of my arrangement in those cases.

The most northerly of those families, the Eskimaux, are the sole native inhabitants of all the shores of all the seas, bays, inlets, and islands of America, from the eastern coast of Greenland, in longitude 21° , to the Straits of Behring, in long. 167° . On the Atlantic they extend, also, along the coast of Labrador, to the Straits of Bellisle, and within the Gulf of St. Lawrence, nearly as far south as latitude 50° . The western division of the nation extends from the Straits of Behring, along the shores of the Pacific southerly and eastwardly, till they disappear in the vicinity of Mount St.

Elias, latitude 60° , and longitude 140° . A tribe, the sedentary Tchuktchi, inhabits the western shores of the Straits of Behring, or that north-eastern extremity of Asia which lies north of the River Anadiar. The distance, proceeding along the sea-shore, between the extremes of the country inhabited by the Esquimaux, is not less than 5400 miles; but they are rarely found farther from the sea-shores than about one hundred miles. They have at least six ascertained distinct languages. Five vocabularies of these are inserted in the general comparative vocabulary. But there can be no doubt that, in common with all the families that spread over such a great extent of country, there must be a much greater number of distinct languages than has as yet been ascertained. This observation applies forcibly to the next ensuing family.

The Athapasca occupy the whole country south of the Esquimaux, from Hudson's Bay to the shores of the Pacific, which is bounded on the south by the Algonkin, Coutanie, and Selish nations, or by an irregular line varying from lat. 53° to 56° . The most easterly Athapasca tribe is called, by the Hudson Bay Company, Northern Indians. We know, from Hearne, that these and the Copper-Mine Indians are but one people, and speak the same language. Hearne regrets the loss of a voluminous vocabulary; but, from the words scattered through his relation, their language appears clearly to be the same with that of McKenzie's Chippeyans, who are found in the vicinity of Lake Athapasca. These call themselves *Sau-cessaw-dinneh*, "Rising Sun Men." The vocabulary of their language, by McKenzie, is the only one we have of the Indian tribes of that family east of the Rocky Mountains. The geographical situation, and the names of numerous other tribes, have been given either by McKenzie, or by Capt. Franklin; but they are all expressly said to speak dialects of the same language with that of the Chippeyans. Several tribes

of the same family are also found west of the Rocky Mountains. The principal of these is the Taculli, or "Carriers," of whom we have two vocabularies, one from Mr. Harmon, who resided several years among them, and one obtained by Mr. Hale from a missionary. The population of the Athapascas does not correspond with the great extent of territory they occupy. That east of the Stony Mountains and McKenzie's River does not appear to exceed 20,000 souls.

South of those two nations, the Indians may be geographically arranged, as follows: east of the Mississippi; between the Mississippi and the Stony Mountains; west of the Stony Mountains.

1. *East of the Mississippi.*

The territory occupied by the Algonkin and Iroquois tribes lay south of the Athapascas; but the tribes of the Iroquois family were, on all sides but the south, bounded by the Algonkins. The boundaries of the territory occupied by both together, when the Europeans made their first settlements in that part of North America, were generally, and with very few exceptions, eastwardly, the Atlantic Ocean; northwardly, the Athapascas; westwardly, the Mississippi southwardly, an irregular line drawn westwardly from Cape Hatteras to the confluence of the Ohio and Mississippi, or its vicinity.

The Iroquois consisted of two distinct groups, separated from each other by several intervening but now extinct Algonkin tribes. The tribes of the southern group, bounded on the east by the most southerly Algonkins, who held the low country along the sea-shore and the sounds of Albemarle and Pamlico, occupied a considerable part of the country, south of James River, and extending southerly beyond the river Neuse. The Meherrins and Nottoways were settled on the rivers of that name in Virginia. The Nottoways were reduced to twenty-seven souls in the year 1820.

We have two vocabularies of their language, taken by J. Wood and the Hon. James Tresevant. From this we learn that the true name of the tribe is *Cheroakak*. South of these, the Tuscaroras were the most powerful nation within the limits of North Carolina. A disastrous war with the Carolinians, compelled the great body of the nation to remove in 1714-15, and to unite themselves to the confederation of the Five Nations, by whom they were received as the Sixth.

The northern group of the Iroquois consisted of two distinct divisions. The eastern was the confederation known by the name of Five Nations, viz., the Mohawks, Oneidas, Onondagoes, Cayugas and Senecas. The western consisted, as far as can be ascertained, of Four Nations: the Wyandottes or Hurons on the eastern shores of Lake Huron, and whose sovereignty over the country as far south as the Ohio was generally acknowledged; the Attionandarons or neutral nation east of the Wyandottes; the Erigas, south of Lake Erie; and the Andastes or Guandastogues (*Guyandottes*), on the rivers Alleghany and Ohio. The three last have been utterly destroyed or incorporated by the Five Nations. We have vocabularies of the Wyandottes, Mohawks, Oneidas, Onondagoes, Senecas, and Tuscaroras.

The various distinct languages of the Algonkins are so numerous that it was thought useful to arrange them into several classes, not only geographically but also in reference to their respective affinities.

EASTERN.

<i>Sheshatapoosh</i>	}	On the northern shores of the Gulf of St. Lawrence.
<i>Scoffes</i>		
<i>Micmacs</i>	}	Western shores and rivers of the Gulf of St. Lawrence and Nova Scotia.
<i>Etchemins</i>		
<i>Abenakis</i>	}	River St. John, and between it and the River Penobscot.
		The Kennebec, probably extending to Saco.

ALONG THE ATLANTIC.

<i>Massachusetts</i> . . .	} These tribes extending from the vicinity of Saco to Hudson's River, spoke very kindred languages.
<i>Narragansetts</i> . . .	
<i>Mohicans</i> . . .	
<i>Montaks, &c.</i> . . .	Long Island, several distinct languages.
<i>Minsi and Delawares</i> . . .	} Formerly one nation, between Hudson's River and the Susquehannah.
<i>Nanticokes</i> . . .	
<i>Susquehannoks</i> . . .	Eastern shore of Chesapeake.
<i>Powhattans</i> . . .	On Susquehannah; destroyed.
<i>Pampticoes</i> . . .	Virginia.
	North Carolina, as far south as Cape Hatteras.

NORTHERN.

<i>Knistinaux (Crees)</i> . . .	} South of the Athapascas, from Hudson's Bay to the sources of the Mississippi.
<i>Montagnars</i> . . .	
<i>Ottawas</i> . . .	River St. Lawrence, from its mouth to Montreal.
<i>Ojibways, or Chippeways</i> . . .	} Originally on that river, subsequently in Michigan.
<i>Potawatamies</i> . . .	
<i>Misissig</i> . . .	From the eastern end of Lake Superior to the Red River of Lake Winnepeg.
	On Lake Michigan.
	North-eastern end of Lake Ontario.

WESTERN.

<i>Menomenies</i> . . .	Green Bay.
<i>Miamis</i> . . .	} Ohio, Illinois, Wabash and Miami Rivers. The languages of those three tribes are almost identic.
<i>Piankeshaws</i> . . .	
<i>Illinois</i> . . .	
<i>Saukies and Foxes</i> . . .	} Mississippi; these three tribes speak precisely the same language.
<i>Kickapoos</i> . . .	
<i>Shawnoes</i> . . .	} Originally on Cumberland River; since, great wanderers on the Susquehannah, on the Scioto, among the Creeks.
<i>Blackfeet</i> . . .	
<i>Shyennes</i> . . .	Far west, on the River Sankachawan.
	} West of Mississippi, on Rivers Platte and Shyenne, both tributaries of the Missouri.

There was not in the territory occupied by the Algonkins and Iroquois a single tribe which did not speak a dialect of either the one or the other nation.

The four principal nations, south of the Algonkins and east of the Mississippi, were the Cherokees, principally on Tennessee River; the Creeks south of them, and extending to the Gulf of Mexico; the Chickasas west of the Cherokees; and the Choctas west of the Creeks. But these two

last nations, though politically distinct, speak two almost identic dialects of the same language.

The Creeks are a confederacy, nine-tenths of which speak the Muskhog language; the great affinity of which with the Chocta has already been adverted to. The Seminole, of which we have no vocabulary, is said to be identic with the Muskhog. The Hichitees, a small tribe of the confederacy, speak a dialect of the Muskhog. The other members of the confederacy are the Utchees, considered as the original inhabitants of the country, and who speak a most guttural language; the residue of the Natchez; and two very small tribes, called Alibamous and Coosadas.

The only still subsisting nation, between the Cherokees and the Algonkin or Iroquois tribes, is that of the Catawbias, in the western part of South and North Carolina, formerly powerful, and speaking a language belonging to the same family as that of the Wookons. We have not, with the exception of the names of a few localities, a single vestige of the languages of the small tribes, which once inhabited the sea-shores of Carolina, from Cape Hatteras to the River Savannah.

2. *Between the Mississippi and the Stony Mountains.*

South of the Athapascas, the northern part of the country between the Mississippi and the Stony Mountains was occupied, almost exclusively, by the several nations belonging to the great family of the Sioux. Along the Mississippi, they extended as far south as the Arkansa; and along the eastern margin of the Stony Mountains, to latitude 43°. They may be considered as consisting of four subdivisions.

Eastwardly, the Winnebagoes, who call themselves *Hochuagohrah*, are a detached tribe, on the western shores of Lake Michigan, and surrounded on all sides by Algonkin nations.

Northwardly, the four tribes of the Dacotahs, on the Mississippi and between it and the St. Peter's; the Yank-

tons, the Yanktoanans and the Tetons, wandering tribes between the Mississippi and the Missouri; and north of these the Assiniboins, so called by the Algonkins, separated from the rest of the Dacotah nation, and on that account called *Hoha* or rebels by the other Sioux.

Southwardly, the Quappas, Osages and Kansas, the Missouris and Ottoes, the Omahaws and Puncas, and the Ioways. The last tribe has formed an alliance with the Sauks and Foxes. The others occupied the country bordering on the Mississippi between the Missouri and the Arkansas, and extending north-westwardly far up the Missouri.

Westwardly, the Mandans, the stationary Minetares, and the Upsarokas, all on the Upper Missouri and the Yellowstone.

North of this last group and of the Missouri, and bounded on the north by the Athapascas and Assiniboins, the Satsika or Blackfeet occupy the country drained by the upper branches of the Saskachawan, and extend southwardly towards the Missouri.

These people are a confederacy of five tribes, viz.: the *Satsika* or Blackfeet proper; the *Kena* or Blood Indians; the *Piekan* or Pagan Indians; the *Atsina*, *Arrapaoes*, Fall Indians, or Gros-ventres; and the *Sussees*. The first three speak the same language which belongs to the Algonkin family. The *Sussees* speak a dialect of the Athapaskan. The *Arrapaoes* have a distinct language, of which we have as yet hut a scanty vocabulary.

The other tribes between the Mississippi and the Stony Mountains that are known to us, and of which we have vocabularies, are the Pawnees, on the waters of the Rivers Kansas and Platte, a tribe of whom, called Ricaras, have a stationary village up the Missouri north of lat. 45°; and four tribes, or remnants of tribes, on the Red River of the Mississippi, and south of that river in the immediate vicinity of the Mississippi. These are the Caddos, Adayes, Chetimaches, and Attakapas.

3. *West of the Stony Mountains.*

Referring to Mr. Hale's arrangement, it is sufficient here to mention that the Selish family embraces eight languages: the Sahaptin, the Waiilatpu and the Tshinook, each two; and the Shoshonees, three ascertained, and probably more.

Between the vicinity of Behring's Bay lat. about 59° and Fuca's Straits, we have vocabularies of only four languages, viz.: the Koulisken, whose language extends South of Sitka; the Skittagete, of Queen Charlotte's Island; the Naass, on the Main; and the Wakash, of Vancouver's Island.

Our deficiencies within the boundaries of the United States, prior to the annexation of Texas, are:

East of the Mississippi, the Piankishaws, known with certainty to belong to the Miami group of the Algonkins, but of which we have no distinct vocabulary; and the Coosadas and Alibamous, consisting each of about 300 souls, and who, prior to the late removal of the Creeks westwardly, were settled on the Rivers Coosa and Alabama, and who are said to have a language distinct from the Muskhog. Of various Algonkin extinct tribes we have not a single word, and only a few of the Powhatans and Pampticoes.

Between the Mississippi and the Stony Mountains, the Kiaways and Kaskaias, wandering tribes between the Arkansa and the Red River of Mississippi; the Panis and the remnants of several small stationary tribes on the Red River of the Mississippi and south of it; the Shyennes, on the waters of the Missouri, but wandering south of the Arkansa, who had been believed to be Sioux; a question yet doubtful (a); the Tetons and several other northern buffalo-hunting Sioux; the Ricaras, known to be Pawnees, but of whose language we have no vocabulary.

West of the Stony Mountains and north of the United States there are, south of the Athapascas and west of Fraser's River, several tribes of which the language is not as

(a) Since this was in the press, a vocabulary of the language of the Shyennes has been obtained, which proves that it belongs to the Algonkin family. See post, pages cxi, cxiv, cvv.

yet ascertained. In the country occupied by the Athapascas and Esquimaux, no other language has been as yet discovered, except the Loucheux, on the Arctic Ocean at the mouth of McKenzie's River. West of that river, the interior of the country has been but very partially explored, or at least made known to us.

South of the United States we have hardly any vocabularies. California forms an exception. We have in that Province, north of lat. 32° , partial vocabularies of nine or ten tribes, of which specimens are annexed, but not arranged into families.

The languages of which it would be most desirable to obtain vocabularies are those of New Mexico, of the Rio Gila, and generally of the country drained by the great Colorado of the West. The importance of these has been stated at large in the preceding section.

Next to these, the vocabularies most immediately wanted are those of the Eutaws, the Cumanches, and the Apaches. The two first and the Shoshonees are said by Mr. Hale to speak the same language. This appears to me doubtful, and should be investigated. If found to be true, it would be a most valuable addition to our knowledge of Indian languages.

The name of Apaches has been given to the formidable nomade tribes, which infest the Spanish dispersed settlements or missions, from the Gulf of California to the Rio del Norte, and even further east. To them is also ascribed the destruction of the ancient cultivating nations of the Rio Gila, and of their southern colonies. Their name may be generic and embrace several tribes of similar character, but having different languages.

Lieutenant William H. Emory, of the U. S. Corps of Topographical Engineers, to whom I am greatly indebted for several important communications, has supplied me with a short vocabulary of an Indian tribe, called Coco-Mari-copas, settled in the vicinity of the Rio Gila, which has no connection with any other Indian language known to me.

One	Sandek	Horse	Quactish
Two	Huveka	Man	Apache
Three	Hanoka	Woman	Seniact
Four	Champapa	Child	Comeræ
Five	Sarap	Corn	Tarichte
Six	Mohok	Water	Ha-uehe
Seven	Pakek	Fire	House
Eight	Sapok	Foot	Ametche
Nine	Hurcamoke	Hand	Is-sa-lis
Ten	Shahoke	Eyes	Adoche

The word for man is *Apache*, which affords strong presumptive evidence that this is an Apache vocabulary. It is a feature common to several Indian tribes, that the name by which they call themselves is *the man*, implying their superiority over every other tribe or nation. Among the Algonkins, the names of *Lenno-Lenape* and *Illinois* are well known; and similar instances are found among the Athapascas, Araucanians, and several others.

In Europe, the great family of the Indo-European languages has almost superseded all the others. Independent of invasions of a quite recent date, the Magyars or Hungarians and the Turks, there are but two exceptions, the Basque towards the south-western, and the Finns in the north-eastern extremity of Europe. The origin of both ascends to ante-historical times.

A somewhat similar phenomenon, though not to the same extent, is found east of the Stony Mountains, in the northern part of North America. Seven families occupy more than nine-tenths of that vast territory. These are: in the most northern region, the Esquimaux and the Athapascas, who extend from sea to sea: west of the Mississippi, the Sioux: east of the Mississippi, in the north, the Algonkins and the Iroquois; in the south, the Cherokees and the Chocta-Muskhog.

The only families within those limits who have been ascertained to speak other languages are: in the farther north, the Loucheux; west of the Mississippi, the Arrapaoes,

the Pawnees, and some small wandering tribes, east of the Mississippi, not one intermixed with the Algonkins and Iroquois; among the southern Indians, the Catawbias, the Utchees, and the Natches. The several other small tribes speaking different languages, of which vocabularies have been inserted, are crowded west of the Mississippi, between the Red River and the sea-shore, and, with the exception of the Caddos, appear to be the remnants of conquered nations, who took refuge in or near the delta of the Mississippi.

It is quite otherwise west of the Stony Mountains. It will be seen by reference to Mr. Hale's vocabularies, that a multitude of distinct families of languages are found, both along the sea-shore from the 50th to the 32d degree of latitude, and in the interior of Oregon. Along the shores of the Atlantic there was no other family of languages but that of the Algonkins, from the 50th to the 35th degree of latitude. Along the shores of the Pacific, from the 57th to the 42d degree of latitude, there are, (independent of a portion of the Main in the north, the languages of which have not been ascertained,) not less than eleven languages belonging to distinct families; viz., Koulischen, Skittiget, Naas, Wakash, Tsihailiesh, Athapasca, Tshinook, Nsietschaws, Jakon, Saiustkia, Totutune. And, moreover, none of these, except the Tsihailiesh, penetrate fifty miles inland; whilst the tribes belonging to the Algonkin family extend from the Ocean westwardly to the Mississippi.

ADDITIONAL NOTE.

Whilst this section of the Introduction was in the press, I received from Lt. Abert, of the Corps of Topographical Engineers, a vocabulary of the Shyenne language. It is what may properly be called a Trader's Vocabulary, and contains but few of those primitive words, which are the most important in ascertaining the affinities of languages. As there is no other extant of the Shyenne, it is inserted here under the letters *Sh*.

Messrs. Lewis and Clarke have given a short account of that nation, which they call Chayennes. They were originally settled on a stream called Chayenne or Cayenne, an upper branch of the Red River of Lake Winnipeg, from which they were driven away by the Sioux: an account which is confirmed by Alex. Mackenzie. They retreated west of the Missouri, below the river Warreconne, where their ancient fortifications still existed in 1804. Thence they were again compelled to retreat farther west, near the Black Hills, on the head branches of the river which now bears their name. They were then in the habit of stealing horses from the Spaniards of New Mexico, and are to this day one of the roving tribes, on the waters of the River Platte and of the Arkansa. They concluded, in 1825, a treaty with the United States, and the names of the chiefs who signed it were pure Sioux of the Yankton language. But Mr. Kennet McKenzie, the active partner of the St. Louis Fur Company, who has resided twenty years near the mouth of the Yellowstone River, and to whom we are indebted for the best vocabularies of the languages of the Blackfeet, the Upsarokas or Crows, and several other tribes, informed me, that there was not at that time any European interpreter for the Shyenne, that the treaty was carried on through the medium of some Sioux, and that he had reason to believe that the names subscribed to it were Sioux translations of those of the Shyenne chiefs.

This is fully confirmed by the vocabulary transmitted by Mr. Abert, in which no affinity whatever is discovered with the Sioux. Although, from its nature, it contains but a small number of primitive words, or of those for which we have equivalents in other languages, there are enough to establish the fact that the Shyennes are, like the Blackfeet, an Algonkin tribe. Out of forty-seven Shyenne words for which we have equivalents in other languages, there are thirteen which are indubitably Algonkin, and twenty-five which have affinities more or less remote with some of the languages of that family. Of these last, I would have rejected

more than one-half, had they stood alone; but they corroborate, to some extent, the evidence afforded by the words the etymology of which is clear. The nine remaining words (out of the forty-seven) which have no apparent affinity with the Algonkin, are hill, mountain, stone, little, white, and the numerals 6, 7, 8, 9. On comparing the vocabulary with those of other families, I could discover no other words which had any resemblance but the following: Little, *hakee* Shyenne, *okeye* Wyandott; Fire, *sist* Shyenne, *ojishka*, *ojista*, Seneca, Oneida.

K.

COMPARATIVE VOCABULARY OF THE CHOCTA AND MUSKOGEE.

[Out of 600 words, the following 97 have some affinity.]

	CHOCTA.	MUSKOGEE.		CHOCTA.	MUSKOGEE.
His father	inky	ihky	Sky	shutik	soota
His mother	iky	ihky	Sun	hshbee	hasee
His grandmo-	ipokni	ipoy	Day	nitok	nitla
Daughter (the)	hshitek	ichosta	Night	hinnok	hishse
Aunt	ihky	ichkoche	West	haha okatula	hasee okashka
Female	tek	inketa	Black	haza	hazy
Boy	oomoo (Chica.)	hibanoosee	Bine	chchako	chointy
Wife	oogwahah (do.)	hivelah	Yellow	lokka	hiany
Infant	pothcoose (do.)	hokooy	Young	nimita	moone
Head	hshakto	ekka	Cold	kosupa	kopnui
Hair	pashi	isel	I	unno	enul
Eyelids	niabkinhokabup	toth alhy	Thou	chismo	chymy
Tooth	noti	innotay (his)	We	pisno	pony
Arm	shokba	tokpa	His	imny	inniny
Bone	fony	y fony (his)	That--there	ymma	hunnua
Fox	chula	chuhla	Who	huta	ista mnt I
Dog	oft	yfa	What	nanta	hanga
Rabbit	chukfi	chafi	Multitude, ma-	okla	omulga
Fat, grease	nid	nishi	Spring	ay tospi	tasnik
Meat	nippe	abiswan	Winter	onafa	hlofo
Buffalo	yonnush (Chic.)	yenneseau	Wind	mahly	hualy
Polecat	conne	connoo	Whirlwind	opanakfila	noonjofila
Duck	okfuchuh	fochi	Water	oka	oktee (Hitch.)
Pigeon	puchi	paji	Ice	okti	hokitoh
Bird	foohse (Chic.)	fosewan	Earth, land	hsheneh	ikahnah
Egg	woolose (do.)	ichosewan	River	hucha	hatchi
Owl	ope	oopen	Sea	okhuta	wehuta (Hitch.)
Once	himmona	hanga	Tree, wood	itte	itto
First	ummona	inhomaty	Path	hishh	huzi
Two	tacko	hekoly	Flower	pokeuly	pokepogy
Three	tachina	tuobay	Maize	tanchi	achi
Four	shla	osty	Sweet potato	sh	sh
Seven	ontakio	kolopagy	Pumpkin	osi	chasi
Eight	untachina	chansapgy	Chestnut-tree	otupi	lottept
Five	tahlape	ehokapy	Trunk of a tree	appi	mobbi
Ten	pakoli	ispoko (Hitch.)	Walnut	hahi	ohawa
Star	shik	owohchikee (do.)	Grapes	poki	pahiko
King	minko	mitko	Leaf	hisha (Chicaza)	hosi
Warrior	tushka	tuatunggi	Far	hopaki	hopiyi
Messenger	anumpa shali	ponnuka shala	And	moma	minua
Battle	tibi	tippoka	To eat	upa	humbi
Victory	imayashi	imudulga	To drink	uhko	yndki
House	chuka	choko	To fight	tubi	tipoyi
Field	osepa	ohoppowa	To sleep	nos	noji
Collar	inchi	ynochka	To die	sh	sh
Wagon	itchaaballi	isoballych	To give	ima	amy
Buried	aholop	hopilga	To take	ishi	isz
Spirit, water-	oka homi	on omi	To bury	hohpi	hohply
Food [bitter]	himpa	umbitta	One	shufes	hanna

Y.

AFFINITIES OF THE SASTIKA OR BLACKFEET LANGUAGE WITH THOSE OF THE ALGONKINS.

Out of 180 words, 54 have clear affinities.

	BLACKFEET.	ALGONKIN.
Man	ay aketap pe ninao (Hale)	akitop (Etchemin) neneo (Saukies), anini (Ottowas), inini (M'k Alg.), minnee (Long's Ch.), anin (Nar'settis) neemasao (Mohicans)
Woman	ahkeys, akua	kwyokih (Saukies), ekuiwa (Shawnees), ikoo (Illinois), ikweh (Old Alg.), ok-kweh (Del.), ekwa (Long. Chip)
Mother	okist, nikistas	uckos (Etch.)
Fou	nohkos, nokkoa	nokkwa (Nantic), n'kos (Etchemin)
Daughter	netan, n'iani	netanis, tanis, denis, tonis (Knist., Chip., Ottow., Labr., Mass., Nar'sett, Saukies, &c.)
Brother	nasah, nias	nasiwas (Etch.), nitise (Aben.), sayin (Ottowas)
Sister	niskun	keesunis (Long Isl'd)
Head	otoquoia, otukan	ostiquoin, nestegwan (Knist., Chip., Old Alg., Scoties, Minis), otokosaa (Labrador)
Hair	onai (Hale)	n'is (Otto.), n'isash (Ill.), basis (pl. Old Alg.)
Forehead	oner	aseesh (Shawnees)
Ear	obiokain, ostukki	ottoway, towakeh, iawag (Knist., Chip., Otto., Mass., Nar., Moh., Del., Miam., Shawns.)
Nose	ohkiwin, wokait	oskiwin (Knist.), okewon (Mohicans)
Neck	okokin, okokini	kwekaneh (Miami), n'ekwaneh (Saukies)
Arm	ohsin, okunis	onik (Chip.), onik (Knist.)
Nails	owotan okitx, okotahh	okkoohi (Miami)
Leg	ohheal, omaknoki	okut (Chippewas), mahkout (Mam.)
Bone	oh'kiuuah	okun, okunnun, ochunne, okaneh (Chip., Ott., Menom., Shawns., Sauk.)
Kettle	eske, hika	askik, akeek (Knist., Chip.)
Hatchet, axe	kaksakin	takabagan (Illinois)
Skv	kuscistrukni	keesick, kesak (Knist., Chip., Mass., Nar., Ill.) from <i>kiis</i> , sun
Darkness	pihkinatsi	pekanas, pokkuni (Aben., Mass., Nar.)
Morning	eka utiame, apnaks	eshki, ipohoo (Labr.), wapan, wapaneh (Del., Shawns.)
Evening	ahtakote, tahistaks	pakoteh (Sauk.), takashike (Knist.)
Summer	napeoa	pepin, nipin, nepoon, &c. (almost all)
Snow	ohputah, konia	kon, koon, gun, quono, akon, koon (Chip., Lab., Mass., Del., Nant., Sauk., Men.)
Hail	sahoo	saangun (Knist., Chip.), mizekuah, missegon (Miam., Mass.)
Fire	esteu	es qui tu (Knist.), staw (Mohicans)
Earth	kaahcoom, sakhkni	ackey (generally), askee (Knist.), asckikhe (Ill.), askee (Shaw.)
Lake	mahsekame	mskaque (Shaw.)
Island	mane	minis, mnan, meenash, &c. (generally)
Tree	masetis, mistis	mistookoah (Labr.), mistakuck (Miam.), ma- tee, metick (Old Alg., Chip., Mass., Men.)
Wood	do. mistis	mishook (Labr.), miik (Chip., Old Alg., Moh., Shaw., Sauk.)
Wolf	mahcooys	muckwainuck (Miam.), myegun (Knist., Chip.)
Dog	emittish, imitao	attim (Knist.)
Bird	pakosa, pikau	pokees (Mass., Nar.), pethesew (Knist.)
Erg	ohwas	wah, wawa (generally)
Duck	sikas	uspaecus (L. Island)
Fish	manca, nameu	namas, nemas, namose (Nar., Etch., Aben., Mam., Shaw., Sauk., Menom.)
Red	mokesenom, mikio	misikwa, mishkwa, &c. (generally)
Strong	miskappe	miskwi (Nant.)
Old	nahpe, apia	appitzi (Chip.)
Warm	kasetotzu	asetowon (Moh.), kesipetai (Etch.), keshanta (Ottaw., Del.)
I	nisto, bistoa	nitha (Knist.), n, characteristic
Thou	chrisio, kistoa	kitba (Knist.), k, do.
He	ootowe, wistoi	wcen (Chip.), w, do.
To day	anook chukoi	anoutch (Knist.), nougoninohi (Ill.)
Yes	ah	ah, ahah (Knist., Micmacs., Ill., Shaw., Sauk.)
Three	mabbaka, nohokscum, umfrevillo	uoghloh (Moh.)

	BLACKFEET.	ALGONIANS.
Four	asoww, asowwam	aswin, neww (generally); bat nass, nass, thar ater of 2 and 3, and not of 4
Eight	nanimoww	nirwaww, nishwaswi (Old Alg., Onto.)
Nine	pakow, piukin	pakooqna, pakooqnt (Mass., Nar.), peshkoo- adok (Micmacs.)
Ten	kepo, kinpo, keepay, amfrevillo	puik, piuk, payso (Mass., Nar., L. Island)
To kill	waikke, wita	waika (Abn.), wethab (Shaw.)

The following are more doubtful.

Face	ustukus	mskzruk (Mass.)
Hand	oh kittakw, utahstah	tee kooche (Labrador)
Warrior	kwatagw	matopoliticik (Del.)
Friend	nelaka, nitokaww	owop (Nar.), nehlanaw (Sankies)
Bread	kaah quonaw	ta quana (Shaww.)
Star	kakalawa, kukatoww	johokata (Labrador)
Day	chrisatow, kishestakol	kesowow (Kuit., Labr.)
Night	owowow, kokol	tipicoww (Kuit.)
Wind	awpowa, awpi	waupi (Nar.)
Ice	asowowotah	owpaw (L. Island)
Meat	akamaqois, akakuyi	akawokow (Abn.)

ABBREVIATIONS.

NORTHERN.	EASTERN.	WESTERN.	SOUTHERN ATLANTIC.
Alg., Algonkins	Micm., Micmacs	Miam., Miams	L. Is'd, Long Island
M'k. Alg., M'Kenzie's	Etch., Etchemins	Ill., Illinois	Del., Delaware
Algonkins	Abn., Abenakis	Men., Menomones	Nant., Nanticokes
Kuit., Knistinaux	Mass., Mamechuette	Sank., Sankis	
Chip., Chippewas	Nar., Narragansets	Shaw., Shawwam	
Otow., Ottowas	Moh., Mohicans		
Labr., Scotch, Shesha- tipowsh			

SS.

AFFINITIES OF THE BRYENNE WITH LANGUAGES OF THE ALGONKIN FAMILY.

Out of 47 words, 13 certain and 25 more distant affinities.

	BRYENNE.	ALGONKIN LANGUAGES.
Two	ash	nish, Sank, Shaww.; nias, Abn., Mass., Nar., Long Is'd, Nant.; nins, nishok, &c., nine other tribes
Five	naw	nnon, nandw, nawan, naw, nanc, nawan, Moh., Otlow., Chip., Micm., Etch., Del.
Ten	mahtote	makatoww, Shaww.; matawew, Miam., Menom.; witasat, Kuit.; wadaww, &c., four other tribes
Bone	owowut	okw, Chip.; o kwan, Otlow.; o kwah, Sank.; oq kwaw, Menom.; kawn, Nant.; nekow, Mass.
Belly	ma tosh abe	weitske, Miam.; wacktey, Moh.; mitti, Kuit.; wiskimoot, Old Alg.
Earth	wick	awiskaw, Menom.; awik, Ill. (generally, awi, awi)
Clay	mahtah	maktaque, Mass.; mittik, Chip., Old Alg.; maktook, Moh.; makts- wah, Menom., Sank.; wisktook, Moh.
Wood	simmone	shimaw, chesaw, Kuit., Micm., Sank., Etch.; chimaw, Chip.
Canoe	kekoi anaw	ta kaka wah, Miam.; ta kakaw, Ill.; ta kaka, Menom.; chagawaw, chesaw, Long Is'd
Heart	biwit	wittak, Nar.; wih, Moh.; w'aw, Del.; oty, Sank., Shaww.
Hair	mik	wik kek aw, Del.; wistikah, Kuit.; wi sunk, Mass.
Fish	owow nomine	namow, n'maw, nemas, Mass., Nar., Del., Etch., Sank.; ai con caw, Illinois
Ice	mahome	ice; maktoaw, Chip., Otlow., Moh., Del., Menom., Sank., Shaww.

	SHYENNA.	ALGONKIN LANGUAGES.
Chief	webo	wowynak, woghes, Moh.
Warrior	notah	wate palitrick (pl.), Del.; motmenag (pl.), Nar.; a tak tis, Miam.
Blood	mi i	mi sk wi, Chip., Otow.; mi sk mah, mi skwa, Nar., Menom., Sauk.
Knife	mo tab ke	mates, Sauk.; makoman, Knist., Chip., Old Alg.
Ketib	ny to took	ok kook, Miam.; ok kay, Shawn.; a kook, Old Alg.
Tree	ana	mi stookook, Labr.; mi steakuk, Miam.; (generally mittik, occasionally mi stik)
Grass	moist	mos kok i, Miam.; mas hi tuak, Nar.
Leaves	ve pohits	ne peeah, Knist.; wanus pek, Mass., Nar., Moh.; xi piak, Chip.; a ppea, Micm.; Labr.
Eggs	vavots	wawak, wawak, wawak, &c., almost all the tribes of the Algonkin family
Fire	oist	stow, Moh.; suk, L. Isl'd; e sten, Bl'feet (but generally skat, shoot, skt)
Snow	letase	wa stook, Micm. (but generally kon, koop, guak)
Buffaloe	mah no	wenassok, Men.; mah tho to, Ill.
Cows		
Turkey	mah kulu	na ke wan, na ka we, nay kom, various tribes
Game	euni	ni shk, Labr.; ni kak, Chip., Miam., Ill.
Duck	siah ke san	siah upe, Miam.; she she yuk, Men.; siahos, Bl'feet (generally she ship, seap)
Beer	sahco	w'guo, Moh.; mokuk, Ill. (generally mekook, mahwak)
Large	mah	mah cheak, Moh.; mah kingur, Del.; mah shakat, Miam.
Brandy	veve mappo	probably derived from mappo, water, in almost all the Algonkin languages
Loa	mah kile	kepi katek, Miam. (very dissimilar in the various languages; a new compound word)
One	naat	naat, Micm.
Three	nah	naat, Aben.; nakka, Del.
Four	knave	wawook, Moh.; wyo, wyo, Del.; waw, waw, Knist., Old Alg., Del., Men.
Twenty	neoo	wawiteno, Knist.
Thirty	nahvo	nistoots mitkan, Chip. (generally 3x10)
Hundred	mahototoo	wataps mittans, Old Alg.; matawiteno mitteno, Knist. (generally 10x10)

Z.

AFFINITIES OF THE UPSABOKA, OR CROW LANGUAGE, WITH THAT OF THE SEDENTARY MISSOURI MINETARES, AND THOSE OF THE SIOUX.

	UPSABOKA.	MINETARE.	SIOUX.
Woman	meya-kat to	meeyai	wesah (Yanktons)
Boy		she kanja	shingo shinga (Osages)
Girl	meya katte	meeyay kanja	mee-jinga (Omahas)
Father		taniai	ina taitah (Quappas)
Mother	e kien	enka	huoco (Yanktons)
Husband	hatch ene		enoca (Osages)
Son	menark bettas,		eenek (Winnebagoes)
Face	e sa	(male) eta	etai (Dahcotas, Yanktons)
Ear	up pa		pobe (Dahcotas)
Eys	mehtah	ishtah	ishtah (Dahcotas, Yanktons, Otoes, Omahas)
Nose	buppa	appah	pah (Omahas)
Mouth	e a	ee-ee-pehappah	ea (Dahcotas)
Tongue	jayzabe	hoigh joe	deh zeh (Quappas, Osages), theysee (Omahas)
Tooth	ea	ee ee	hee (Dahcotas, Otoes, Yanktons) e-e-e (Omahas)
Beard	eha eaha		echee (Otoes, Omahas) [has]
Neck	shuhk	speeh	tashai (Otoes), pahoe (Omahas)
Arm	hazra	arrough	
Feet		itoo	see (all)
Toes	itabe ara habi	itoochankoo	seehastai (Yanktons)
Bone	hoore	eerough	hoohoo (Dahcotas)
Heart	naamef	naiah	nochtah (Quappas)
Village		ametch	otoo (Dahcotas)
House		aloo	tee, tib, tiah, (Omahas) &c.
Arrow	ah nade	wetan	wa hinto pay
Hatchet	mechepa		mazzapai (Omahas)
Knife	mita	mitame	mabee (Winneb., Otoes, Omahas)
Shoes	hoom pe	opah	houpe (Quappas)
Tobacco	hopa	owpa	

	UPPERONA.	MINUTARE.	SIoux.
Sky	am mah ko	mah pny-meeseo	mahk beehak (Dahcotas)
Sea		oh see mene	meesoojal (Omahas)
Moon	min aa tat oha	oekah	nee ca ai (Omahas)
Star	e kin	mahpaih	anipa (Dahcotas)
Day	maw pa	oh see na	
Night	o oha	o pa jee	paan (Dahcotas)
Darkness	chp pnah aka	oh pa	paixai (Omahas)
Evening	ap pah	ahpuecha	sahpa (Ottoes)
Black	shapit kat	aiah abee	
Red	hiabe eat	tailsee	tohee (Yanktons)
Blue		sheeree	
Yellow	shere cat	herai	beeys (Ottoes)
Rain	baamah	mah pai	pah (Ottoes)
Snow	beah	raipa	
Hail	mak too pah	beerai	paidsi (Omahas)
Fire	bedah	mee nee	bee, minee (all)
Water	mitane	mee rob hee	
Ice	be rooh hha	a mah	maha (Ottoes)
Earth	am ma	amaahaa sepm	
Valley	ah xee chuke	mee ee	eeeee (Wineb.)
Stone	mi	seah choo	
Bark	mahe	apai battoo see	wah pai (Yankton, Dahcotas)
Leaf	money ah pa	cur rukimhitsee	tanoka (Omahas)
Meat	a rook ka	meetspa	chapa (Yanktons), sahapah (Wineb.)
Beaver	be roppe	iah peet see	aha (Osages)
Buffalo	bish a	matahga	
Bear	dah pil sa	saanga	
Dog		ho	shu gas (Osages)
Bird		ay rahee	seento (Yanktons)
Duck	mehhaka	mee-ee	nichak
Fish	booh	nee	hohah (Wineb.), ho (Ottoes)
Warm	ahra		
I	de		mee ah (Dahcotas)
Thou	aa		dieh (Quappa)
He	sippa		neeah (Wineb.)
Who	noom cat	noo pah	pai (Osages)
Two	namena cat	namee	nompah (Dahcotas, Yanktons)
Three		topah	yameenee
Four		chee hoh	topah
Five	chi hho cat	a camai	ahkewe (Wineb.)
Six	ah cam a cat	chappo	shahkopi
Seven	sappo ah	noppopee	
Eight	noom pa pa	peeragas	
Ten	perakuk	apealemoiseo	
Eleven	ahh pe mut	apee noopeh	a key nomba
Twelve	ahh pe noomp	noopa peragas	
Twenty	noom pap paruka	nama peragas	
Thirty	namena peruka	peeragasichtee at	
Hundred	pee reek sah	peuragasichtree	
Thousand	peerek sah pera	deedah (staka)	
To speak	bedow	taha	wahqueta (I kill him), (Dahcotas)
To kill	bah paka		

SH.

VOCABULARY OF THE SHYENNE LANGUAGE, WITH SOME NOTES COMMUNICATED BY LT. J. W. ABERT, OF THE CORPS OF U. S. TOPOGRAPHICAL ENGINEERS.

The tribe which bears the name Cheyenne continually hovers about Bent's Fort. While detained at the fort by sickness, I obtained the little which I will now insert.

The Cheyenne language is considered one of the most difficult of any of those spoken by our prairie Indians.

The Indians have a great habit of swallowing the last syllable of every word, so that many persons would hardly notice the last syllables, and therefore omit them.

The Cheyennes have no articles. Their substantives are nearly as numerous as our own. Plurality and unity are generally denoted by prefixing numbers, although sometimes denoted by changes of termination, as "vo-vote," an egg, and "vo-vo-tuts," eggs.

Their numerical terms are beautifully arranged; each of the digits is expressed by a different name, and the tens are expressed by affixing certain terminations to the digits.

The numbers are thus named:

One	nast	Thirteen	mah-to-te-ote-nah
Two	niah	Twenty	ne-so
Three	nah	Twenty-one	ne-so-ote-nast
Four	knave	Thirty	nah-vo
Five	none	Forty	ne-vo
Six	nah-so-to	Fifty	no-no
Seven	ne-so-to	Sixty	nah-so-to-no
Eight	nah-no-to	Seventy	ne-so-to-no
Nine	so-to	Eighty	nah-no-to-no
Ten	nah-to-te	Ninety	so-to-ne
Eleven	mah-to-te-ote-nast	One hundred	mah-to-to-no
Twelve	mah-to-te-ote-niah		

They express thousands by so many hundreds, as 10, 20, or 30 hundreds, stand for 1000, 2000, 3000.

Their degrees of comparison of adjectives are expressed by prefixing words significant of augmentation or diminution. The adjectives to which the words are applied remain unchanged; and these words are "ba-kee," little, "mah," large, and "o-mah," larger.

Their verbs have all the principal tenses, the present, the past and the future, but are only used in one number, as the subject or subjects to which the verb belongs, and which is or are the object of conversation, render distinction of number unnecessary.

They have all the other parts of speech belonging to the languages of civilized nations.

The following are some of the words which I fortunately saved from the destruction to which my grammar

was a sacrifice during my winter's journey across the prairies:

Shell	men ne	Blanket	wo pe ahe o uua'
Rib	hip	Comb	te ha say
Cap	a-tok	Kawk-bells	ah gwa vone
Clay	a shlok	Owl	nis tah
Canoe	sin mone	Bullets	ve oe mah
Axe	ke kol ana no	Iron	mah kite
Flour	nihi ha cou	Hide	vo tan
Fiks	hay yok	Back	is tata tom
Spear	ho moan	Belly	mah tonah she
Shield	hoah	Egg	va vote
Kettle	my-to-took	Vermillion	ve mi turn
Marrow	alm	Wagon	ous chin
Salt	no pah mah	Stone	oun nak
Moose	o-ka	Tallow	iroh ke
Knife	mo tah ka	Blirror	am vo am is tum
Road	me oh	The 'pomme blanche'	mo o tah
Path	ka-ko me oh	Mexican poppy	ish co
Robe	home	Rattlesnake	she she note
Quiver	is ta	Wild gourd	sert sin bow
Tree	eat	Cactus	mah tah
Grass	moit	Cherry	mah ne mick
Bush	ka-ko-ast	Lizzard	how tah wis
Ball (game)	an nist tah ko	Gopher	is te mah
Race	ouo she	Sun-flower	how e gas
Fire	out	Raccoon	mach ooon
Woods	mah tah	Water-soaks	ho e ka
Sword	ho watt	A gourd	mah au
Ice-ber	mah ome	Hair	mik
Dance	mah tato nte	Hill	pe e nus
Drum	os se ah vome	Mountain	o mi
Song	mah nis tata	Marriage	o vis tah om
Toad	own-bi	Elk	Ma ah
Turtle	mine	Ground-squirrel	menny wah kale
Pool	mah sowa ne	Badger	mah co
Soldier	no tah	Bear	mah co
Chief	we ho	Antelope	vo ka
Goose	an ni	Turkey	mah ka in
Truth	ni tom	Chicken	oo co va kine
Duck	siah ka sun	Butterfly	a wow chin
Heap	highat	Pitcher-bug	ah me cone
Asbes	pah i	Tarantula	we nos
Coals	ho na	Small beetle	mehah kis
Blood	mi i	Bee	ha nome
Dew	is-shin-e-o	Centipede	me ahim me
Fruit	ve po hta	Plum	men ne mie
Leaves	o to mo es	Asclepias	mah ton I mist
Roots	ve oe map pe	Buffalo's skull	mah to bah milk
Brandy	moi su kuh	Prairie-snake	sa so alt tan
Flint	ho pam	Buffalo bull	o to wah
Steel	mah imits	Buffalo cow	mah no
Cough	mi tan o	Antelope's head	vo ka bah mik
Gun	hi wit	Fish	oo co no mies
Heart	o co nate	Young badger	te hon
Bone	ta tato its	Big grasshopper	mah hah coat
Fear	ome	Rattlesnake-wood	iah oq woh
Blow	ne nun she us	Myrtina	manco
A place	is ta se	Devil's needle (insect)	a wo we tna
Snow	oht	Winged-bear	mah co enene
Gown	a un	Yellow-wolf	o cum who wust
Beads	o-ne-a-vo-kist	White antelope	o-ka-vo-ka

VERBS

To shoot	po se vone	To boil	is se vote
To cover	em ho ni	To undo	o ne ine
To ride	o tah ho ist	To write	mo quis tun
To hide	se know oht	To break	o s ta
To roast	ah so tnt	To wrap	ip po nat

SECTION II.

GRAMMAR.

ALL those who have investigated the subject appear to have agreed in the opinion that, however differing in their vocabularies, there is an evident similarity in the structure of all the known American languages, bespeaking a common origin.

The Spanish missionaries have published a great number of grammars, which, though at a time when philology could hardly be called a science, have supplied us abundantly with facts and materials. This applies particularly to those semi-civilized and populous nations between the tropics, which are still in existence.

The materials for a similar investigation of the grammar or structure of the more northern languages are, as might be expected, few and incomplete. There is generally no sufficient motive for investigating the structure of the languages of nations having neither history or literature, and subdivided into a multitude of very small tribes, each speaking a distinct language. Indian traders want nothing more than a scanty vocabulary; and we have but two sources of correct information.

Missionaries alone have, in their efforts to convert the Indians, a sufficient motive for investigating their languages. All are not competent to the task; and in several instances it has now become easier for the Indians to learn English, than for the missionaries to attain a competent knowledge of the Indian tongue. As yet, however, it is from them alone that almost all our information has been derived.

Amongst the educated Indians some have been found, and more may arise, who can assist greatly in the inquiry.

I am quite unequal to the task of a philosophical investigation of this difficult subject. My knowledge of languages is extremely limited, and that of grammars almost

exclusively confined to those of the languages belonging to the European branches of the Indo-European family.

The process by which languages are gradually formed, and a clear conception of the fundamental principles which distinguish those of America from those of other parts of the world, are subjects beyond my competence. Although I perceive and am satisfied, of the similarity of character, in the structure of all the known American languages, I cannot define with precision the general features common to all. I can only state those which, on a very superficial view of the subject, have struck me as characteristic; and it is with unfeigned diffidence that I submit some general and desultory observations.

We must, in the first place, guard against error. Some very striking features will be found, which are not universal or even general, but belong especially to one family.

The distinction between animate and inanimate objects is natural. There is perhaps no language in which some trace of it is not discoverable. Yet it is positively asserted that no such distinction exists either in the Choctaw, Eskimaw, or the Muskhog. It has not as yet been positively discovered, in any other of our Indian languages than the Algonquin, the Iroquois, and the Cherokee. My limited materials have not enabled me to discover in the Sioux any inflexion of that description. But nice distinctions may, in a purely oral language, escape the notice of the inquirer, if their application should happen to be limited to a few particular cases; and of this, at least one instance in point may be given.

I had, in order to institute a useful comparison, examined Father Febres' excellent Grammar of the language of Chili. The distinction between animate and inanimate, which was not adverted to by Molina, is there pointed out but incidentally, and only in a single case. The particle *pu*, prefixed to nouns, is the common sign of the plural, and is properly applicable to animate, though sometimes used for

inanimate objects. But the proper designation of the plural for the inanimate class, is the termination *ica*, substituted for the *pu* prefixed.

This distinction pervades the languages of the Algonkin family to such an extent as to have become their most striking feature. Every part of speech, every word is affected by it. It is defined by Mr. Schoolcraft as the gender of the language, and of so unbounded a scope as to give a twofold character to the parts of speech. But this is the distinctive character of this family; and although it prevails to a considerable extent in several others, it cannot be considered as being either peculiar or common to all the American languages.

It seems that there is at this time a discussion between two of the great German philologists. The justly celebrated Bopp is said to contend for the analogy of the American languages with the Sanscrit; whilst Mr. Buschman insists that they are altogether distinct. I cannot believe that either of those distinguished men is altogether mistaken. The distinction between the (so called) parts of speech, of which the noun and the verb are the most prominent, is founded in nature. The wants which influence the formation of languages, are to a considerable extent the same for all men. It seems therefore impossible that there should not be some features common to all languages. On the other hand it appears equally certain that, independent of its vocabulary, every family of languages, and in each family even every language or dialect, has characteristics which distinguish it from every other language.

The distinction between animate and inanimate objects is evidently derived from nature; and it has already been observed, that there is perhaps no language, in which some trace of it is not discoverable. There can be little doubt, that originally the neuter gender, as it is called, was intended to include all inanimate things. The principle is

preserved in the English language, but is exhibited only in the third person singular of the pronouns *it*, *its*, to which must be added the relatives *which* and *what*. The principal reason, why the distinction is not more extensively diffused throughout the language, is the fact, that the English adjectives are indeclinable. Had it been otherwise, had the adjectives been declined as in the Latin (*bonus, bona, bonum*), and the agreement between the substantive and the adjective been of course preserved, the distinction between animate and inanimate would have appeared to be one of the predominant features of the language.

In progress of time, probably before the art of writing was known, the forms first used only to designate the natural genders of living beings, appear to have been gradually extended to inanimate objects. In the Greek and Latin, the masculine and feminine forms have to a great extent invaded the province of the neuter. When the Latin was by the admixture of foreign elements, broken up into the modern languages of Southern Europe, this process was carried on still further. For instance the French language, which is derived immediately from the Latin, has rejected altogether the neuter gender. The consequence has been, that there is apparently no distinction, in that language, between animate and inanimate. Yet some faint traces remain. The possessive pronouns of the third person, *son, sa, ses, leur*, cannot be applied to an inanimate thing (unless its name should be expressed in the same sentence). Thus you must not say: "Paris est beau, j'admire *ses* batimens;" but, "j'*en* admire les batimens:" *en* means there of *it*; and *ses* means *his* or *her*, and cannot be used as meaning *its*. Again, the relative, *qui*, preceded by a preposition, is never applied to inanimate things; thus you must not say, "les sciences à *qui* je m'applique," but "les sciences *aux* *quelles* je m'applique." (Lhomond's Grammar.)

The object of these remarks is, to illustrate by a familiar

instance the position, that there are general features which belong to all languages. It appears to me probable, that similar instances may be adduced applicable to other general features. In the further investigation of the subject, it may perhaps be found that the several languages differ generally, if I may be permitted to use the expression, rather in quantity than in quality. As the wants which produced languages and the objects in view were similar, the difference must have principally been that of the process by which these objects were attained.

Without pretending to make a complete and correct enumeration, it may be said generally, that the principal processes resorted to in the American languages are inflexions, coalescence or agglomeration, and the use of numerous particles prefixed, suffixed, or inserted.

The great philologist William De Humboldt considers the process of agglomeration or agglutination, as the principal characteristic of the American languages, and which distinguishes them from those which like the Sanscrit are highly inflected. Although our learned and highly gifted associate, Mr. Wm. W. Turner, translated for me with great care those portions of Baron De Humboldt's essay which bear on this subject, I cannot say that I understand fully the author's meaning, especially his definition of inflexions, and the specific character by which it is according to him distinguished from every other modification of the primitive word. I am very sure that the fault is mine; but I am nevertheless compelled to remain satisfied with our common notions of inflexions as heretofore generally understood. These notions were taken from the classical languages, principally and almost exclusively from the Latin.

The object intended was to distinguish certain differences, some of which from their nature applied to nouns, and others to the verb. It seems obvious that the distinctions of number (singular and plural), of person (in the

pronouns), and of gender (animate and inanimate, male and female), as also that between the subject and the object (cases), belong exclusively to the noun, including attributes and pronouns. On the other hand the distinctions of time, of voice (active and passive), and of the modifications called moods (indicative, imperative, conditional, etc.), to which may be added the formation of the class of words called participles, apply exclusively to the action, to the verb whether transitive or intransitive.

The process by which the object was attained was, in the Latin language, without exception, by a change of termination. In some instances these may have preserved a faint resemblance to the words for which they were substituted; but to a common observer they appear generally to be altogether arbitrary. The final letters, *s* and *t*, which characterize, in the verbs, the second and third person singular, have no apparent resemblance to the corresponding pronouns. All these inflexions consist of one or more letters added to what may be considered as the root of the noun or verb. The letter or letters which are substituted for the nominative case of the pronoun, appear always as connected with the verb and as its inflexion; but the oblique case of the pronoun is, in no instance whatever, thus connected with the verb and appearing as it were its inflexion.

We have not, for our Indian languages, materials sufficient to enable us to lay down universal rules applying to all of them. But it may be asserted with confidence, that among those which have been investigated, there is not one which, in its declensions or conjugations, does not afford instances of inflexions, of the same character with those of the classical languages. It will also be found, in comparing these inflexions of the several Indian languages, that they are generally used in all for the same purposes: in the nouns, to designate the number and the gender; in the verbs, to designate the tenses and voice; &c. Thus, with respect to the number, we have

Eskimau—in which the dual termination is *k* and the plural *t*; *iglo*, house; pl. *iglut*.

Mass'te—*nunaquau*, girl; pl. *nunaquau og*; *huseun*, stone; pl. *huseun ash*.

Chippewa—*pinai*, partridge; pl. *pinai wug*; *assir*, stone; pl. *assin een*.

Delaware—*okhqua*, woman; pl. *okhquewak*; *akhsin*, stones; pl. *ackeinall*.

In these last three, which belong to the Algonkin family, the distinction of gender (animate and inanimate, or neuter) is also designated by the terminating inflexion.

Iroquois (Onondago), *hudagoohoneh*, a chief; pl. *hudagoohoneh suh*; the plural is also designated by the terminations *nnie* and *agu*, varying according to usage. But the sign of the plural is often inserted, *nah jenah*, a man; *hah da jenah*, men.

This family of Iroquois languages is the only one of our northern Indians, in which the masculine and feminine genders are clearly distinguished. This is generally effected by the substitution of an inserted letter.

Onondago—*sajadat*, a male; *agajadat*, a female.

Huron (Wyandot)—*Ihaton*, he says; *Isaton*, she says.

Athapasia—*dinné*, a man; pl. *dinné thlang*; *see axc*, my son; *see asekek*, my two sons.

Cherokee—*tlukung*, a tree; pl. *te tlukung*; *at outsu*, a boy; pl. *amitoutsu*.

Araucanian—*chao*, father; dual, *chaoegue*; pl. *puchao*; *cume chao*, a good father; pl. *cumeque chao*.

Sioux. The sign of the plural, at least in the Dahcota language, appears to be, in all cases, the termination *pee*: *watah*, a canoe; pl. *watahpee*.

Nouns in the Choctaw and in the Muskhogh (Creek), have no plural form. This defect is often supplied by the plural form of the possessive pronouns, to which they are united. Some adjectives have also a plural form. In many instances, the plural is designated by the annexed word, in Choctaw *okla*, in Muskhogh *ulgy*; both of which mean "a multitude."

Among the examples of the formation of the plural of nouns, several instances occur where the sign of the plural, instead of being a termination, is either prefixed, or insert-

ed (Cherokee, and occasionally Iroquois and Araucanian). It appears to me, that the change of position cannot alter the character of the sign, and that, whatever place it may occupy, it is still an inflexion.

The noun in most American languages has no oblique case. Whether there be any exception, cannot be positively asserted. The defect (if any) is often supplied by the insertion of the oblique case of the 3d person of the pronoun. "I see *him* Peter."

In the conjugation of verbs, there is no inflexion or alteration of the verb itself, on account of the difference of number or of persons. The change applies only to the pronouns. But the distinctions of time, of voice, sometimes of mood, and also the negative form, are designated by pure inflexions.

EXAMPLES.

		THIRD PERSON SINGULAR.				
		Active Present	Præterite	Future	Passive Present	
<i>Delaware</i>	<i>Pendamen</i>	<i>to Act</i>	<i>pendamen</i>	<i>pendamen ep</i>	<i>pendamen ish</i>	<i>penda zu</i>
<i>Choctaw</i>	<i>Takobe</i>	<i>to tis</i>	<i>tookbe</i>	<i>tookoh ikame</i>	<i>tookeb achi</i>	<i>t ull oekbe</i>
<i>Cherokee</i>	<i>Lung lung</i>	<i>to tis</i>	<i>lunglha</i>	<i>lung lung hi</i>	<i>lunglung li</i>	<i>aga lung wag</i>
<i>Sius</i>	<i>Tabeng</i>	<i>to love</i>	<i>tabeng</i>	<i>tabeng keng</i>	<i>tabeng keng</i>	not known

A peculiarity in the Choctaw language deserves notice. An inserted particle, *ull*, denotes the passive voice; but the personal pronoun, instead of being as in our languages in the nominative, is in the Choctaw in the objective case. Instead of saying, 'I (am) tied,' '*tullochille*,' they say, 'me (am) tied,' '*suttulloche*.'

There may be some doubtful cases, such for instance as a declension in the Massachusetts language, given by the venerable Eliot:

my house, *neck* in my house, *neck it*
 thy house, *keck* in thy house, *keck it*
 his house, *weck* in his house, *weck it*

There is no doubt of the fact, that the Indian word for, my, thy, &c., house, is *neckit*, *keckit*, &c., (in the plural *neckuwout*, &c.) but Eliot considers this English *in*, as an oblique case of the noun, and, as it would seem, the equiv-

alent Indian termination *it*, as an inflexion. But I think that this *it* is probably one of those numerous particles, having a general meaning, which are perpetually found either prefixed, inserted, or added to Indian words. Setting these doubtful cases aside, the terminations which designate number and gender in the nouns and pronouns, tenses, mood, and voice in the verbs, prove conclusively, that the Indian languages abound with inflexions, having precisely the same character with those, which are universally considered as such in other languages.

In all the American languages which have been investigated, the possessive pronouns united with the noun, and the personal pronouns, in both the nominative and in the oblique case united with the verb, form but one word. *My father, thy son, I love thee, he sees me*, are each respectively but one word. It is well known that the same feature is found in the Hebrew and other Semitic languages. In these the process is extremely simple and is founded principally on position. The ways, in which this union of the pronoun with either the noun or the verb is effected in the American languages, are almost universally far more complex; and there is a great variety amongst the several families of languages.

In all those of the Algonkin family, the preference is given to the second person, the characteristic of which is *k'*; the first person, the characteristic of which is *π'*, stands next; and the third person, often omitted, is the last. Accordingly the initial *k'* shows that one of the pronouns is of the second person; the initial *π'* that the pronouns are, one of the first, and the other of the third person; and the initial *w'* (or no initial prefixed to the verb proper) that both pronouns are of the third person.

Thus far the process is very incomplete. But in all the American languages special attention is paid to what is called the transition, that is to say to the persons of the subject and object respectively. This produces, for the

singular alone, seven forms, viz.: two when the action passes from the first to either the second or third person; two when the action passes from the second to the first or to the third person; and three when the action passes from the third to the first, second, or third person.

In the Algonkin languages the process is effected, by affixing immediately after the verb a particle, which may be called the sign of transition; viz. *a*, *awa*, when the action terminates in the third person; *g*, or *k*, when the action passes from the third to the first or second person; *l*, when it passes from the first to the second; and *i* when it passes from the second to the first person.

Thus, the infinitive of the verb, to hear, is in the Delaware language *pendamen*; but the root proper of the verb is *pend*.

Thou hearest him	k' pend awa
I hear him	n' pend awa
He hears him	pend awall
He hears thee	k' pend agun
He hears me	n' pend agun
I hear thee	k' pend oten
Thou hearest me	k' pend awi

With respect to the signs of the plural of the pronouns they are always placed after the verb and the transition particle; and though formed in a regular manner, they are very complex, inasmuch as they must vary in order to show distinctly, whether the subject, or the object, or both is or are in the plural. For details I beg leave to refer to my Synopsis, in which this subject is treated at large. A few examples will suffice:

We hear thee	k' pend ole neen
We hear him	n' pend awa neen
Thou hearest us	k' pend awi neen
Thou hearest them	k' pend awa wak
We hear you	k' pend olo hena
We hear them	n' pend awa wunawak
Ye hear us	k' pend awi henook
They hear you	k' pend agu wawak

The system is very complete ; the meaning cannot in any instance be mistaken ; but it is most unnecessarily complex and cumbersome ; yet remarkable as a singular feature in the history of the formation of languages.

The process in the Choctaw language is on the contrary very simple, yet, differing from that of the Hebrew and kindred languages. For although the position is regular, the distinctions are not founded upon it. There are distinct words for the nominative and oblique cases of the two first persons, in the singular, dual, and plural. The pronoun of the third person is altogether omitted in the singular ; in the plural it is supplied by a word meaning, "multitude." These words are :

I, <i>ih</i> ;	we (dual, or definite) <i>s</i> ;	we (indefinite plural) <i>ehs</i>
me, <i>nah</i> ;	us " "	<i>pit</i> ;
thou, <i>is</i> , <i>ish</i> ;		<i>ns</i> " "
thee, <i>ahit</i> ;		<i>ye</i> " "
		<i>you</i> " "
		<i>Anppit</i>
		<i>Ans</i> they, <i>ahis</i>
		<i>Auchit</i> them, <i>ahis</i>

I tie thee		<i>chit</i>	<i>tokch</i>	<i>ih</i>
I tie him			<i>tokch</i>	<i>ih</i>
Thou tiest me	<i>is</i>	<i>sut</i>	<i>tokché</i>	
Thou tiest him	<i>ish</i>		<i>tokché</i>	
He ties me		<i>sut</i>	<i>tokché</i>	
He ties thee		<i>chit</i>	<i>tokché</i>	
He ties him			<i>tokché</i>	

In order to form the dual and plural, it is only necessary to substitute the words which designate them respectively.

In the preceding examples we have given the forms assumed by the pronouns, either as possessive and united with the noun, or as united with the verb in conjugations. In almost all the American languages, these two forms are identic or similar ; and among the verbal forms, there are always some in which you may recognise the pronouns when used alone or in an absolute sense. It may therefore be asserted that, whatever may be the case with other languages, the connection in those of America, between the original pronouns and the words substituted for them in the

conjugations is almost universally visible. Yet there are almost always, in the transitions, some forms of the pronouns, either subject or object, which have no visible similarity to the absolute pronouns as now existing; and these forms consist often, as in the Algonkin, of signs known by the name of "particles of transition."

A feature common to all those compound conjugations is the attempt to attain great precision, which is indeed a general characteristic of the American languages. The pronouns of the first and second person in the singular number are alone of a determinate character. The plural *we* and *you*, and the pronoun of the third person, both in the singular and plural, are in themselves vague and indeterminate. There is no American language in which an attempt has not been made to correct that defect. In all the Algonkin languages, there are two plurals of the first person, called respectively inclusive and exclusive, the first of which includes and the other excludes the person spoken to. The first means, "I and thou," or, "I and ye;" the second, "I and he," or, "I and they." It has already been seen that a somewhat similar distinction exists in the Choctaw.

In the Wyandot, the distinction is made in the same manner between *thou and I*, and *he and I*. Instances: we set off, thou and I, *kiarascooa*; we set off, he and I, *aiarascooa*; and the same distinction is made between *ye and I*, and *they and I*.

In the Cherokee, the distinctions are still more numerous, specially in the plural of the first person; besides which they have also a dual proper. Thus, instead of the vague expression *we*, there are distinct modifications meaning respectively, "I and thou," "I and ye," "I and ye two," "I and he," "I and they," "I and they two;" also united with the dual, "we two and thou," "we two and ye," etc.—and in the plural, "I, thou and he or they;" "I, ye and he or they;" &c., &c. In the simple conjugation of the present, of the indicative, including the pronouns in the nom-

inative and oblique cases, there are not less than seventy distinct forms. These distinctions render it extremely difficult to acquire a competent knowledge of the Cherokee. This is further increased by other nice distinctions, in reference to the verb, the various forms of which denote, whether the object be animate or inanimate; whether or not the person spoken of, either as agent or object, is expected to hear what is said; and, in regard to the dual and plural numbers, whether the action terminates upon the several objects collectively, as if it were one object, or upon each individual considered separately. *Ga-tsi-ya-lung-i-ha*, I am tying them (those persons) together. *Te-ga-tsi-ya-lung-i-ha*, I am tying them, each separately. These complex forms appear to be amongst the longest words of the language: *wi-ti-ski-ya-ti-nung-sta-pung-gi*, lead us into.

The extreme precision of the Indian languages is exhibited in various other ways. There is an abundance of specific names for every object or action susceptible of distinction; whilst on the other hand, they have but few generic designations or words. The instance of a word in the Choctaw, signifying the oak tree, is an exception. In the other Indian languages there is a specific name for each species of that tree, but none for the oak generally. This is the reverse of our European languages. We always use the generic term, and distinguish the species by attributes (white oak, black oak, red oak, etc.).

This precision is also exhibited in the different names, by which all the American nations distinguish the various degrees and modifications of relationship; such as, the elder brother, the elder sister, and the younger ones; the paternal or maternal uncle, &c. As connected with this particular illustration, it will be observed, 1st, as a feature common to all the American nations, that women use different words from men for those purposes; and that the difference of language between men and women, seems in

the Indian languages to be almost altogether confined to that species of words, or others of an analogous nature, and to the use of interjections.

2dly. That, in several of the languages, nouns expressive of relationship are always connected with possessive pronouns, and cannot be used alone and independently. This is conclusively proved for the Wyandot language (by the French called Hurons). The same feature appears in several other languages; and it remains doubtful, whether it be not common to almost all of them.

The same character of precision, and of speciality, is also found in words expressive of actions. Thus the Esquimaux (Mithridates and Krantz) have a distinct word for every thing or *action*, if it requires the least distinction. Thus they designate with a peculiar name animals of the same species, according to their age, sex, and form; and what we call in general "to fish," has a distinct name for every species of fish (or rather for every distinct mode of fishing). All the American languages abound with similar instances.

One of the most striking features of the American languages is their well-known tendency to make over-compounded words, accumulating in a single one a number of distinct ideas. The compound conjugations called transitions, are but one instance of that tendency. Unfortunately, although there is a multitude of compounded words, the meaning of which we know, there are but few which have been analyzed by competent judges, so as to show with precision the primitive words from which the word is compounded. For instance, I have lived twenty years on the banks of the river Monongahela; and the meaning of that word is, by Indian tradition, generally known to be, a river the banks of which fall in. This expresses with great precision the peculiar characteristic of that river. All the names indeed of places, whether rivers, mountains, or other localities are, as well as many proper names, significative.

But I have been unable to ascertain from what primitive words this word "Monongahela" was formed. *Mon-ah-ela*

We know generally that the manner of compounding words differs among the several American nations; that nouns, verbs, prepositions, and adverbs enter into the composition of words, occasionally unchanged, but, as far at least as relates to nouns and verbs, generally abbreviated; and that there is a number of terminations, sometimes of inserted words, having a generic character, and never used alone.

The family of languages with which we are best acquainted is that of the Algonkins. It seems that the process of abbreviating words, and blending them together into one, has been carried there to the greatest extent. Selecting one syllable, probably the root, from several distinct words [occasionally from four or five], one single compound word is formed, in which all the various distinct ideas contained in these several words are combined. For examples of such compounded words, as well as for the most complete general view of the languages of that family, I must refer to Mr. Duponceau's prize essay. Some additional illustrations for the same family have been supplied by Mr. Schoolcraft. But to that which is already known of that important branch of the structure of the American languages, I can add but a few desultory observations.

It seems to me that the mode of making compound words, by the insertion of particles for the purposes and to the extent to which it is carried in the American languages, particularly in reference to the verb, by whatever name called, constitutes a distinct class, which will be considered when speaking of the modifications of the verb.

The simple coalescence of words is very properly designated by the term agglomeration; which is specially applicable to the union of nouns with nouns. All the American languages abound with words composed of the union of substantives with attributes. But in those of the Iroquois

family, a distinction is made between the adjectives, or attributes which may, and those which may not thus coalesce. Among the words formed by the coalescence of substantives with substantives, a great many express possession, or are equivalent to the genitive case, corresponding with such English words as, "a man's house," "Peter's father." But words consisting simply of the juxtaposition of two substantives appear to occur but rarely. They seem to be less common than in the English language, in which we find a multitude of words such as the following: seaman, horseman, carman, coachman, etc., locksmith, silversmith, etc., handspike, candlestick, hencoop, foxhound, cupboard, millstone, etc., etc. It may be affirmed, that in this special class of words, the designation of agglomeration is more applicable to the English, than to the American languages.

Amongst those compounds which are derived from words never used alone, we find in the Choctaw, *isht* a cause or instrument; *a* or *i* meaning *place where*; *ushe* offspring; *uppe* a stalk or trunk; from which last and *nusse* an acorn, *nussuppe* the acorn tree, a generic term for the oak. Such are also, in the Chippewa, the following which have been supplied by Mr. Schoolcraft. From *abo* which means, a liquid, liquidity, and is never found except in composition, *shominabo*, wine, from *shomin*, grape; *totoshabo*, milk, from *totosh*, the female breast. A still more numerous class of compounds is derived from *jeigun*, or *gun*, meaning *instrument*, words also never used alone. To that class belong *opwagun*, a pipe; *sheemagun*, a lance, &c. In the same language, the termination *win*, is used for the purpose of forming abstract nouns expressive of qualities. In the Delaware, also an Algonkin family, the termination is *gan*; and, in a most distinct and distant language, the Araucanian of Chili, the termination *gen* answers the same purpose. Thus in the Chippewa, from *minwaindum* he (is) happy, is derived *minwaindumowin* happiness; in the Delaware, from *wulisso* pretty, *wulissowagan* pretti-

ness; in the Chilian, from *cume* good, *cumegen* goodness. In all three the termination corresponds with the English; *ness*.

The analysis of the following Chippewa words has been supplied by Mr. Schoolcraft. The first is an ancient Indian word, and remarkable in that the primitive words are preserved entire without any abbreviation. The two other are modern words, devised by the Indians to express objects previously unknown to them.

Monganebajegun, a snow shovel, from *monga* to enlarge, *neba* to sleep, and *jegun* an instrument. The original meaning of the word is, an instrument to clear away the sleeping place, viz. to clear away the snow.

Wassakonaijegun, a candle; from *wassaan*, a bright object, *kona*, abbreviated from *biskona*, a blaze, and from *jegun*, an instrument.

Keeshkoodjegun, a pair of mufflers; from *keeshk*, to cut, *kood* derived apparently from *biskona* and *jegun*, an instrument. I differ from Mr. Schoolcraft with respect to the syllable *kood* which cannot, by any legitimate process of etymology, be derived from *biskona*. *Kood* appears to me to be clearly derived from *skut*, fire, in almost all the Algonkin languages; the *s* is omitted by the Mickmacs (*bookteoo*) and the Miamis (*kohteweh*).

The following examples of the names, in the Iroquois language, of various places, are extracted from an interesting paper lately read by Professor Oran W. Morris, before the New-York Historical Society:

One-yu-tah [Oneida]; a *standing stone*.

On-on-dah-yah; *on the hills*, where the great council fire of the Iroquois was kept burning.

On-on-dag-bara; *the place between hills*; now Onondago Hollow.

Ga-nun-da-gua [Canandaigua]; a *town set off*; as some Senecas were sent there to establish a settlement.

Gah-ta-ra-ke-rae [Cattaraugus]; *stinking shore*; from the fish, &c. cast on the shore of the lake.

Cah-no-a-lo-hah, a *skull on the top of a pole*; the place where the Oneidas live.

Osah-rah-ka [Saratogo]; *the side hills*.

Che-on-da-ro-ga [Ticonderoga]; *noisy*; caused by the dashing of the waves against the hollows in the rocks.

Can-a-jo-ha-rie, *the pot that boils itself*.

O-taha-ta-ka [Chatanque]; *foggy place*.

Skan-e-at-e-lea, *long*; the lake is fifteen miles long and only one and a-half wide.

Ni-a-ga-ra, *across the neck.*

Ca-hooe, *falling canoe.*

Scho-ha-rie, *drift wood.*

Gen-his-hee-yo, *the pleasant valley.*

I am inclined to think that the length ascribed to compounded Indian words has been exaggerated. Many modern ones have been invented by missionaries, occasionally for the purpose of expressing some religious dogma, of which the Indians had no previous notion; often, in order to show to what length words might be compounded in conformity with the genius of the language. The number of words which exceed six syllables is, in most of the spelling-books of the various tribes, very limited. It may be that in several instances, those sentences which have been written, as if they formed but one word, are in fact pronounced by the Indians as distinct words. It must be recollected that all the American languages have been learned by the missionaries and other Europeans, only through the ear, and that they have been written with our alphabet, in the way to which the hearers were used in their own languages. If an Englishman, wholly unacquainted with the French language, undertook to learn it in France, exclusively through the ear and without ever looking at a single written book, he might write the following sentences as if they formed but one word :

Elle t'aime, ellaym; elle te voit, elitwa.

There are in the American languages several words composed of a verb and of a noun governed by that verb. Similar words are frequent in the classical languages; but there is, as it seems to me, an essential difference between them.

The Delaware word, *nadholineen* is composed of *nad*, which is derived from the verb *naten*, to fetch; *hol*, from *amochol* a canoe, and *ineen*, which is the verbal termination for us. The word means: "Bring [or fetch] the canoe to us." This is the imperative form of a verb meaning, I

bring, or he brings the canoe to you or to them, which may be conjugated like any other verb, with all its pronominal varieties, its inflexions, etc. But the verb is always taken in a specific sense. It always means, "to bring or fetch the canoe;" it expresses a specific act; it has no general meaning; it does not mean, "to bring generally a canoe." The reverse is the case in the similar verbs of the classical languages.

Thus, the Latin words *ædifico*, *belligero*, *nidifico*, do not mean to erect a particular building, to carry on a war against a particular nation, to make a certain specified nest, but generally, to build, to make war, to make nests.

Verbs of a similar character are still more common in the Greek language. Selecting the word *φιλος*, on account of its numerous compounds in our modern languages, and opening a lexicon, it will be found indeed that the compounded nouns are more numerous than the verbs. Still many such compounded verbs are given, as *φιλογραμματεω*, *φιλογραφω*, *φιλοδοξω*, *φιλοδеспοτεινομαι*, *φιλανθρωπεω*, all of which are of a generic, and not of a specific character. They are not expressive of a love, or preference, for a specific book, picture, glorious act, despotic prince, or any one man particularly. They express only a general love of literature, painting, glory, arbitrary power, mankind.

It may be that, in their progressive formation, specific had, in the classical languages, preceded generic or abstract words; but this cannot with certainty be known to us. They have come to us in an improved form, that is to say, after the discovery of the alphabet and after they had become written languages. We do not know what they were previously and when only spoken. We can only form conjectures respecting the history of their progressive formation. Whatever this may have been, it is certain that the grammar of the earliest specimens of their written languages does not differ materially from that of their latest authors.

That which we do know is that, in the formation of the American languages, the process has been to commence with specific verbs, and that when it is desired to give them a general meaning, this is effected by the insertion of an adverbial particle which means, *habitually*.

Some further analogies between the American languages and the English may not be uninteresting. There is in both a tendency to convert nouns substantive into verbs; but the process is reciprocal in the languages of America, and they are generally distinguished by a different termination. In the English, there is a multitude of nouns and verbs which are spelt in the same manner, and to the eye appear identical. Yet when not monosyllables, they are generally distinguishable to the ear, by a difference in the syllable on which the accent is placed. I will here observe that, as far as my knowledge extends, all the Indian languages are strongly accented, and that this should be attended to by all those who compile vocabularies or grammars. The strongest accent appears to me to be generally placed on one of the two last syllables; and the penultimate syllable is often, not only accented, but remarkably long in quantity.

I do not perceive any essential difference in the mode of forming highly compounded words, between the Indian languages and the English. Take, for instance, "incompatibility."

In, is here a negative particle, but often used in the same sense as the Latin preposition from which it is borrowed, as in the word *inherent*.

Com, or *con*, a preposition denoting union.

Pati, a Latin verb, to suffer, to bear, never used alone in English.

Ble, from the Latin termination *bilis*, denoting capacity of being. ("Comprehensible," that which may be understood.)

Ness, a true English termination; an inclusive particle, denoting the abstract quality of being all that precedes in the same word. It does not differ essentially, if at all, from

the termination *ity*, or *ty*, derived from the Latin *itas* (French, *ité*, or *té*) ; thus, incompatibleness, incompatibility, complexness, complexity ; and its meaning is very similar to that of the English and German termination *hood*. We have alluded to its equivalents in several Indian languages.

A multitude of other English words, which may be dissected in the same way, such as, incomprehensibleness, incommunicableness and incommunicability, incompressibility, congregationalist, &c., &c., do not differ essentially, either in the number, nature, or arrangement of the elements of which they are composed, from a large portion of the Indian compounded words.

But there is no doubt, from all the investigations which have heretofore been made, that the most remarkable and characteristic features of the American languages are to be found in the verb.

The earliest missionaries from Spain, France, and England, were struck with the fact, that nouns, whether substantive or attributes, and even other parts of speech, might be conjugated like verbs. This peculiarity is almost exclusively due to the absence of the substantive verb as an auxiliary.

Whether there be, in the American languages, a true substantive verb, that is to say, one that conveys the abstract idea of existence, is a controverted question. The Spanish grammarians of the Mexican language and the most celebrated philologists of the United States deny it. The contrary opinion is held by the Spanish grammarians of the languages of Chili and Peru (Araucanian, Maxa, and Quichua or language of the Incas), by the Rev. Mr. Worcester for the Cherokee, by Mr. Schoolcraft for the Ojibbewa, and by Mr. Hale for some of the Oregon languages. The test proposed by Mr. Duponceau was far from being conclusive. The Indians could not find in their languages any true equivalents for the text, "I am that I am," for the simple reason, that they did not understand

what the passage meant. And if an attempt had been made to explain it to them, that, for instance, it meant "I am the self-existing Being," this notion would also have been beyond their comprehension.

It may here be observed that, in various languages, the word adopted as the verb of existence properly means, to be alive, or to do some act which can be performed only by a living being. Thus, in the Latin, Slavonian, and Sanscrit languages, the substantive verb means, "to eat." In other languages the verb which means to be alive, is "to breathe;" in the Delaware it is *pommauchsia*, "he walks;" in the Mexican it is, "he speaks." In this last language, this notion has been extended to their hieroglyphics or written language. In all their paintings the protruded tongue designates a living person or being. Those verbs expressive of an act which none but a living person could perform may often have been mistaken for the substantive verb. It is certain that in several instances the words, which had been mistaken for substantive verbs, were found to designate locality; and the error had arisen from the fact that, in our own languages, we use in that case our substantive verb (Peter is here). I am not however prepared to deny the existence of a proper abstract substantive verb in some of the Indian languages. But this is a distinct question, and which does not affect that of the absence of the substantive verb, as an auxiliary.

In the cases where we use the verb *to be* in connection with an attribute or a noun, no such verb is used in the Indian languages, and the attribute or noun is converted into an intransitive verb. Instead of saying, I am cold, I am good, I am a man, the Indians say, I cold, I good, I man. And these nouns, cold, good, man, become an intransitive verb, which is conjugated like any other verb through all its persons, tenses, and moods. The distinctions of number and persons are, as in all other verbs, expressed by variations of the pronouns alone, and do not affect the body of the

verb. But the distinctions of tenses and moods are, as in other verbs, effected by an inflexion of the verb itself. The process is the same, whether the noun which is thus conjugated is an attribute or a substantive. Thus in the Micmac, from *lenoo*, a man, is derived the verb *n'lnooi*, I am a man; and it is thus conjugated:

I am a man	<i>n'lnooi</i>	I was a man	<i>n'lnooiep</i>
Thou art a man	<i>k'lnooi</i>	I will be a man	<i>n'lnooidesh</i>
He is a man	<i>lnooi</i>	I would be a man	<i>n'lnooik</i>

The passive voice, for which we use in our languages the substantive verb, is also formed in the American languages by an inflexion.

Not only are nouns thus converted into verbs; but the process extends to other parts of the speech, to prepositions for instance, taken either in a relative or absolute sense. Thus, if speaking of the position occupied by another person in relation to ourselves, we say, Peter is below, or, above (us), the words "below," or, "above," become verbs, and may be conjugated as such. And the same process would take place, if the words "below" and "above" were used as adverbs in an absolute sense. But I do not clearly understand what is meant by the declinable conjunctions mentioned by Mr. Hale.

That which appears to me to be the most striking feature of the Indian verbs, and which is common to all the languages heretofore investigated, consists of the numerous modifications which the verb undergoes, and of the multitude of new verbs, which are created by the insertion of a great variety of particles, having the character of adverbs. These must not be confounded with those inseparable prepositions, corresponding with *in*, *con*, *super*, *under*, *dis*, etc., which abound in the ordinary compounded words, both of the American and of the European languages. But there is hardly any modification of which the action is susceptible, which may not be effected through the means of these inseparable adverbs.

Thus, the action may be intended, or be about to be done. It may be done well, better, ill, in a different manner, quickly, attentively, jointly, probably, rarely, repeatedly, habitually, etc. Other particles are expressive of doubt, likeness, denial, various degrees of assertion. They distinguish whether an action, which terminates on two persons, applies to them collectively, or upon each separately; whether it rains hard, by showers, steadily; whether you see near, far off, one you know, etc.

In each case, a new verb is formed, which may be conjugated through all its tenses and moods, precisely on the same principles as the primitive verb. In the few European and other languages of which I have any knowledge, the same object is attained by adding the adverb as a separate word. The difference consists in the *insertion* of the adverb, thus uniting it in the Indian languages with the primitive verb, so as to form together but one single word. It would be a matter of interest, to ascertain whether this process is peculiar to the American languages, or whether the same species of amalgamation is to be found in any others.

Further researches have confirmed me in the opinion, that the great regularity of the various languages of America, which struck so forcibly the philologists by whom they were first investigated, is the result of analogy modified by euphony. The faculty which produces analogy is developed in the earliest infancy, and leads children to conjugate irregular verbs, as if they were regular ("I seed" instead of "I saw"). Yet, the numerous unwritten languages of Asia and Africa must be analyzed, before it can be asserted that this regularity is universal. The different processes originally adopted by different nations, may, in the formation of their languages, have produced results more or less favorable to their ultimate degree of perfection. Those of America were probably in a progressive state; they had not yet been written; and it is impossible to divine to what extent they might have been naturally im-

proved, and whether the insulated Indians would ever have discovered a phonetic alphabet. It is however certain that those languages were adequate to all the wants of the Indians; and we find, in the formation of new words for objects and ideas previously unknown, the proof, that they had within themselves the power of progressive improvement, whenever required by an advance in knowledge and civilization.

The modern languages of Europe and those of America are undoubtedly much less rich in inflexions than the Sanscrit, the Greek, and even the Latin. It must be admitted, that this inferiority deprives the modern languages of the powers of inversion and of the use of many convenient forms, such for instance as the future participle. (*Moriturus*, which is certainly preferable to the manufactured Delaware equivalent *Elumiangellatschick*; *Amandus*, of which "amiable" is not the precise equivalent.) It seems, however, to me, that the most enviable property of the Greek consists, less in its numerous inflected forms, than in the power it possesses of forming most appropriate compounded words. Few if any traces of Greek inflexions are found in the modern languages of Europe. But these languages generally, and science especially, have extensively imitated, and in numerous instances adopted and appropriated to themselves Greek compounds, often almost unadulterated. The German and the Russian are probably the European languages, which approach nearest the Greek in the power of forming original compounded words.

It is an indisputable fact, that the presumed inferiority, in some respects, of the modern mixed European languages to those of antiquity has in no way whatever arrested the progress of knowledge and civilization.

It appears moreover, that, however deficient these languages may be in inflexions, and notwithstanding the mixture of heterogeneous elements, their capacity for improvement has not been materially impaired. The English is

the least inflected, and the most impregnated with foreign elements, of any of the European languages. Yet, for every possible purpose it is inferior to none. Whether for narrative, eloquence, or every species of poetry, it has but few equals and recognises no superior.

It therefore seems that almost all languages have within themselves the germ or faculty of improvement, that this is developed by the progress of knowledge and civilization, and that there is hardly any language which does not prove sufficient to satisfy all the wants of that improved state of society, whenever it occurs. Without denying some reciprocal action between the language and the mental development of a people, or that there may be some difference in degree between the several languages, I believe that their improved powers are the result and not the cause of the progress of knowledge and civilization. If there be any language the nature of which is so defective as to have impeded that progress, it must be the Chinese.

IV. ADDENDA AND MISCELLANEOUS.

1. *Indians.*—*Some errors pointed out.*

The tenacity with which the Indians adhere to their ancient habits is well known; it continues even amongst those who have not migrated farther west, and who remain within the heart of the settlements and civilization of the white man. It is in no instance more strongly exhibited than in the apparently insurmountable reluctance for steady manual labor. There is, however, no truth more obvious than that of their unavoidable annihilation, if the *men* cannot be induced to cultivate the soil and to raise a quantity of food greater than that which is sufficient for their own consumption. Unless this can be accomplished, all the efforts of missionaries to convert and enlighten them, and of

government to supply their wants, will prove unavailing to prevent the catastrophe. With respect to our Southern Indians, the Choctaws and Chickasaws, the Cherokees, and the Creeks, the prospect is cheering, though there is yet much to be done in that quarter. But the extensive reports of the General Superintendent of Indian Affairs at Washington, which include all those of the local agents, demonstrate in the most forcible manner the fatal effects, on the social state of our Northern Indians, of the well-intended, but most unwise system, which has heretofore been adopted by government. To correct those defects, principally in the territories which have become States, has from various causes become a truly herculean task. The fundamental error has been that of allowing them large annuities, in order to induce them to make greater and earlier cessions of land, than was convenient to them or necessary to us. Nothing can be better contrived to arrest industry and to promote idleness, than to treat men as paupers. Should these obstacles be removed, the impossibility of inducing grown-up Indians to become steady laborers is obvious. The only practicable mode is to take hold of the children, and to give them the same early manual education which the sons of our farmers receive. Schools, in the ordinary meaning of that word, have been established in most of the Indian tribes with whom we have any intercourse: their utility in a religious, moral, and intellectual point of view is incontestable; but, for our Indians, the primary and paramount instruction is the education of manual labor.

But however tenacious the Indians may be of their ancient habits, it would be a great error to believe that, after an intercourse of more than a century and a half, or during five or six generations, their minds and opinions have remained unaltered. The multitude of new objects of which they had no previous conception, all the wonders of art and of European civilization, with which they became acquainted, increased their knowledge and have enlarged the

sphere of their ideas to an extent which has not perhaps been sufficiently appreciated. Recent travellers and missionaries represent to us the Indians as they now are, and not as they were prior to the arrival of the European colonists. It is often no easy task to distinguish, in their present habits and opinions, between that which they have inherited from their ancestors, and that which has been derived from their intercourse with the whites. In order to have a correct view of the habits, social state, intellectual development, and prevailing opinions of the Indians, prior to the arrival of the Europeans, it is absolutely necessary to recur, for each nation respectively, to the earliest missionaries or travellers by whom it was first visited. At the present time the Indians themselves fall into a very natural mistake. After the Indians had been instructed by the whites, and had adopted their opinion on any one subject, this was of course transmitted to their children; and after the lapse of two or three generations, the Indians, having received such opinion from their immediate progenitors, very naturally suppose that it has come to them from their more remote ancestors, and that this was the opinion or creed of the Indians prior to the arrival of the Europeans. On no subject has this error been more general than in what refers to religious opinions; particularly in reference to the supposition, that the Indians had ever had a clear conception of the world having been created and being governed by one supreme spiritual intelligence. The fallacy of this supposition will clearly appear by recurring to the accounts of the earliest missionaries. The general belief amounted to little more than fetichism, faith in dreams, and an ascribing of every extraordinary natural phenomenon to some superior power. There were words in their languages designating those fetiches or superior powers, such as that amongst the Sioux, which has been translated ridiculously enough by the word *Medicine*, and the word *Manitou* amongst the Algonkins. But there was no single word meaning God. This has

been lately confirmed by Mr. Hale, as respects Oregon, on the unanimous testimony of all the missionaries. The Hurons [Wyandots] appear, by the relations of the Jesuits, to have had a mythological system more regular at least than that of any other tribe. And all the nations generally had notions of an after life, and the tradition of some catastrophe which had destroyed mankind.

Mr. Heckewelder asserts positively that the unconverted Pagan Delawares entertained a very clear conception and belief in one supreme spiritual being; in fact, that they were what we would call Theists. There cannot be any doubt of the fact. For notwithstanding the amazing credulity of Mr. Heckewelder, and his entire and exclusive devotedness to that one Indian tribe of the Algonkin family, whom we call Delawares, his veracity is unquestionable; and perfect confidence may be placed in every fact, not received from others, but which came within his own personal knowledge. But the fact may be easily accounted for. The Delawares had, for several generations, entertained the most intimate intercourse with their constant friends and protectors, the Quakers. Every one acquainted with the religious belief and the habits of that denomination of Christians, will at once understand how, in their efforts to improve and civilize the Indians, they began the work by impressing on their minds the truths of what has been called natural religion, rather than to attempt, as is the practice of other missionaries, to teach them more abstruse doctrines.

Independent of these involuntary errors, it is certain that the love of truth, which, judging from children, does not seem to be even natural to us, is not an Indian virtue, at least amongst those who have not been truly converted. Very little reliance can be placed on their legends, tales, or pretended historical traditions, many of which are indeed fabrications ascribed to them. The evidently fabulous annals of the Iroquois were, however, invented by a pure Indian (Kussick?). They have certainly no scruple in telling

what are called white fibs. If any inquiry is made on any subject, they have considerable tact in discovering the answer which would please the inquirer, and immediately invent a tale for that purpose. I have traced some evidently of that character, in reference to the supposed Welsh Indians.* The love of the marvellous, and sometimes that of notoriety, have the tendency to spread an undue degree of credence in those fables. Yet some of the Indian traditions may be founded on a true fact, though altered, as is so generally the case, in order to answer some immediate purpose. Thus the assertion of the Delawares, that they came from beyond the Mississippi, has been confirmed by the affinities of their language with that of the Black-Foots. But the story of their having come with the Iroquois, and the recital of their subsequent relations and wars with that nation, have evidently been invented, in order to account for the state of subjection in which they were found by the Europeans. The Indians may generally be believed, when they assert positively that they came from the West, or from some other special quarter. When they say, like the Osages, that they are descended from a beaver; or, like the Mandans, that they came from under ground, it only shows that they have no recollection of the quarter whence they came.

2. *Indians—Ethnological remarks.*

The relative intellectual character of the Indian tribes along the western shores of the Pacific is remarkable. It has already been stated, that the Esquimaux extend no farther south than the vicinity of Behring's Bay, or about the 50th degree of north latitude. The several tribes who inhabit the various islands and archipelagoes that extend

* On this subject, I only deny that they have as yet been found. If ever a tribe is discovered, whose language gives evidence of a Welsh descent, the fact must of course be accepted.

thence southwardly to the vicinity of Fuca Straits, or about the 49th degree of north latitude, are amongst the most intelligent Indians of North America. Those of Oregon, from the 49th to about the 41st degree of north latitude, are in that respect decidedly inferior to them, and on the other hand very superior to those of Upper California between the 41st and the 31st degrees of north latitude. Those of Lower California, as far as the southern extremity of the peninsula, have uniformly been represented as one of the most degraded and brutish races of Indians in either North or South America.

The most northerly tribe is that known by the name of *Kolushes* or *Koulisken*, between the 50th and 55th degrees of north latitude. The accounts given by the American and British traders are fully confirmed by those of the Russians and of the French [Marchand]. The most detailed and complete accounts refer to Norfolk Sound or Bay, so called by the English, in about lat. 57° and long. 135°, called Tchinkitane by Marchand, identic with the Sitka Bay of the Russians, and situated on King George's Island. All agree in the description of their canoes, ingeniously constructed, forty-five feet long, and which can carry sixty men; in their skill in sculpture and painting, as exhibited in their masks and in their domestic utensils painted and elegantly carved with various figures; and generally in their ingenuity and intelligence. They speak the same language, amount to about ten thousand souls, and are, like our own Indians, divided into tribes or clans; a distinction of which, according to Mr. Hale, there is no trace amongst the Indians of Oregon. The names of the tribes are those of animals, viz., bear, eagle, crow, porpoise, and wolf. This last, called *Coquontans*, is superior to the others; they are also the best warriors, and exhibit no fear of death. The right of succession is by the female line from uncle to nephew, the principal chief excepted, who is generally the most powerful of the family. A most strange custom, and

peculiar it is believed to the Koulisken, prevails among the women. It consists in cutting off, or rather boring a hole in their lower lip, and inserting a piece of wood, making the lip project four inches, and extend from side to side six inches, in such way that they cannot eat or drink without the greatest difficulty. Although they had been visited by the Spaniards a year or two prior to the first appearance of the Europeans, the visit was so transient, that certainly it was not from that quarter that the Indians derived their knowledge, customs, and institutions. The first settlement of Sitka by the Russians under Baranoff took place in the year 1800. It was destroyed by the natives; and the date of the permanent Russian establishment is as late as the year 1804. It has been observed that, according to the vocabulary of Chanal, who accompanied Marchand, the numerals one and two are respectively *clerrg* and *terr-k*, and that the numerals 20 and 40 are respectively *clerr-kat* and *terr-kat*. Whence it may be suspected that the system of numeration of the Koulisken was vigintesimal, like that of the Mexicans. There were also found at Nootka Sound some engraved stones, which have some faint resemblance to the Mexican periods of 13 months and 20 days.

Passing over the tribes on the Main and on the groups of islands immediately adjacent, who speak the Nass language, amounting to about five thousand five hundred souls, (who are found as far north as Observatory Inlet, and who extend on the Main perhaps as far south as Millbank's Sound,) Queen Charlotte's Island, between latitudes 52° and $54^{\circ} 25'$, deserves particular notice.

It must be recollected that, prior to the comparatively modern colonization of Upper California by the Spaniards, and to the arrival of the Europeans on the northwestern coast of America, there was not the slightest trace of agriculture in the territory west of the Stony Mountains, of the Rio Colorado of the west, and of the Gulf of California. The branch of the fur-trade which engrossed the attention

of the Russians, the British, and the Americans, was that of the sea-otter. This was a source of comparative wealth, which enabled the Indians to purchase European commodities, and created new wants. Even then, the cultivation of potatoes was introduced into Queen Charlotte's Island, and carried to a considerable extent by the natives. Subsequently the sea-otter trade was carried on with such avidity, that the species became almost extinct; and the natives of Queen Charlotte's Island became unable to pay for European manufactures, and to satisfy those new wants which they had contracted. Under those circumstances, they at once increased considerably the cultivation of potatoes, and opened a trade in that article with the inhabitants of the opposite Main, receiving in exchange for their potatoes various species of land furs, with which they were enabled to pay for the European manufactured articles.

Our knowledge of the Indians in the interior, west of Frazer's River, is as yet too limited to form a correct opinion of their intellectual development. Salmon appears to be their principal food. The inhabitants of the northern parts of Vancouver's Island, Newitsee, and Nootka Sound, do not appear inferior to those of the more northern islands. Although we have mentioned the Straits of Fuca, as the southern limit of the most intelligent races, the change is gradual, and there is probably very little difference between the Indians along the Straits of Fuca, whether they reside on its northern or its southern shores.

Mr. Hale has described the Oregon Indians, between the 49th and the 41st degrees of latitude, as being vastly inferior both to their northern neighbors and also to our Indians east of the Stony Mountains. It seems to me that, in this last respect at least, he has not done them full justice. It must be observed, that Mr. Hale had no personal knowledge of our Indians; that there has been of late years a manifest tendency to give much more exalted views of the intellectual and moral character of the ancient Indians, par-

ticularly of New England and Pennsylvania, than they were really entitled to; and that romance has in the hands of highly gifted writers superseded history. In point of fact, the Upsarokas and the Black-Foots have no other apparent superiority over their neighbors of Oregon, than that of being more bellicose and more formidable warriors. On the other hand, it appears to me that the Oregon Indians are more tractable and might be more easily civilized than our Indians. The Methodist missionaries, high up the Columbia River, have made but very few converts; but the Indians in their vicinity have imitated them, and raised large crops of potatoes. Although the Hudson's Bay Company has not been able to prevent altogether wars among the Indians, its influence in that respect has been very beneficial; and more friendly relations have been substituted for the perpetual and cruel warfare, which existed between the Black-Foots and the adjacent tribes on the heads of the Columbia River. Some commercial intercourse has taken place; and one of the cultivators of potatoes, in the vicinity of the Methodist mission, is mentioned as having lately, by the aid of canoe navigation, carried a cargo of potatoes to the Black-Foots, which he exchanged for a quantity of dried buffalo meat, sufficient for the use of his family during the following winter.

The Indians of Upper California, from the sources of the Rio Sacramento in about lat. 41° to lat. 31°, are represented as decidedly inferior to those of Oregon, and as not much superior in intellect to the Australians, from whom however they essentially differ in many respects. They are not warlike; and wherever missions were established by the Spaniards, the Indians were easily collected around them and consented to work, and to live in a state of subjection to the missionaries,—to which, Mr. Hale observes, the Oregon Indians would never have submitted.

Several ethnological differences, among the various Indian tribes, generally connected with their respective

means of subsistence, have been pointed out in the first part of this Introduction. There is another due to a different cause which seems to me to deserve some attention. The natives of the open prairies beyond the Mississippi are evidently less apathetic and much more cheerful than those who dwell in the forest. Thus far this is not confined to the Indian race, and I have felt its effects. But the gloom of the forest appears to have had a much more profound influence over the Indian character. All savage nations are guilty of acts of unnecessary cruelty towards their enemies. But this inveterate spirit of hatred and revenge which, without any apparent connexion with religious superstition, produced the regular and constant infliction on captive enemies of the most dreadful and prolonged tortures which human ingenuity could devise, and which converted even women into infernal furies, extended through the whole forest country from the Lakes to the Gulf of Mexico, and was peculiar to it. Indeed we find, at least amongst some of the most southern Sioux tribes, evidences not only of more human, but even of honorable and chivalric feelings in their warfare. To take a prisoner alive, or even to strike an enemy with a lance, confer a higher distinction than to shoot him at a distance with a bullet or arrow.

It had been the intention of the writer of this Introduction to give specimens in various American languages of the compounded words, the meaning of which we know and which have been analyzed: but he has been disappointed in his expectation of receiving sufficient materials for that purpose. He had also intended, with the assistance of some of his colleagues, to compare the languages of America with those of Polynesia, with the Hebrew, and with the Grebo and Mpongwe of Africa, on which the labors of the Rev. John Leighton Wilson have thrown so much light. The state of his health has not permitted him to pursue the inquiry. The following notes on the Polynesian languages

are however submitted; observing, that the analogies pointed out between those languages and those of America are borrowed from the sketch, unfortunately too short, of Mr. Theodore Dwight, which forms the fifth article of this volume of the Ethnological Society's Transactions.

3. *Polynesian Languages.*

No traces of the Malay language are found in the vocabularies of any of the American languages which have been investigated. On the other hand, all the languages of the Polynesian Islands [not including among these either Australia or the black Papuan race] were at once recognized as belonging to the great Malay family, as soon as vocabularies of their various dialects had been published. The supposition that this language had its origin in Polynesia, and was transferred thence to the Asiatic Islands and Continent, is inadmissible. The fact, that the connexion between the Polynesian and Malay languages is still so visible, proves that the migrations from Asia, by which Polynesia was colonized, are of a comparatively recent date. If any portion of the Continent of America was ever settled by Malay emigrants, which is extremely improbable, it must have been at a very early and remote period.

There are nevertheless some analogies, in their structure, between the Polynesian languages and those of America, which may invite further investigation. The Polynesians have a dual and a plural, both designated by the varied inflections of the pronouns; and there are two forms of the first persons of both, one of which includes and the other excludes the person spoken to. The possessive pronouns bear a similarity to those used in the conjugation of verbs. Verbs have few if any inflections, the want of which is supplied by affixed particles, which are used to designate tense, mood, and voice. Causative, reciprocal, potential, directive, and locative verbs are thus formed. Time is less regarded

than the place where the action is performed ; and this is carefully expressed by the locative verbal form. The directive particles indicate, as in the Oregon languages, the direction of the action, whether from or towards the speaker. It may not be improper to observe, that there are in the Cherokee similar directive forms.

Wa-i, he is going away from the speaker.

Ta-ga-i, he is moving towards us, he is coming.

Na-i, he is passing by.

But it is the phonetic system of the Polynesian languages which has especially attracted my attention. It is now well understood that, in order to form a new alphabet for any language, or to apply properly to it an existing alphabet, it is absolutely necessary in the first instance to analyze all the sounds of that language. The most perfect alphabet would then be that in which every distinct sound was represented by a distinct character, and in which no character represented more than one sound. In this view of the subject, I know none more perfect than the Russian, or more defective than the English. It is to these defects that the difficulty and the length of time consumed in teaching our children how to spell must be ascribed. The numerous modifications of which simple vocal sounds are susceptible, and the variety of diphthongs found in every language, render it however practically impossible to have a perfect alphabet without an inconvenient increase of written characters. The difficulty is or may be partially removed by certain signs, such as those denoting quantity, the cedilla, the French accents [so called] by which the various modifications of the sound *e* are distinguished, etc. Still we must be satisfied with an approximation. Mr. Volney thought it possible to devise a general alphabet derived from our own, with which all the written languages of the nations which do not use the Roman alphabet might be expressed. He instituted a premium and left funds for that purpose ; the premium has not yet been and probably

never will be adjudged. Mr. Pickering, less ambitious, proposed only an alphabet which should be common to all the unwritten languages of our Indians. This, though founded on correct principles, and very useful in establishing a proper and uniform correspondence between the principal simple vocal sounds and the characters by which they should be expressed, has been but partially adopted.

Recurring to the Polynesian languages, it appears to me, that Mr. Hale's vocabularies are, for the places which he visited, those on which the greatest reliance may be placed. All the other philologists have derived their information from travellers and missionaries, whose vocabularies are deficient in uniformity and often in correctness. Mr. Hale, it is true, obtained part of his information from missionaries, but he is the only philologist who, in every group he visited, heard the various Polynesian sounds, as pronounced by the natives themselves, compared them together, and was thus enabled to devise a uniform orthography embracing the various dialects of all those groups.

He informs us that the elementary sounds proper to the Polynesian languages are only fifteen in number, namely, the vowels *a, e, i, o, u*, and ten consonants, *f, k, l, m, n, p, s, t, v*, and a nasal sound, for which a new character has been introduced. He further states that, in all the Polynesian dialects, every syllable must terminate in a vowel; that two consonants are never heard without a vowel between them; that this rule admits of no exception whatsoever; and that it is chiefly to this peculiarity that the softness of these languages is to be attributed. The longest syllables have only three letters—a consonant and a diphthong; and many syllables consist of a single vowel.

Mr. Buschmann, in his excellent analysis of the languages of the Marquesas and of Tahiti, corroborates generally Mr. Hale's statements; and he has, as it seems to me, demonstrated that the Polynesian languages have gradually repudiated distinct and well pronounced consonants, par-

ticularly the sibilant, and have reduced many words to pure vocal sounds.

At all events the fundamental rule, that every syllable must terminate in a vowel and that double consonants never occur, is certain. The Cherokee differs, in one respect at least, from the Polynesian; it is strongly articulated, and the sibilant predominates in it. But it has very few double consonants; and every syllable terminates, as in the Polynesian, in a vocal sound. It is this property which enabled Sequoyah, or Guess, as he is commonly called, to invent a syllabic alphabet, adapted to the Cherokee language, and consisting only of eighty-five characters, the equivalents of which, according to the English alphabet, will be found in the annexed table. In the last column, the *v* is intended to represent the nasal sound, which, in the Cherokee is, as in French, always vocal. It will be seen that there are but three double consonants, viz., *dl*, *tl*, and *ts*, which, combined with the vowels, require, according to Guess's plan, thirteen characters. But this is independent of the other combinations of the sibilant *s* with the consonants, which are so numerous in the Cherokee that Guess, departing from his general principle, assigned to that sound a distinct character, and was thereby enabled to reduce his syllabic alphabet to eighty-five characters. He first undertook to make a written Cherokee language, without any other knowledge of our system, than that the English could write their own; and his first essay was to assign, like the Chinese, a distinct character to each word; which seems to prove, that this was not an unnatural process. He soon rejected this plan on account of the innumerable characters which it required; and having, by the attention he paid to sounds, fortunately found out the small number of the syllables of the language, he analyzed these thoroughly, arranged them on an uniform plan, published his alphabet, tried it experimentally, and in a short time met with complete success.

*English equivalents of the Cherokee sounds represented by
Guess's characters.*

a	e	i	o	u	v
ga, ka	ge	gi	go	gu	gv
ha	he	hi	ho	hu	hv
la	le	li	lo	lu	lv
ma	me	mi	mo	mu	
na, hna, nah	ne	ni	no	nu	nv
qua	qe	qi	qo	qu	qv
sa, ma	se	si	so	su	sv
da, ta	de, te	di, ti	do	du	dv
dla, tla	tle	tli	tlo	tlu	tlv
taa	tee	tai	tso	tsu	tsv
wa	we	wi	wo	wu	wv
ya	ye	yi	yo	yu	yv

Sounds represented by vowels.

a	as in fat, far, father, fall.
e	" met, may, mate.
i	" fit, fest.
o	" not, nor, no.
u	" bull, boot.
v	a nasal vocal sound.

It is well known that such are the manifest advantages of this system, that it has been universally adopted among the Cherokees, and has superseded as a written language that which was founded on our alphabet. It is only necessary to engrave in the mind the eighty-five characters, and the student can at once write, read, and spell correctly his own language. Experience has shown that intelligent boys could learn all this [the writing correctly only excepted] in two weeks, and even old men in a comparatively short time.

It seems highly probable that the same system might be adopted for the Polynesian languages. Although there are various dialects in Polynesia, the same syllabic alphabet would serve for them all. It would enable every Poly-

nesian, not to understand the languages of other groups than his own, but to learn in a few weeks how to read, write, and spell his own dialect. The great advantages that would necessarily follow by facilitating the introduction of knowledge of every description, and diffusing it through the whole community, is obvious.

I believe, however, that an examination of the various sounds which occur amongst the several Polynesian dialects, as they have been pointed out by Mr. Hale, will show that it is necessary to add some characters to the fifteen first above mentioned. He states [pages 231 to 235] that the New Zealand dialect changes the *s* to *h*, the *l* to *r*, and the *v* to *w*; that this sound *w* is in Hawaii intermediary between the English *v* and *w*, and that the *l* is frequently sounded in all the Polynesian dialects like *d*. The same observations apply more or less to several other dialects. It therefore appears certain that in order to have a complete alphabet embracing all the Polynesian dialects, it is necessary to add the following consonants, *r*, *w*, *h*, and *d*.*

The consonant, for which it was found necessary to invent a new character, expresses a nasal sound [*ng* in *sing*]. The true character of a nasal sound is perhaps doubtful. In the Cherokee, it is considered as vocal; but the inspection of the Polynesian vocabularies shows that it never terminates a syllable, and therefore that it is always pronounced as a consonant. Instead of a new character, this sound may with propriety be represented by our letter *G*.

If these observations be correct, we would have for all the Polynesian languages put together the five vowels, and [though many less for each dialect taken separately,] the combinations of the fourteen consonants with these five vowels, or in all seventy-five possible syllables. Whether the number be a few more or less does not affect the prin-

* It may also perhaps be found proper on further investigation, to add *b* and the character *j*, used by the missionaries of Tonga, to represent a sound said to be like *ti* in Christian, and not unlike the English *ch*.

ciple ; and the number actually necessary will be found comparatively so limited as to render the introduction of a syllabic alphabet practicable. But a great improvement may be made, by substituting for the arbitrary and uncouth characters of Guess's Cherokee alphabet, such as will recall to the mind the sounds which it is intended to represent. Although a more scientific method might be preferable, the object may be attained by adopting, for each consonant, the character of our alphabet by which it is expressed, and to which those who already can read and write any of the Polynesian dialects are accustomed, and by the simple addition to each consonant of not more than four signs, for the purpose of representing the vocal sounds which terminate the syllable. In order to represent sounds which are diphthongs to the ear, the character which in our alphabet represents the last vocal sound of the diphthongs should be added to the syllable.

According to what precedes, and giving to our five vocal letters the same value as in the Cherokee, we have besides these five vowels the following seventy syllables :

Ka ka ki ko ku	Ga gue gui go gu	Va ve vi vo vu
Pa pe pi po pu	Ha he hi ho hu	Fa fe fi fo fu
Ta te ti to tu	La le li lo lu	Ra re ri ro ru
Da de di do du	Ma me mi mo mu	Sa se si so su
	Na ne ni no nu	Wa we wi wo wu

It has been already stated that four signs annexed to each of the initial consonants would be sufficient, in order to represent the five vocal sounds which terminate respectively each syllable. This will be effected by giving to each consonant, without any sign, the sound of that consonant followed by the vowel *a*. Thus for instance, P, without any sign, would stand for Pa ; and the four signs affixed, each successively to P, would respectively represent the four sounds Pe, Pi, Po, Pu.

Further details will be found in the Note annexed to this Introduction.

This system is liable to the objection, that the characters cannot be connected together, which will render the cursive writing less rapid. This is admitted; but it does not appear very important that those, who may want to write in those languages, should write as fast as we do. The Cherokee characters are liable to the same objection. This might be partially obviated by adopting for cursive writing the same ordinary characters we use in our own.

4. *Chinese.*

When stating that it appeared to me, that the peculiar character of languages had very little effect towards promoting or impeding the progress of knowledge and civilization, a doubt was expressed, whether the Chinese might not perhaps, from its peculiar character, form an exception. Of this I certainly was not a competent judge; but Mr. S. Wells Williams, the distinguished author of "the Middle Kingdom," or General Survey of the Chinese Empire, and whose extensive knowledge of the Chinese language is well known, has fully corroborated that which on my part was only a suggestion. He had moreover the kindness to revise and correct some remarks upon the Chinese language which I had submitted to him, and to reply to several inquiries connected with the subject. In answer to various queries, he says:

"In reply to the inquiry contained in your letter in respect to the number of readers among the Chinese, I may say that the proportion among the body of people, who hardly know a single character, is large, and that the proportion who cannot read intelligibly is still larger, amounting, probably, to five-sixths of the population. Among the

men, hundreds and thousands make a commencement, and learn the names and meanings of a few hundred characters, who advance no further in their studies, and have no subsequent leisure to pursue them, even to the degree of being able to read common books, much less to write elegantly or fluently.

"A man may progress in the acquisition of characters to the number of five or six hundred, which he may correctly use and understand, and yet he may not be able to read a book in which others occur mixed up with these. A lad goes to school and learns the common horn books, so that he can repeat them and write all the characters in them from memory; but unless he has time to pursue his studies further, these 1500 or 1800 characters will not enable him to read the classical writings of Confucius, or the edicts published by the government. I have been standing by the wall of an office, looking at an edict, and on asking the people gathered around it, what such a sentence meant, or the meaning of such a character, have found them in the same predicament as myself, sometimes knowing the sound but not the meaning of a sentence, or ignorant of both sound and sense in other cases. Amid all these degrees, there are among the Chinese an infinite diversity of attainments in the written language, from the ignorant laborer, who does not know his own name when he sees it, up to the most learned scholar in the land, all of whom, I venture to say, have still to look forward to further attainments in their own literature and language. I need hardly add that you are correct, in supposing that this language has greatly impeded the progress of knowledge among the people who use it, and who spend so much time in getting the means of knowledge, that its end is never reached or is quite lost sight of."

I had stated in writing to Mr. Williams that it appeared to me that, through the whole progress of Chinese educa-

tion, there was a prodigious waste of time for the purpose of acquiring only the knowledge of words, and a perpetual and excessive appeal to memory at the expense of every other faculty. Whence it might be inferred that, among other causes, the language itself may have impeded, or at least been unfavourable to the full development of the intellectual faculties and to the progressive increase of knowledge and true civilization.

"Such," Mr. Williams answered, "is emphatically the case. The memorizing of so many arbitrary characters, and reciting word for word the expressions of others, as is done in all Chinese schools, goes far to dwarf the judgment of the pupil, and compel him to follow in the beaten track of his predecessors. This mode of instruction accounts for the remarkable similarity in the modes of thinking among the Chinese, and their overweening conceit of their own attainments; it also explains why they have copied so little from others, and shown so little desire to improve even upon what they themselves possessed." . . . "The whole apparatus of the Chinese, for expressing and transmitting thought, is in a high degree cumbersome and inadequate; and it is much to be desired that this great impediment to the diffusion of knowledge among the people might give way to an alphabetic language, although at the risk of disintegrating the Chinese people, now held together under one government mainly by one written language."

Thus far, the written language has alone been taken into consideration. The spoken dialects are numerous, amounting probably to more than twenty distinct languages, some of which differ so far, that those spoken in some districts are altogether unintelligible in other distant provinces. There is one spoken at Nanking and its vicinity, which is considered as the most polished, and is the court language. They still appear to belong to a same family; and what is said of one may generally apply to the others. They are all represented as extremely poor. Mr.

Williams informed me, that the spoken language did not consist, in any one dialect, of more than between 450 and 500 words; which number was increased to between 1200 and 1500 by the use of several distinct tones or intonations. The language appears to have been originally monosyllabic; the number of the monosyllables has not been precisely stated, but does not probably exceed 350 to 450, each of which is a word having a meaning. The other words consist of dissyllables resulting from combinations of the monosyllables, and probably not exceeding 100. It necessarily follows that, however poor the spoken language may be, it has within itself, by the number of dissyllabic combinations which may be formed, the power of increasing the number of words to the full extent which any state of society may require. For any one of 400 monosyllables may, with the help of change of position, form 600 combinations [or new words] with the other monosyllables. This number therefore multiplied by 200 [the half of the whole series] gives a total of 160,000 possible combinations or new words. It is true that I am not sure of the number of monosyllables; but if they amounted to only 300, this would still give 90,000 possible combinations. Why then does that spoken language, with such capacity, remain as poor as it is represented? The satisfactory answer appears to me very obvious. The ordinary language, such as it is spoken by the mass of uneducated people, remains poor, because they are very ignorant, and that, such as it is, it corresponds with the sphere of their ideas, and satisfies all their wants in that respect. The same phenomenon occurs every where, whatever the language may be. By reading over twenty pages taken at random out of any good English dictionary, it will be seen, how limited is the vocabulary of the ignorant and uneducated part of the community. Nor can there be any doubt, I think, that the Chinese language spoken by well educated people, and especially the Nanking dialect, is very different, and in fact

much richer than the dialect of those without instruction and who cannot read.

It is impossible for any one, who is not acquainted with the language, to form any opinion of the effect which may have been produced by the apparent separation of the written from the spoken language, or indeed to understand their connection and the real relative position in which they are placed.

When first attempting to write, the object of the Chinese must certainly have been to express by characters the words of the spoken languages; and Mr. Williams states, that this was done in reference to their meaning rather than to their sound. He says that the first written characters were strictly symbolic, but that their form was subsequently changed, so that little or no resemblance now remains between the thing and its symbol. Mixed characters were afterwards formed by uniting two known symbols together, the one denoting the genus to which the thing intended to be represented did belong, and the other having reference to the sound of the spoken language, in a manner of which I have not been able to form a clear conception.

It is a startling fact, that there should be 40,000 characters or words in the written, and less than two thousand words in the spoken language. It is said indeed that eight or ten thousand are sufficient for any ordinary purpose, and that there are no more than 6,000 characters used in the classical books called "the works of Confucius." Still it is impossible that the other 30,000 should have been invented for no purpose whatever. Admitting that the number of homophonous words far exceeds that found in any other language, yet it cannot be supposed that there should be on an average twenty homophonous words for each sound; and the inference seems inevitable, that there must be a considerable number of words in the written, for which there is no precise equivalent in the spoken language.

On the other hand it is certain, that there is a considerable number of written characters, which have precise equivalents in the sounds of the spoken language. A conclusive proof is found in the fact, that the Chinese have a written metrical poetry, since metre and sound are inseparable.

With respect to grammar, there can be no doubt of the identity of that of the spoken dialects, with that of the written language. And although this is a more debatable question, I do believe that the grammar was formed prior to the invention of written characters.

Be that as it may, the leading fact is generally established and universally acknowledged, that the Chinese system of writing has materially impeded the natural progress of knowledge. It has insulated the Chinese, and has rendered them almost impenetrable to the introduction of knowledge from foreign quarters.

China contains probably one third of the human race; and Eastern Asia, (including India, Thibet, Eastern Tartary, China, the Indo-Chinese Nations beyond the Ganges, Japan, and several other large islands of the Asiatic archipelago,) with a population of more than one half of that of the globe, has hardly any other religious system than the superstitious idolatry of the two kindred though hostile sects of Brahma and Budha. For the doctrines of Confucius are a pure ethic system, neither connected with or deriving any sanction from religious belief. Those people are not barbarous savages: the Hindoos and the Chinese, on the contrary, were among the most early civilized nations; and they have made considerable progress in the arts and in literature. The magnitude of the field for improvement is unparalleled. A most earnest desire is felt that the blessings of true religion and the light of European science, arts and knowledge, may be diffused through that vast portion of mankind.

Ethnology is not cultivated simply as a matter of curi-

osity, but in order to apply the knowledge of the history of man, which it supplies, to practical, beneficial and important purposes. If, in this instance, an unfortunate system of writing has contributed to keep China in comparative darkness, is it not worth while to inquire whether a remedy cannot be found in philology itself? This must be my apology for the following crude suggestions:

One of the ways already resorted to is the substitution, if it can in practice be extensively diffused, of an European written language for that of China. The rapid progress made, not only in the acquirement of the English language, but in their general studies, by the Indian boys who, by the liberality of a few English and American merchants residing in China, enjoy at this moment the benefits of a good academical education in America, is very encouraging. Though very young, they feel the superiority of the Europeans and that of the English to their own language, when they acknowledge that they can easily translate Chinese into English, but that they cannot find equivalents in their own language for much of that which is written in English. This fact conclusively proves the inferior knowledge of the Chinese, and also the obstacles which the nature of their written language opposes to the introduction of new objects and ideas. It is the very reverse of that which every European experiences when he learns a foreign language, since it is far easier to understand the meaning and to translate into one's own language Latin and Greek authors, than to write correctly either of those tongues.

The utility of a phonetic alphabet, applied to the spoken dialects of China, would be far more extensive than that, which may be derived from the introduction of a foreign spoken language, the use of which must be necessarily limited to a few individuals. But although this would if practicable be by far the most preferable plan, it may be apprehended, that it is in such direct opposition to deeply

rooted national habits, that it cannot be diffused to a sufficient extent.

Should this be the case, a plan less innovating, more congenial to the Chinese language, and therefore more practicable, might perhaps be devised. This would consist of a syllabic alphabet, which has been suggested to my mind by its success in the Cherokee and by its applicability to the Polynesian languages.

Since there are but about four hundred monosyllables in the spoken Chinese dialects, and no longer words than dissyllables, four hundred characters, either alone or united together in combinations never exceeding two characters, will be sufficient to express, not only every word of the language as it now stands, but every new word which the progress of knowledge may hereafter require. The difference between committing to memory four hundred or eight thousand written characters is immense. It seems indeed to me that, inasmuch as spelling is, in a language written with a syllabic alphabet, necessarily embraced in the art of writing, and requires no particular subsequent study; to learn to read and write a language, having no more than four hundred characters, would consume less time and labor than are spent in learning how to read, write and spell the English language. It is true that, besides those 400 characters, such must be added as are necessary to supply the want of grammatical inflections, and of the same nature as those which perform the same office in the Chinese written language. A most useful innovation, if practicable, would be the substitution of characters less complex and more easily written than those of the Chinese. I am very sure that, to this plan, which to me appears so simple, there will be found many practical objections. It is, as a suggestion and with diffidence, submitted to Philologists, and more especially to those who have devoted their lives to the noble task of diffusing amongst that people the lights of the Gospel and of European knowledge.

5. *Benavides on New Mexico.*

Some additional information, respecting the Indians of New Mexico, is contained in a memoir addressed to Philip IV of Spain by Alphonso de Benavides, Superior [Custos] of the Franciscan missionaries in that province, printed at Madrid in the year 1630. The copy belonging to Mr. John Carter Brown, of Providence, from which the following extracts are taken, is a Latin translation published in Germany in the year 1634.

The object of the memoir was to obtain the aid of Government, and especially a greater number of Franciscan missionaries, for the purpose of converting the Indians. It is very short; and consists almost wholly of an account of the progress already made in that respect, illustrated by various episodes, anecdotes, and miracles. I extract the few passages which relate to the objects of the researches of our Society.

New Mexico extends one hundred leagues from South to North, along the banks of the celebrated Rio del Norte and its vicinity. The most southern Nation is that of the Piros, the southernmost village of which was called Senecú. The Nations dwelling along the banks of the river were, from South to North, the following:

	No. of villages.	No. of inhabitants.	MILLIARIA.	
			Extent along the river.	Distance between the several nations.
Piros	14	6,000	15	not stated.
Toas	16	7,000	13	4
Queres	7	4,000	10	
Teoas	2	6,000	12	10
Picurles	1	2,000		7
Taoa	1	2,500		most northern.
		27,500		

Allowing ten milliaría for the distance between the Piros and the Toas, and as many for that between the Queres and the Teoas, we have but ninety milliaría, instead

of one hundred leagues: but I do not know what is the length of Benavides's milliarium.

The Teoas, Picuries, and Taos are but one Nation; though there is some difference between their dialects.

Beyond the Rio Norte and twelve leagues west of the Queres, are the Hemes, 1 village, 3,000 inhabitants, the residue of a Nation which had been nearly destroyed by wars.

East of the Rio Norte, Benavides mentions three Nations; the most southern of which, 10 milliaris east from the Queres, is called Tompiras, viz:

Tompiras 15 villages	10,000 inhabitants, extend 15 milliaris.
Taos 5 "	4,000 " " 10 " 10 milliaris from Tompiras.
Peecos 1 "	2,000 " " 4 " " Taos.
	<hr/>
	16,000
Hemes	3,000 are of the same language and Nation as the Peecos.
Along the Rio Norte	
as per above	27,500
	<hr/>
	48,500 to which may be added the village of
Aooma	2,000
	<hr/>
In the year 1630	48,500 souls, total Indian population of New Mexico.

About 12,000 less than Castañeda's estimate in the year 1542. At present it is estimated at only ten thousand.

The province of Piros abounds with gold and silver mines, especially in the vicinity of the principal village of the province, which is dedicated to our Lady del Socorro. These mines extend northerly more than fifty leagues.

The land in the province of Tompiras and north of it is not very fertile: the cold is intense in winter, and there is a general want of water; but there is an abundance of salt in Tompiras.

The province of Piros was the last that was converted. The first was that of Teoas, and its inhabitants are the firm and faithful friends of the Spaniards. The Picuries immediately above them, though originally a part of the same nation, were amongst the most indomitable and intractable

Indians; but they have become pacific and obedient. Their land is very fertile, the water excellent, and the river abounds with trout.

The city of Santa Fe is situated seven leagues west of Peccos. It is the capital of the kingdom of New Mexico, where the governor resides, with two hundred and fifty Spanish soldiers, of whom no more than fifty are effective. Yet they are always victorious against the Indians, who are struck with terror by their very name, and will fly before a single Spaniard. In order to preserve that superiority it has been found absolutely necessary to treat with the utmost rigor those who rebel. Although this place is very cold, it is nevertheless the most fertile of New Mexico.

Twelve leagues west of the last village of the Queres is the almost inaccessible rock called Acoma, on the summit of which is a village containing two thousand most warlike inhabitants. This was however taken by the Spaniards, and the inhabitants were miraculously converted in the year 1629.

Thirty leagues west of Acoma is the province of the Zuni, which in a space of nine or ten leagues contains eleven or twelve villages, and more than ten thousand inhabitants, almost all of whom are converted. The land abounds with every necessary of life. Thirty leagues farther west is the province of the Moqui, containing likewise ten thousand inhabitants. This nation was converted in consequence of a miracle performed by a Franciscan monk, who restored his sight to a boy about twelve years old who was blind from his youth. Although Benavides does not state it, it will appear clearly by reference to Lieut. Col. Emory's Map, that these two last nations dwelt west of the Sierra Madre, on the waters of some of the tributaries of the Great Colorado of the West. The same locality is at this time assigned to them, and might be designated with great precision, if it lay due west from

Acoma, the position of which has been ascertained by astronomical observations.

Benavides states that the houses in New Mexico are built with unburnt bricks, and have one or more stories with porticos towards a court.

The land he represents as extremely fertile. Besides the maize, which yields 130 times the quantity sown, and requires but little labor, he mentions melons, pumpkins, cucumbers, beans, roots, onions, etc. The Rio Norte may at times be waded, but is very deep and rapid when swelled by the melting of snow. The cold is most intense in winter; all the rivers, and even the Rio Norte, are frozen over and will bear horses and carriages. In some of the provinces the heat is so excessive in summer that you can hardly breathe.

Benavides gives the generic name of Apaches to all the more savage and bellicose nations which surround New Mexico in every direction; and he seems to have believed that they all spoke the same language. He distinguished them however sometimes by special names, and oftener on account of their mode of life, or of some particular circumstance. All the Indians east of New Mexico who were buffalo hunters, he called Apaches Vaqueros. He had and could have but vague notions respecting the more remote of those various nations; but he makes some mention of those of Xila [Gila], as living fourteen leagues west of the Piros of New Mexico. These did not cultivate the soil, and were mere hunters; but about fifty leagues farther north, he makes especial mention of the province of the Apaches de Navajo, who are a highly agricultural people. This is the most warlike of the Apaches nations, as the Spaniards have learned by their own experience. The territory extends fifty or sixty leagues, and abounds with mines of alum. They are so numerous that they may in two days collect thirty thousand warriors. They inhabit

caverns and subterraneous places, in which they deposit their crops of grain. Notwithstanding the exaggerations, and although the Indians in that vicinity who live under ground are distinct from the Navajos, these are described with sufficient accuracy, in reference both to locality, habits, and hostility to the inhabitants of New Mexico. It appears that Benavides succeeded in partly converting one of their chiefs and making a temporary peace.

The names of Hemes, Queres, and Taos, agree with those given by Castañeda. The imaginary Quivira is placed by Bonavides far to the north-west, in the same quarter as had been designated by Juramillo. The nation which he calls Xumana, and which he places more than one hundred leagues east of Santa Fe, can hardly be the Ximena of Castañeda, which he places in the vicinity of Cicuye. Benavides agrees exactly with Castañeda as to the intense cold of the winter.

6. *Climate.*

The observations respecting Climate, in the first part of this Introduction, were made principally in reference to its effect on the means of subsistence and habits of the Indians. The materials collected on that occasion suggested the possibility of discovering some general laws, to which, though not immediately connected with the researches of our Society, it seemed to me desirable to call the attention of those who occupy themselves with those objects. Tabular statements are annexed for that purpose, extracted from three sources, viz. : the report of the Surgeon General of the United States with the notes of the late lamented Dr. Samuel Forry ; the reports of the Regents of the University of New-York ; and the various observations collected in the Boston American Almanac, from which last I had not time to make more than partial extracts.

I have already alluded to the fact pointed out and demonstrated by Mr. Lawson, the Surgeon General, that the vicinity of our great lakes had a tendency to modify the climate and to render it more uniform. It has also been shown (pages xxviii to xxx) that along both the sea-shore and the Mississippi, the mean annual temperature, in as far as it is regulated by the latitude, decreases in a greater ratio as the distance from the equator increases; that the great difference of climate, between places situated under the same latitude and at the same elevation above the sea, consists in the distribution of the temperature amongst the several seasons of the year; that in America the greatest difference is found in the winter months, and that, under the same latitude, the climate becomes more and more unequal, on receding from the sea-shore westwardly towards the interior. But as the observations made under the direction of the Surgeon General embraced only the forts along the sea-shore and the northern and western frontiers of the inhabited portion of the United States, these conclusions were deduced from comparing the climate along the sea-shore with that of the country bordering on the Mississippi or beyond it. The information respecting the intermediate countries, within my reach or which I had time to analyze, is yet very limited. In the latitude of about thirty-eight and a half to forty-one and a half we find the following results :

	lat.	lon.	MEAN TEMPERATURE.		THERMOMETER DAYS.		
			annual.	winter.	highest.	lowest.	range.
Fort Columbus, N. Y. harbor	40° 42'	74° 12'	53.00	32.39	97	2	95
Fort Mifflin, Delaware	39° 51'	75° 12'	55.98	33.11	95	8	87
Washington City	38° 53'	76° 55'	56.57	37.76	93	9	84
Steubenville on the Ohio	40° 25'	80° 41'	51.56	30.67	95	-2	97
Louisville, do.	38° 12'	85° 38'	54.94	36.55	92	-3	101
St. Louis on Mississippi	38° 26'	90° 8'	58.14	37.67	96	7	89
Fort Armstrong, do.	41° 28'	90° 33'	51.64	26.28	96	-10	106
Council Bluffs on Missouri	41° 45'	96°	53.67	24.47	104	-16	120

Between the latitudes about 42° 30' and 43° 20', in the State of New-York, we have

	Loc.		MEAN TEMPE- RATURE.		THERMOMETER. DAYS.			Elv's above sea.
	Jan.	Jan.	annual.	winter.	highest	lowest	range.	
Granville, s'tee of Champlain R.	47° 30'	73° 17'	46.69	19.45	98	-25	123	
Lansingburgh, Hudson R.	42° 47'	73° 40'	48.90	22.92	101	-20	121	120
Albany, do.	42° 39'	73° 44'	50.31	24.06	97	-11	108	130
Johantown, s. of Mohawk Vall.	43°	74° 23'	44.32	21.46	94	-20	114	
Cherry Valley, height of land	42° 48'	74° 47'	45.92	22.90	85	-17	102	1335
Utica, Mohawk R.	43° 06'	75° 13'	47.19	23.36	89	-19	101	173
Cortland, br. of Chenango R.	42° 38'	76° 11'	46.18	22.79	90	-11	101	
Auburn, Seneca R.	42° 53'	76° 28'	47.60	25.04	86	-6	102	650
Ithaca, so. of Cayuga L.	42° 27'	76° 30'	50.23	26.77	87	-7	104	417
Middlebury, Genesee R.	42° 49'	78° 10'	46.60	27.92	82	-9	101	
Springville, Cattaraugus Co.	42° 30'	78° 50'	48.30	25.28	91	-12	103	1065

The apparent anomalies, such for instance as "Ithaca," must be ascribed to some local causes. In this instance it appears to be due to the situation of Ithaca at the southern extremity of Cayuga Lake.

It will appear by the tabular statements that the mean temperature of the autumn is generally higher than that of spring, and that of the month of October higher than that of April. Besides some of the places situated in the northern and north-western districts of the State of New-York, the exceptions, that is to say the places where the temperature of either the spring or the month of April or of both is higher than that of autumn or of the month of October or of both, are, Chapel Hill in North Carolina, Savannah, Steubenville, Louisville, Nashville, Natchez, and St. Louis.

But a comparison of the mean temperature of the several seasons or months is not sufficient to exhibit a correct view of the climate of America. One of its prominent characteristics consists of the great and sudden variations of the temperature during the same month, often between one day and the next following, sometimes during the same day. One of the annexed tables shows the average range, or difference between the hottest and coldest day for each month of the year in most of the posts where observations were made under the direction of the Surgeon General of the army. But even this does not show how sudden the transitions often are. Thus the following changes took place about three miles north of the city of New-York, in May, 1848:

{	2d	May, 3 P. M.,	thermometer in open air,	50°
{	3d	"	"	64°
{	14th	"	"	57°
{	15th	"	"	64°
{	16th	"	"	74°
{	23d	"	"	64°
{	24th	"	"	58°
{	25th	"	"	74°
{	30th	"	"	70°
{	31st	"	"	58°

It has been understood that, in France and in some other parts of Europe, not only the barometrical observations of one year, correctly made and with good barometers, were sufficient to ascertain the elevation of a place above the level of the sea, but that the observations of a single month, that of October, were sufficient for that purpose. It is probable that whenever the observations shall be made in America with perfect instruments, those of one year will be found sufficient to ascertain the elevation of a place. But it is doubtful whether those of any one month will be sufficient, and still more so whether this will be found to be the month of October. The last annexed table shows the average height of the barometer in several places, for those months in which it is nearest to the mean height for the whole year. The places where reliable barometrical observations have been made are but few, and some that are valuable and which I did not transcribe, will be found in the Boston American Almanac.

There is a correspondence between the fluctuations of the thermometer and those of the barometer. This is very visible when comparing extremes. The temperature is nowhere more uniform than under the Equator; and there the fluctuations of the barometer are not perceptible. A single observation is sufficient to ascertain the elevation of any place near the Equator, and at some distance from it between the tropics. And it may be said generally that the fluctuations of the barometer become sensible north or south of that region, and increase gradually in proportion to the distance from the Equator.

By recurrence to the last tabular statement, it will be seen that in the two most southern places, New Orleans and Natchez, lat. $30^{\circ} 10'$ and $31^{\circ} 34'$, the range of the annual fluctuations of the thermometer was 63° , and the range of the annual fluctuations of the barometer $\frac{3}{8}$ th of an inch; whilst in the three first on the list, Cambridge, Oneida Conference, and North Salem, between lat. $41^{\circ} 20'$ and $42^{\circ} 23'$, the range of the annual fluctuations was about 100° , and the range of the annual fluctuations of the barometer was more than one inch and $\frac{1}{4}$ ths. In the middle division, which includes six places, the correspondence is less remarkable. Yet in four of them, Rochester, Fredonia, Steubenville, and Savannah, the average range of the annual fluctuations of the thermometer amount to 93° , and the average range of the annual fluctuations of the barometer to one inch and a quarter. But New York and Charleston exhibit anomalies; the range of the annual fluctuations of the thermometer being respectively 95° and 69° , whilst the range of the annual fluctuations of the barometer is respectively, almost one inch and three quarters, and more than two inches. In Palermo, Sicily, lat. $38^{\circ} 39'$, range of thermometer 57° , of barometer about one inch.

● The mean annual temperature and average of rain have been obtained in the following places for long periods.

	MEAN TEMPERATURE.		AVERAGE QUANTITY OF RAIN.	
	21 years,		21 years,	
Albany,	21	48.36	21	40.76
Anbora,	19	46.99	18	33.70
Cherry Valley,	16	44.75	14	40.83
Cortland,	14	44.45		
Dutchess,	15	51.25	12	39.32
Fredonia,	16	48.44	15	35.00
Hudson,	14	49.58	14	38.74
Ithaca,	15	48.18		
Johnstown,	14	44.05	14	30.49
Lansingburgh,	20	47.97	20	34.01
Middlebury,	18	46.71	16	30.77
North Salem,	15	48.08	14	40.42
Oneida Conference	17	43.58	17	38.30
Rochester,	15	46.68	14	30.46
St. Lawrence,	10	43.48	18	28.14
Ulica,	21	45.69	19	40.57
Steubenville,	10	50.33	10	35.33

CLIMATE 2.	MEAN TEMPERATURE				MEAN TEMPERATURE		
	ann'l	April	Oct'r.		ann'l	April	Oct'o'r.
<i>Pacific.</i>				Fort Gibson, Arkansas,	63.91	61.98	65.95
Fort Vancouver,	51.75	46.00	54.00	Council Bluffs on Missouri R.	53.67	51.29	55.65
<i>Atlantic.</i>				Houlton, Maine,	41.07	43.25	45.84
Eastport,	42.95	38.69	47.22	West Point, Hudson's Riv.	59.97	51.57	53.11
Portland,	46.67	45.44	49.28	Doches, do.	51.15	46.46	53.37
Portsmouth,	47.21	45.31	50.43	Hudson, do.	47.53	48.90	50.54
Cambridge (near Boston),	48.44	46.55	48.95	Albany, do.	50.31	49.85	51.57
Newport,	50.61	46.41	54.45	Lansingburgh, do.	48.90	48.36	45.89
New York Harbor,	53.00	49.80	55.82	North Salem, Titicus Riv.	49.93	47.58	49.39
Fort Mifflin, Delaware,	55.28	52.16	57.30	Cherry Valley, height of land,	45.92	42.66	51.67
Washington City,	56.57	55.73	57.17	Cortland, br'ch Chenango R.	40.18	46.47	47.90
Fort Monroe (near Norfolk),	61.43	58.24	63.78	Ithaca, sou. Cayuga Lake,	50.73	50.93	49.85
Fort Johnson, N. Car.	66.96	65.28	69.11	Springville, Catsaugus,	48.30	52.11	45.25
Charleston,	65.78	65.47	67.32	Granville, sou. Champlain R.	40.69	45.54	47.34
Savannah,	64.62	67.43	64.53	Johnstown, no. Mohawk Val.	44.39	49.08	47.11
St. Augustine,	72.66	70.06	73.83	Utica, Mohawk Riv.	47.19	49.91	49.95
Key West,	76.09	75.69	76.76	Auburn, Seneca Riv.	47.60	45.60	49.04
<i>Gulf of Mexico.</i>				Middlebury, Genesee Riv.	46.69	47.07	44.20
Tampa Bay,	73.49	73.79	75.93	Potsdam, near St. Lawrence R.	45.78	45.59	46.54
Fort Clinch (near Pensacola),	69.14	68.62	70.27	Chapel Hill, N. Car.	50.90	43.11	54.29
Fort, near Orleans,	71.25	70.00	72.19	Steubenville, on Ohio Riv.	51.58	56.00	49.00
<i>On the Mississippi.</i>				Louisville, do.	54.04	60.00	52.00
Natchez,	65.10	69.03	68.23	Nashville, Cumberland Riv.	54.29	61.92	55.30
St. Louis,	57.14	59.69	56.84	Edinburgh,	47.51	45.94	46.37
Fort Armstrong, Rock River,	51.64	51.20	54.56	Moscow,	40.10	46.80	50.24
Ft. Crawford, Prairie du Chien,	45.32	43.92	45.45	London (environs),	51.30	44.60	52.40
Ft. Snelling, mouth St Peter's,	45.83	46.00	49.21	Paris,	57.60	53.00	61.00
<i>On and near the Lakes.</i>				Montpellier,	59.40	57.00	61.83
Rochester,	47.75	48.80	47.45	Nice,	61.40	57.00	65.00
Niagara,	51.69	47.52	58.94	Naples,	63.94	May	Nov.
Falls of St. Mary's,	41.30	38.50	45.52	Palermo,	62.04	61.98	
Fort Howard, Green Bay,	44.92	43.28	47.51				

CLIMATE 3.	RANGE OF THERMOMETER DURING EACH MONTH OF THE YEAR.											
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Fort Vancouver,	39	23	28	29	43	50	55	51	45	18	96	23
Fort Brady,	61	76	58	44	47	45	45	35	35	43	43	49
Houlton, Maine,	65	53	65	50	52	52	45	20	45	48	56	57
Fort Snelling,	62	64	57	51	46	35	33	33	41	54	53	57
Fort Sullivan,	55	58	47	43	41	41	36	36	41	43	41	51
Fort Howard,	60	65	69	56	50	51	42	39	50	55	46	56
Fort Peble,	51	47	50	36	37	35	34	33	33	39	35	50
Fort Niagara,	52	49	42	46	43	29	34	30	35	32	37	45
Fort Constitution,	52	48	51	34	40	32	33	29	32	40	36	52
Fort Crawford,	60	78	50	56	50	41	31	40	45	50	66	62
Council Bluffs,	72	71	61	64	54	42	40	45	57	69	69	69
Fort Wolcott,	43	41	37	34	36	30	24	23	31	36	36	43
Fort Armstrong,	56	62	57	49	45	39	34	33	44	49	47	57
West Point,	54	54	56	45	40	32	33	31	36	41	38	47
Fort Columbus,	44	48	49	45	41	37	34	31	36	41	38	41
Fort Mifflin,	31	44	40	46	49	44	24	31	44	41	45	25
Washington City,	43	40	42	42	35	30	30	30	37	44	38	44
Jefferson Barracks,	50	59	45	45	43	36	36	30	37	49	42	50
Fort Monroe,	39	33	34	38	20	25	24	21	29	27	33	37
Fort Gibson,	59	50	54	53	43	34	31	30	45	55	54	62
Fort Johnston,	35	39	30	30	21	19	15	15	22	39	30	37
Fort Moultrie,	45	38	36	29	24	18	12	13	13	30	35	33
Fort Clinch,	46	41	35	36	27	10	10	19	20	37	44	42
Fort near N. Orleans,	47	30	37	35	27	21	16	20	24	34	39	41
Fort Marion,	39	28	23	20	17	16	14	19	15	29	30	30
Key West,	23	20	20	19	15	13	11	14	11	15	15	15
London (environs of),	33	35	36	43	45	41	42	37	41	38	34	23
Montpellier,	26	25	25	23	22	24	22	21	20	23	22	16
Nice,	31	21	24	23	26	20	15	16	21	22	18	10
Naples,	20	20	31	45	35	32	29	29	26	28	28	27

CLIMATE 4.	COMPARED RANGE OF THERMOMETER AND BAROMETER.										
	lat.	long.	elevation	Mean days.			Mean days.			range	
				annual	highest	lowest	annual	highest	lowest		
Cambridge,	42° 23'	71° 08'		44.44	100	-8	108	99.02	30.70	28.56	2.13
Onida Conference,	42° 55'	75° 46'	1260	43.09	93	-15	108	99.58	29.58	27.47	1.70
North Salem,	41° 20'	74° 37'	170	49.23	96	-5	101	99.45	30.92	28.92	1.70
Steubenville,	40° 25'	80° 41'	670	51.58	95	-2	97	99.49	29.80	28.60	1.20
Rochester,	43° 1'	71° 51'	306	47.75	96	1	95	99.54	30.11	28.78	1.33
New-York,	40° 42'	74° 6'		53.00	97	2	95	99.90	30.47	28.26	1.64
Fredonia,	42° 38'	79° 24'	744	51.15	93	0	93	99.69	30.11	29.33	1.18
Savannah,	32° 02'	82° 76'		64.62	104	15	87	30.02	30.61	29.37	1.24
Charleston,	32° 42'	79° 56'		65.78	90	21	69		30.76	28.78	1.94
New Orleans,	30° 10'	89° 32'		71.25	94	30	64	30.15	30.57	29.80	0.77
Natchez,	31° 34'	91° 25'		65.10	93	31	62	29.63	30.34	29.30	1.04
Palermo,	39° 38'			63.24	93	36.20	56.80	99.70	30.17	29.11	1.06

BAROMETER.
MEAN HEIGHT IN INCHES.

	annual	April	June	July	October	Novem.	Decem.
Rochester,	29.55	29.58	29.54	29.52	29.60	29.54	29.56
New-York,	29.98	30.00	30.14	29.89	30.10	29.90	29.96
North Salem,	29.45	29.49	29.47	29.42	29.50	29.46	29.43
Fredonia,	29.50	29.56	29.09	29.59	29.73	29.55	29.57
Millville,	29.32	29.37	29.36	29.34	29.49	29.21	29.37
Onida Conference,	28.63	28.72	28.65	28.64	28.72	29.44	29.57
Syracuse,	29.53	29.53	29.54	29.44	29.68	29.40	29.50
Cambridge,	29.93	29.96	29.89	29.85	29.96	29.81	29.90
Savannah,	30.03	30.08	30.05	30.02	30.04	30.05	30.09
Steubenville,	29.42	29.42	29.44	29.44	29.45	29.30	29.44
Natchez,	29.82	29.79	29.81	29.80	29.87	29.86	29.83
New Orleans,	30.15	30.10	30.09	30.16	30.12	30.16	30.26
Palermo,	29.70	29.68	29.78	29.71	29.69	29.78	29.66

ADDITIONAL NOTE.

It is obvious that, in order to devise a character, either alphabetic or syllabic, for an unwritten language, an analysis of the sounds belonging to it is an indispensable preliminary. As we can have but an imperfect knowledge of those of the Polynesian languages, we may not be able to prepare such a notation; but it is believed that, from the data within our reach, we may show that the object is practicable, and point out the principles on which the character should be constructed.

Mr. Buschmann, in his remarkable work on the languages of the Marquesas and of Tahiti, observes that, in order to express objects or notions previously unknown to the natives of Polynesia, the American and English missionaries have added to the Polynesian dialects words borrowed from

various languages ; and he quotes as instances : frog, *rana*, from the Latin ; horse, *hipo* from *innos* ; lamb, *arenio* from *aprior* ; bread, *areto* from *apros* ; serpent, *nahesa* from the Hebrew *nahash*, as also *melahi*, angel, &c. He also gives a long list of words borrowed from the English which have been introduced into the Hawaiian language. Such are *poute*, book ; *inica*, ink ; *hipa* or *bipa*, sheep ; *hoki*, horse ; *palaoa*, flour ; *paoula*, powder ; *palaou*, plough ; *capena*, captain ; *capiki*, cabbage ; *cavele*, towel ; *kila*, steel ; *coucoula*, school ; *courina*, corn ; *bea*, bear ; *baca*, tobacco ; *pasoa*, pass-over. Similar instances of words borrowed from the English or French are also found, though not to such an extent, in the languages of our northern Indians ; but, instead of borrowing words from other foreign languages, there has been among these a general effort to express objects new to them, by words derived or compounded from their own languages ; and the same mode has been adopted by our missionaries, for the purpose of conveying religious instruction. The consequence of the course, adopted by the missionaries in Polynesia, has been a considerable alteration in the native languages, not only with respect to proper names, but in several other instances, and which has extended even to the introduction of new sounds altogether foreign to those languages.

Another important observation of Mr. Buschmann has already been alluded to. All the Polynesian languages are derived from the Malay ; but he considers them as having degenerated from the original type, by the successive dropping off of several consonants and among them of the sibilant. The place of the discarded sound has been occasionally supplied by *v*, *m*, *l*, *r*, *n*, or *k*, but more generally by *h*, which seems to have been the general burying-ground of consonants. In many instances the consonants have been wholly suppressed, and there is a multitude of words consisting altogether of vocal sounds. The nasal consonant is found only in the languages of Tonga, New Zealand, and

Rarotonga. In Tahiti, the Marquesas, and the Sandwich Islands, the simple *n* has been substituted. The *s* is occasionally found in the Tonga, but is wanting in all the other Polynesian languages. On the principle that the most strongly articulated languages had preserved a nearer similarity to the original type, and that the most degenerated were those most deficient in consonants, Mr. Buschmann has made a descending scale of the six principal languages, viz. Tonga [Friendly Islands], New Zealand, Rarotonga, Tahiti, the Marquesas, and the Sandwich Islands. Not but that there are cases, where some of the lowest dialects are superior in certain particulars to those of a higher class.

I was mistaken in saying, that Mr. Hale was the only philologist who had heard Polynesian sounds from the mouth of natives. Mr. Adelbert Chamisso appears to have made part of the Russian expedition, under the patronage of Count Romanzoff, in the years 1815–1818. In his treatise on the Hawaiian language, he counts seven certain consonants, *h, k, l, m, n, p, w*, but admits *t* and *r*, and quotes *b* and *d* from a missionary spelling-book. He gives some instances of the transmutation of proper names, rendered necessary on account of the peculiar characteristics of the language; *Bonepate* for Bonaparte; *Beluka* for Blücher; *Ladana* for London; and he also gives the substitution of *Kakerema* for Sacrament. Finally he reckons not less than eleven diphthongs, viz. *ae, ai, ao, au, ei, eu, ou, oa, oe, oi*, and *iu*, to which should probably be added *ua*. But he adds to the list *aa, ee, ii, oo, uu*, which to me is unintelligible. For a diphthong to the ear always consists of two different vocal sounds blended together; and two identical vocal sounds never can be thus blended; *aa* never can be sounded otherwise than as the repetition of the vowel *a*, and forms simply two distinct vowels and no diphthong whatever.

It has already been suggested that, if practicable, no other character should be used than those of our own al-

phabet; that every syllable consisting of a single vowel should be expressed by our vocal characters A, E, I, O, U, pronounced as has been stated, that is to say, according to the Italian pronunciation; that every syllable, consisting of a consonant followed by a single vowel, should be expressed by that consonant alone if the following vowel was A, and that if followed by either of the other four vowels, these should be designated* by signs annexed to the consonant.

A single sign (or at most two) will be sufficient, as it may (always in an uniform manner) be placed alternately at the top and at the bottom, and on the right or left of the consonant.* It is clear that the system is complete, so far as relates to any syllable consisting of a consonant followed by a simple vocal sound. It is unnecessary to introduce a character foreign to our alphabet, in order to express the consonant nasal sound, since the letter G may be selected with propriety for that purpose. It remains only to provide for the diphthongs, whether connected with a preceding consonant, or forming a distinct syllable in words consisting altogether of vowels.

In the first case, the consonant with its annexed sign contains the initial sound of the diphthong; and it will therefore be sufficient to insert next to it that vowel which forms its terminating sound. (This should perhaps be a small letter.)

In the case of the diphthong forming a distinct syllable, the initial sound will be represented by its proper character, and the terminating sound by the same sign which represents it in syllables consisting of a consonant and a single vowel. But in order to render the whole system

• With two signs.	M	M,	M,	M'	M'
	ma	me	mi	mo	mu
With one sign,	M	'M	M'	,M	,M,
	ma	me	mi	mo	mu

It must be understood that these added signs ought to form an integral part of the letter, and not a separate diacritical mark.

complete and uniform, it may be necessary to use in every instance an additional sign, the cedilla or any other which may prove convenient, for the purpose of designating the sound *a*, whether when following a consonant, or in any other case.

In the Hawaiian translation of the Bible there are abundant instances of words consisting exclusively of vowels. It is evidently impossible for us who have never heard these languages spoken, to tell how they are to be divided into syllables, and which of them consist of diphthongs properly so called. The work can be performed only by missionaries or philologists on the spot, and thoroughly acquainted with the languages.

It has been stated that the missionaries had considerably altered the Polynesian languages by the introduction of new words and even of new sounds. Our business now is only with the sounds. It is true that in that respect the alteration is chiefly confined to proper names. But even in that case, in what consists its utility? Take the two most important names, "Jesus Christ." Of what use is it that the natives of the Sandwich Islands should pronounce them in conformity with the English translation, whilst the English themselves, as well as every other nation, do not pronounce them in conformity with the Greek text? Christ is not *Xp̄istos*, and the *J* of Jesus, which in the Greek is a vowel, is in English a double consonant. The word "Kristo," which has been adopted by the missionaries of the Sandwich Islands, is indeed preferable to "Kraist," as it was written at first. But it contains a double consonant *Kr*, which all the Polynesian languages abhor, and the *s* which does not exist in the language. We have already seen that, for that double reason, the word *Sacrament* has been converted into *Kakerema*; and that was a good precedent. *Kristo* could not be pronounced by the natives, otherwise than by substituting *Keriketo*, or *Keriheto*.

Whether the missionaries have taught the natives of the

higher classes educated under their care, how to pronounce the new sounds which they have introduced, or whether the characters representing such sounds are not pronounced at all, is not known to me. But if pronounced, it must be exclusively by those who have been thus educated. There can be no doubt that the sincere and devoted men, who sacrifice worldly comforts and happiness, for the sake of bringing barbarous nations within the pale of Christianity, use their best endeavors for diffusing its light through all the classes of society. And where, as in the Sandwich Islands, they have obtained in fact a controlling influence over the temporal concerns of the nation, they have also assumed the responsibility of providing, as far as practicable, for the temporal welfare of the poorest and oppressed as well as for that of the most powerful of the people—for that in short of the masses and not of the few. If they have not succeeded better, it must be ascribed to the obstacles, heretofore insurmountable, interposed by the existing state of society, by the monarchic, oligarchical system, imported from Asia, which pervades Polynesia, and prevails nowhere more strongly than in Tahiti and in the Sandwich Islands.

Viewing the subject exclusively in reference to the spiritual concerns of the people, it is certain that, so far as the translation of the Bible contains new sounds and probably new words, it is unintelligible to those who have not been educated by the missionaries themselves. But moreover, the great mass of the people, of the working, oppressed cultivators of the soil, cannot read at all, and as yet can receive none but oral instruction. It is precisely this evil to which we wish that an efficient remedy may be applied. The object of the syllabic character is to enable every individual in the nation to learn, within a very short time, how to read, write, and spell, and thus to diffuse, among the whole mass of the people, the influences of Christianity and of useful knowledge. But in order that the plan may succeed, it is absolutely necessary to take as a basis the native lan-

guage as it is spoken by the mass of the people, and to exclude altogether every character intended to represent a sound foreign to the language. We uniformly act on that principle in the education of our own children. We introduce no foreign sound; we make our children pronounce Scriptural proper names in conformity with the English alphabet and with the sounds of the English language; we never attempt to make them pronounce such words as they were pronounced in the original Hebrew text.

It is true that a new translation, or rather a conversion of the translation of the Bible into the proposed syllabic form, will be necessary.* But this but a lesser inconvenience, compared with the immense advantages resulting from a universal diffusion of Christianity and of useful knowledge. The plan, which has so completely succeeded in the Cherokee language, cannot fail with regard to languages which have precisely those properties that rendered its application practicable in the Cherokee. There may occur some difficulties in the details which we cannot anticipate; but we have, as I think, successfully shown that there is none which cannot be surmounted.

Since the peculiar mode of forming syllables in the Polynesian languages is precisely the same, which enabled Guess to succeed completely in his invention of syllabic characters for the Cherokees, there can be no doubt of the practicability of devising a written language for the Polynesians, founded on the same principle. But it does not necessarily follow that the application of an alphabet, formed on the same principle as those of the European languages,

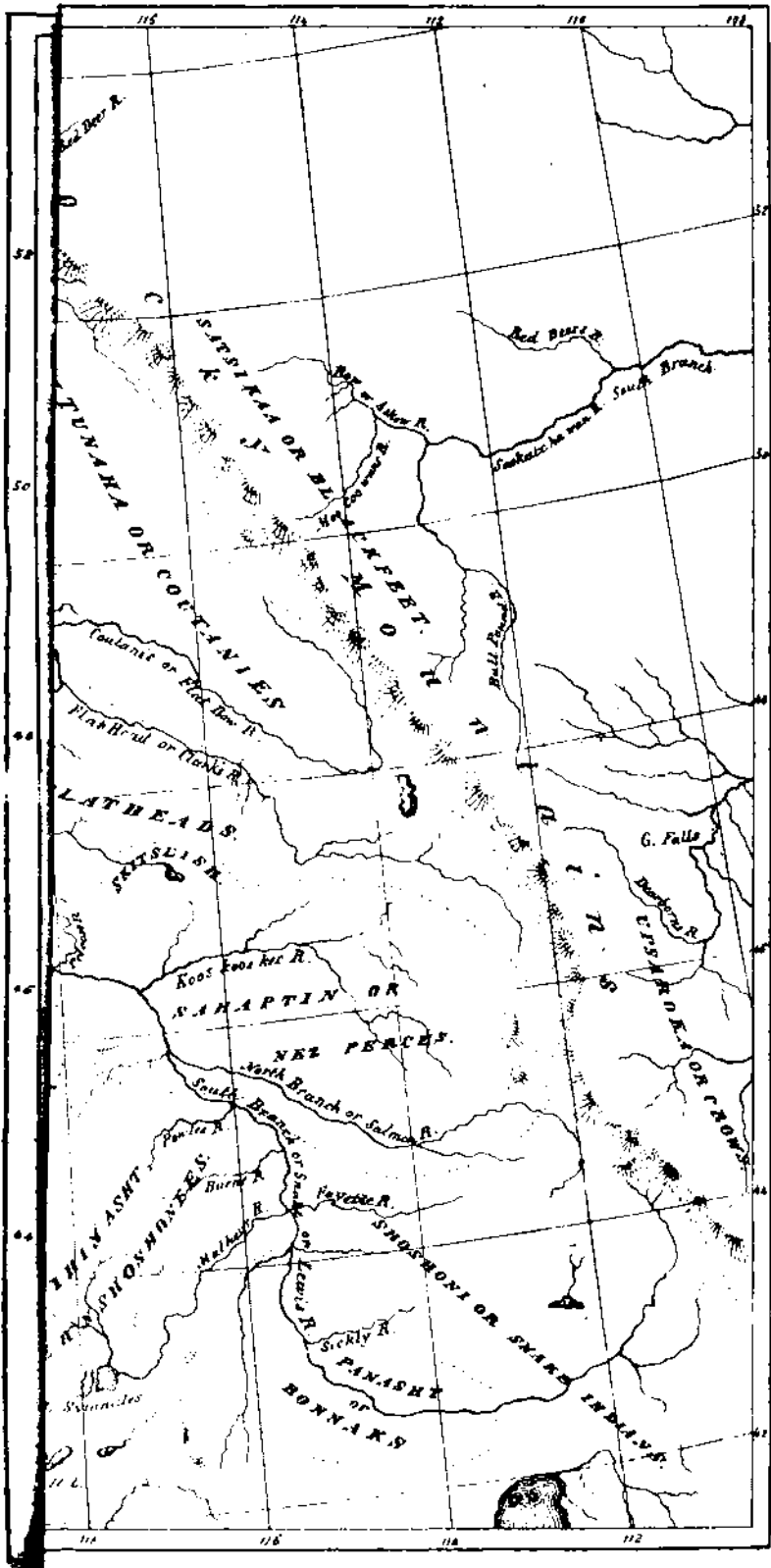
* I take it for granted that the existing translations, either in the Hawaiian or other Polynesian languages, have been well executed. A singularity has struck me in that of the Sandwich Islands. The Greek word *Logos* (here properly expressed by *Logou*) has been preserved in the first verse of John's gospel. This word, without an interpretation, is altogether unintelligible to any person unacquainted with the Greek language. I cannot understand what objection there can be to the ordinary translation, in English "the Word;" in French "la Parole," and a similar equivalent in every other European translation.

may not be preferable for them. Having never heard the sounds of the Polynesian languages from the lips of natives, I have but imperfect and indistinct notions in that respect, and cannot therefore decide which of the two modes should be preferred. But the literal alphabet must, if adopted, be perfect. For each sound there must be a corresponding written character; the same character must in no case whatever express two different sounds; and no character must be admitted expressive of sounds foreign to the language.

The manner in which new words should be introduced, expressive of objects and notions previously unknown to a savage nation, is altogether a distinct question. It seems to me that the mode which has been adopted in Polynesia, was unfortunate. Instead of enriching the native language with words connected with it and derived from its own powers and resources, foreign words have been introduced, from various languages. Of the manner in which this has been effected we have given a variety of instances. It may be that the nature of the Polynesian languages rendered this course unavoidable.

In the suggestions respecting diphthongs, it was attempted to render the written character more perfect, by the adoption of signs or modifications, through which diphthongs might always be distinguished from simple vocal sounds. This would be an improvement; but, if thought too complex, it is not absolutely necessary. I am not aware that any characters, exclusively expressive of diphthongs, can be found in any of the ancient or modern languages of Europe, with the exception of the Russian, which has distinct signs for the diphthongs *ia*, *ie*, and *iz*. In all the others the diphthongs, if I may use the expression, have been left to provide for themselves; that is to say, the distinction between the cases in which two vowels are to be pronounced as so many distinct sounds, and those cases where they are to be pronounced as a diphthong, appear to be regulated solely by practice and usage. Some illus-

trations will explain my meaning. I select in English the words "newest" and "towel." The first might be pronounced either *ne-west*, or *new-est*; and the last *to-well*, or *tow-el*. It is usage alone which decides that the last pronunciation is, in both cases, that which is correct, that the diphthongs are not *we* but *ew* and *ow*. In French the character *y* in the middle of a word is generally used to express two *i*'s. The word "paysan" is pronounced *pai-isan*, in which case there is no diphthong to the ear. But the word "Payen" is pronounced *pa-yen*, in which case the last syllable is a nasal diphthong. Usage alone teaches the difference. Guess also, in his syllabic Cherokee alphabet, has no character expressive of diphthongs. Whenever two or more vowels follow each other in the same word, it is usage alone which teaches, whether any, and which of them must be pronounced as a diphthong.



Deer R.

52

50

TUNAKA OR COYANIES
Cowlitz or Hoop R.
Plaquet or Clack R.

WILPEKIA OR BLAKEFEET
Willapa R.
M O

Red Deer R.
South Branch

NEW INLET R.
Columbia or Wen R.

LATHEADS
FRISLISH

KOO KOO AIC R.
S. MARTIN OR

NEZ PERCES
North Branch of Salmon R.

G. Falls
Duckhorn R.

CASCADE MOUNTAINS
OR CROWD
72 70 68

South Branch of Salmon R.

THE WASHT
WASHONNINES
Pauite R.
Burr R.

Yvette R.
Keweenaw R.

SNOHOMISH OR SNAKE INDIANS
Sickly R.
FINISH
or
BONNAKS

116

118

118

112

PART FIRST.

HALE'S INDIANS OF NORTH-WEST AMERICA.

ETHNOLOGY.

ALPHABET.

MR. HALE, in order to express with more precision the sounds of the languages of North-west America, introduced a number of new characters, generally borrowed from the Greek alphabet. It appeared necessary, specially in a general comparative Vocabulary, to reject these, and to assimilate as far as practicable the alphabets of the Oregon languages with those already obtained of the Indian languages east of the Stony Mountains. Mr. Pickering in his plan for an uniform orthography had not introduced new characters; and Mr. Duponceau agreed with me in the opinion that new signs or characters would create confusion, and that in a general view, the extension to unwritten languages of the Roman alphabet, which is that of the several European tongues, was favorable to philological researches. Mr. Hale's alphabet has therefore been modified, and the following substituted throughout all his vocabularies, grammars, and philology, viz.

a	as	a	in	mat, mart,	Guttural sounds	ekh	none	either in Eng- lish or French	
				father, all		th	as	tʰ	in thin
e	as	e		met		zh		tʰ	this
				mate		j		x	glazier
				ay				s	measure
i	as	i		pin, machine		g		ʒ	go, give
				ee, ea		h			
o	as	o		meet, meat		w			
				not, no		y			
				oe, ow		b, p			} as in English
u	as	u		toe, low		d, t			
				ball, full		f, v			
				oo		l, m, n, r			
				boot, fool, foot		s, sh			
				ou		k			
(Sheva)	u	(italic)	u	you					
				fur, burn, hut					
				dug, dull, cut					
				her					
				i					
Nasal	ng	(ital.)	ng	sir					
				sang, sing, song					
				bung, tongue					

The Roman characters, I to XII and XIV, designate families of languages. Mr. Hale's No. XIII was the Black-foot, east of Rocky Mountains. The capital letters A to Z designate languages; the ordinary *b* to *r* sub-dialects. But in the general Comparative Vocabularies of all the Indian tribes, east and west of the Stony Mountains, it was found necessary to alter Mr. Hale's Nos. as followeth:

<i>Instead of</i>	<i>Substituted</i>	<i>Instead of</i>	<i>Substituted</i>
Athapascas No. I	No. III	Jacon No. VIII	No. XXVIII
Kitunsha II	XXII	Lutuami IX	XXIX
Selish III	XXIII	Saste X	XXX
Sahapin IV	XXIV	Palainah XI	XXXI
Watlata V	XXV	Shoshonoe XII	XXXII
Tahimook VI	XXVI	Wakash XIV	XXI
Kalapuya VII	XXVII		

EXTRACTED FROM

MR. HALE'S ETHNOLOGY.

According to Mr. Hale there are four general divisions in that section of the continent, between the Rocky Mountains and the Pacific, which extends from the Eskimaux to the Californian peninsula. This section embraces a greater number of tribes speaking distinct languages than are found in any other territory of the same size.

1. *The North-west Division.*—The tribes of this class inhabit the coast between the peninsula of Alaska, in latitude 60°, and Queen Charlotte's Sound, in latitude 52°. This part of the country was not visited by us, and the information obtained concerning it was derived chiefly from individuals of the Hudson's Bay Company. They described the natives as resembling the white race in some of their physical characteristics. They are fair in complexion, sometimes with ruddy cheeks; and, what is very unusual among the aborigines of America, they have thick beards, which appear early in life. In other respects their physiognomy is Indian,—a broad face, with wide cheek-bones, the opening of the eye long and narrow, and the forehead low.

From the accounts received concerning them they would appear to be rather an ingenious people. They obtain copper from the mountains which border the coast, and make of it pipe-bowls, gun-chargers, and other similar articles. Of a very fine and hard slate they make cups, plates, pipes, little images, and various ornaments, wrought with

surprising elegance and taste. Their clothing, houses, and canoes, display like ingenuity, and are well adapted to their climate and mode of life. On the other hand, they are said to be filthy in their habits, and of a cruel and treacherous disposition.

2. *North Oregon Division.*—This includes all the other tribes north of the Columbia, some of the Wallawallas excepted, and three or four tribes south of that river. It includes the Nootkas and other tribes of Vancouver's Island, the Tahkali, Selish, Coutanie, Tshinuk, and Killamuk families. The people of this division, particularly along the coast, are among the ugliest of their race. They are below the middle size, with squat forms, broad faces, and a coarse rough skin, of a dingy copper complexion. Those of the interior, the Carriers, Atnahs, and Selish, are of a better cast, with features less harsh. In the coast tribes, the eye has frequently the Mongol oblique direction. They are of moderate intelligence, dirty, indolent, deceitful, passionate, superstitious, addicted to gambling, and grossly libidinous. These qualities, most conspicuous in the tribes near the mouth of the Columbia, are less marked in the interior and towards the north. At the mouth of the Columbia also, particularly amongst the Chinooks, the custom of compressing the head prevails to the greatest extent. It has spread to a certain distance north, south, and east; the degree of distinction diminishing as we recede from the centre. The pronunciation of all these tribes is extremely harsh; that of the next division soft and harmonious.

3. *South Oregon Division.*—This embraces the Sahap-tin family, (Wallawallas and Nez Percés,) the Waiilatpu, (Cayuse and Molele,) the Shoshonees, and some other southern tribes along the coast. They are similar though inferior to the Indians east of the Rocky Mountains, cold, taciturn, high-tempered, warlike, fond of hunting. The contrast is very striking between the Chinooks below, and the Wallawallas above the great falls.

4. *The Californian Division*.—Distinguished by their dark color, lowest in intellect of all the North American tribes, indolent, timid, and submissive; collected like cattle and set to work in the missions—an experiment which, if tried in Oregon, would have failed.

[Mr. Hale's North-west class requires some additional explanation. First, the Nootkas and other tribes of Vancouver's Island belong to it, inasmuch as they partake of the superior character of the tribes of Mr. Hale's North-west Division. Secondly, there is a most material difference between the tribes which inhabit the coast between the peninsula of Alaska, in longitude 151° from Greenwich, and Behring's Bay, or rather Cape Fairweather, in longitude 138° , and those tribes which occupy the sea-coast and adjacent islands, between the 59th and 49th degrees of latitude, between Cape Fairweather and the entrance of the Straits of Fuca, in longitude $125\frac{1}{2}^{\circ}$.

The general course of the sea-coast between the peninsula of Alaska and Behring's Bay, is from west to east; and that section of the country in latitude $59\frac{1}{2}^{\circ}$ to 60° , is generally occupied by the Eskimaux. To this there are two exceptions. The Kenai, in Cook's Inlet, and the Ugaljachmutzi; in longitude 144° to 139° , appear from their language to have great affinity with the Athapascas, with some mixture, however, of Eskimau, and many words which have no apparent affinity with either of those two languages. The habits and character of those several tribes are those of the Eskimaux, and they are in every respect entirely distinct from the more southern tribes.

To those tribes which, as above stated, occupy the country between latitude 59° and 49° , from Cape Fairweather to the Straits of Fuca, belongs exclusively the physical and intellectual superiority which has forcibly struck all those who have visited them, whether Russians, French, English, or Americans.]

The Indians west of the Rocky Mountains seem, on the whole, inferior to those east of that chain, in stature, strength, activity, social organization, religious conceptions. The two classes of peace and war chiefs, the initiation of young men, the distinction of clans or totems, and the various festivals of the eastern tribes, are unknown to those of Oregon. It is doubtful whether they have any idea of a Supreme Being: it was impossible to find, in a single dialect of Oregon, a proper synonym for the word *God*. Their chief divinity is called *the wolf*, a compound half beast, half deity. A certain similarity is found between the natives of Oregon and the Australians, the latter being an exaggerated and caricatured likeness of the former.

The Oregon Indians, especially of the interior, have no fixed habitations, change their place of residence nearly every month, but return regularly to the same place the same month of every year. The Territory abounds in roots, which, without cultivation, grow in sufficient quantities to support a considerable population. More than twenty species are found in different parts of the Territory, which come to maturity at different times, according to which the people remove from one root ground to another. Several kinds of fruits and berries, found at certain seasons in great abundance, cause also a temporary change of place. When the salmon ascends the river, the Indians assemble on the banks of the streams; and again two months afterwards, when the fish floats exhausted down the current, and though very inferior, is taken in large quantities for winter stores. The interior tribes also visit occasionally the region near the foot of the Rocky Mountains, in order to obtain buffalo skins by barter or by hunting. The tribes near the coast are more sedentary. Some do not change their place of residence at all. Others spend the summer on the seashore, and the winter on the banks of an inland stream.

1. *The Tahkali-Umkwa Family.*

The Tahkalis are a branch of the great Athapascas stock. They inhabit the country between the Rocky Mountains and the coast chain, from latitude $52\frac{1}{2}^{\circ}$, where it borders on the Selish, to latitude 56° . They are divided into eleven tribes; the number of persons in each varying from fifty to three hundred. They are a better looking race and rather lighter than the tribes south of them, on the upper Columbia. They are not brave, are excessively indolent and filthy, base and depraved, prone to sensuality, almost devoid of natural affection. Chastity among the women is unknown. The wife of a deceased person is almost burnt alive with the corpse, and becomes for two or three years the servant and drudge of the relations of the husband. They live principally on fish, drink immense quantities of oil, and like putrid meat and roes.

The Sikani, adjacent to them, on the east side of the Rocky Mountains, and speaking a cognate language, differ widely from them. They are hunters, brave, hardy, and active, cleanly, bury their dead, &c.

Three small tribes, speaking dialects of the Tahkali language, have been found at a great distance south of the Tahkalis. The Tlatskanai south, and Kwalhioqua north, are two small insulated bands, neither of them more than a hundred persons, who roam on each side of the Columbia River, near its mouth, being separated from the river and from one another by the Chinooks. They wander in the woods without permanent habitations, subsist on game, berries, and roots; are bold, hardy, wild, and savage.

The Umkwas inhabit the upper part of the river of that name, about latitude 43° ; not more than four hundred persons, having been greatly reduced by disease; live in houses of boards and mats, derive their subsistence in great part from the river, do not flatten the head.

2. *Kituxahas, or Flatbows.*

A tribe of about four hundred people, who wander in the mountainous tract between the two northern forks of the Columbia, on the Flatbow River, bounded eastwardly by the Rocky Mountains and Blackfeet, westwardly by the Selish family, between 48° and 52° latitude. They are great hunters, furnish much peltry; formerly suffered much from wars with the Blackfeet. They resemble in appearance and character the Indians east of the Rocky Mountains, rather than those of the lower Oregon.

3. *Tsihaili-Selish.*

The *Shushwaps*, or *Atnahs*, possess the country on the lower part of Frazer's River. The same dialect is spoken at Friendly Village, on Salmon River, latitude 50½°, and ninety miles from the sea. They are in every respect similar to the Selish. By a late census they amount to four hundred men, and twelve hundred souls.

The Selish, though called Flatheads, do not flatten the head. They inhabit the country about the upper part of the Columbia and its tributary streams, the Flathead, Spokane, and Okanagan rivers. The name includes some independent tribes, and the number of all is estimated at about three hundred souls. They seem to hold an intermediate place between the tribes of the coast and those of the south and east; superior to the Chinooks, but inferior to the Sahaptin. They have strong domestic feelings, and unlike the Sahaptin, take care of old people: seem to have had formerly some vague idea of a Supreme Being, but did not worship him.

The Flatheads derive their subsistence from roots, fish, berries, game, and a kind of moss or lichen, which they find on trees. At the opening of the year, as soon as the snow

disappears, (in March and April,) they begin to search for the *pohpoh*, a bulbous root, shaped somewhat like a small onion, and of a peculiarly dry and spicy taste. This lasts them till May, when it is exchanged for the *spatlam*, or "bitter root," which is a slender, white root, not unlike vermicelli; when boiled it dissolves like arrow-root, and forms a jelly, of a bitter but not disagreeable flavor. Some time in June the *itwaha*, or camass, comes in season, and is found at certain well known "grounds" in great quantities. In shape it resembles the *pohpoh*, and when baked for a day or two in the ground, has a consistency and taste not unlike those of a boiled chesnut. It supplies them for two or three months, and while it is most abundant—in June and July—the salmon make their appearance, and are taken in great numbers, mostly in weirs. This, with these people, is the season when they are in the best condition, having a plentiful supply of their two prime articles of food. During this period the men usually remain at the fishing station, and the women at the camass-ground; but parties are continually passing from one to the other. August, during which the supplies from both these sources commonly fail, is the month for berries, of which they sometimes collect enough both for immediate subsistence and to dry for the winter. The service-berry and the choke-cherry are the principal fruits of this kind which they seek. In September, the "exhausted salmon," or those which, having deposited their roes, are now about to perish, are found in considerable numbers, and though greatly reduced both in fatness and flavor, are yet their chief dependence, when dried, for winter consumption. Should they be scarce, a famine would be likely to ensue. At this season, also, they obtain the *mesawi*, an inferior root, resembling somewhat in appearance a parsnip. When baked it turns perfectly black, and has a peculiar taste, unlike that of any of our common roots. This lasts them through October, after which they must depend principally upon their stores of dried food, and the game (deer, bears,

badgers, squirrels, and wild-fowl of various kinds) which they may have the good fortune to take. Should both these sources fail, they have recourse to the moss before mentioned, which, though abundant, contains barely sufficient nutriment to sustain life.

They live in bands of two or three hundred, for the sake of mutual protection. Formerly much fighting among them; suppressed by Hudson's Bay Company. These bands intermarry. Women gather roots, berries, &c., do much hard labor, but have consideration and authority. The stores of food which they collect are regarded as their own. The men perform the arduous labors of the fishery and the chase. When a man dies leaving young children, his relations seize his horses and most valuable property.

Temporary chiefs by superior wealth, valor, and intelligence: their authority limited, and depend on their talent and energy.

Ceremony called *sumash*, by which the conjurors restore the lost spirit of a man. They regard this as distinct from the living principle, and hold that it may be separated for a short time from the body, without causing death, or the individual being conscious of the loss; but this must be restored as quickly as possible. The conjuror learns in a dream the names of those who have suffered this loss, and informs them of it. The ceremony of restoration then follows, when he selects the particular spirit belonging to each, represented by the splinter of a bone, shell, or wood, and by his invocation makes it descend into the heart and resume its proper place.

They do not worship the prairie-wolf, but suppose that formerly he was endowed with preternatural powers. Thus having visited the tribes on the Spokane River, and demanded a young woman in marriage from each, whenever his request was granted he promised abundance of salmon, and created rapids to facilitate the taking of fish. But the Skitsuish having refused to comply, he created the great falls of

the Spokane, which prevents the fish from ascending to their country.

The Skitsuish, *Cœur d'Alene*, about four hundred souls, live on the lake of that name, above the falls of the Spokane, have no salmon, raise potatoes, and have a tendency to cultivate.

The Piskwaus, on main Columbia, between the Salish proper and the Wallawallas below Fort Okanagan. A miserable, beggarly people; great thieves. Their country very poor in game and roots.

The months of the Piskwaus and Selish are as followeth:

<i>Piskwaus.</i>	<i>Selish.</i>	
akwawus	suslikwa	December & January
akwiraman	ekhwawus, cold	January & February
akspatakiltin	akwiraman, a certain herb	February, &c.
akawaku	akspatru, snow gone	March
katsosuntun	spatium, bitter root	April
etsok	stagemawus, going to root ground	May
kupakalukhtin	itkhwa, camas-root	June
silamp	saankhikwo, hot	July
tshepantun	silamp, gathering berries	August
panpatkikhken	akilues, "exhausted salmon"	September
akaai	ekaai, dry	October
	kinai-etkhuten, house-building	
sustikwa	kesmakwah, snow	November & December

The Skwale, on Puget's Sound; six hundred souls. The Cowelits, south of the Skwale, on a small stream of the Columbia; three hundred souls. The Tsihailish, or Chikailish, between the Skwale and the ocean (Gray's Harbor), separated from Columbia river by the Kwalhioquas (Tahkalis), do not extend north as far as Fuca's Straits; about two thousand souls. And the Nsietshawus, or Killamuks, along the sea-shore, south of the Chinooks; about seven hundred souls. These four tribes, though speaking dialects of the Selish family, resemble the Chinooks in appearance and habits.

4. *Sahaptin.*

These Indians consist of two principal nations, the Sahaptin proper, or Nez Percés, east, and the Wallawallas west, both bounded on the north by the Selish. They compress the head, but less than the Chinooks.

The Sahaptins extend from the Rocky Mountains westwardly, occupying the country watered by the Lewis or Snake River, above the falls from the Peloose to the Waptiacoacs, about one hundred miles, and its northern tributaries, the Kooskooske (Lewis and Clark route) and the Salmon river; extend on the east to the Rocky Mountains, bounded on the south by the Shoshonees, or Snake Indians; about two thousand souls. They resemble more the Missouri Indians than the Selish, have horses, are good hunters, hunt the buffalo; generally superior to the other tribes of Oregon in intellectual and moral qualities, but very independent and fickle.

The Wallawallas, on the territory bordering on the Columbia, for some distance above and below the junction of Lewis river, embrace several independent tribes, Yakemas, Peloose, Klikalats; in all two thousand two hundred souls; resemble the Sahaptin, but less active. Their mode of life similar to the Selish. Salmon their principal food, for catching which, in August and September, they assemble at the falls of the Columbia, where they meet the Chinooks, who go there for the same purpose. Both the Sahaptins and the Wallawallas compress the head, but less than the tribes on the coast.

5. *Waiilatpu.*

These Indians include two tribes, the Cayuse, south of the Wallawallas, on the upper waters of the Wallawalla River, (Falls River and John Day's ditto,) amounting only to five hundred souls, but good warriors, and wealthy; have extensive pasturage and large droves of horses; one chief

having two thousand: and the Molele, west of the Cayuse, south of the upper Chinooks, in the mountainous territory about Mounts Hood and Vancouver (Mt. Jefferson), reduced by disease, in 1841, to 20 souls; probably extinct.

(The territory occupied by those two tribes is so extensive, compared with a population of five hundred souls, that it must be extremely mountainous and unfit for cultivation.)

6. *Tsinuk, or Chinooks.*

These Indians occupy all the lower part of the valley of the Columbia River, below Falls River, and the lower part of the Willamet River. They consisted of a number of independent tribes, but may be divided into two classes, the upper Chinooks, or Watlala, above, and the lower Chinooks, (including the Wahkyekum, the Katlamat, the Chinook proper, and the Clatsops,) below Multnoma Island.

The country of the Watlalas, from Multnoma Island to the falls of the Columbia, when first visited by Lewis and Clark, was the most densely populated part of the Columbia region, and so continued till the year 1823, when the ague fever, before unknown, broke out and carried off more than four-fifths of the population in a single summer. The region below the cascades, or head of the tide, suffered most: the population was reduced from ten thousand to five hundred. The sickness was less destructive above the cascades, where there remained seven or eight hundred souls. These were formerly the worst of the Oregon Indians, quarrelsome, thievish, and treacherous. This was partly owing to their command of the portages, on the line of communication between the interior and the coast, which enabled them to levy tribute, by force or fraud, on all who passed through their country. The reduction of their numbers, and the missionaries, have partly tamed their evil propensities.

The lower Chinooks, below the Multnoma Island, con-

sisted, twenty years ago, of five or six thousand people ; now reduced to a tenth of their former number, and the remnant will probably soon disappear. This nation is the type of the North Oregon division ; approach the Mongol race in their forms and features ; short and square framed, broad faces, flat noses, and eyes turned obliquely upward at the outer corner. Here the compression or flattening of the skull is carried to the greatest extent.

The child, soon after birth, is laid upon an oblong piece of wood, sometimes a little hollowed like a trough, which serves for a cradle. A small pad or cushion, stuffed with moss, is then placed upon its forehead, and fastened tightly, at each side, to the board, so that the infant is unable to move its head. In this way, partly by actual compression, and partly by preventing the growth of the skull, except toward the sides, the desired deformity is produced. A profile which presents a straight line from the crown of the head to the top of the nose, is considered by them the acme of beauty. The appearance of the child when just released from this confinement is truly hideous. The transverse diameter of the head, above the ears, is then nearly twice as great as the longitudinal, from the forehead to the occiput. The eyes, which are naturally deep-set, become protruding, and appear as if squeezed partially out of the head. In after years the skull, as it increases, returns, in some degree, to its natural shape, and the deformity, though always sufficiently remarkable, is less shocking than at first. The children of slaves are not considered of sufficient importance to undergo this operation, and their heads, therefore, retain their natural form. No marked difference of moral and intellectual faculties between those slaves (descendants of prisoners of war) and their masters. Whence it may be inferred that the operation of flattening does not affect those faculties.

The Chinooks are less ingenious than the natives of the north-west coast, but far superior to the Californians. They

make houses of brick and thick planks from the large pines ; a single trunk makes one, or at most two planks ; the houses oblong, with rows of sleeping places on each side, one above the other. Their canoes, made of hollowed trees, sometimes of great size, are of elegant shape, long, narrow, and sharp, light enough to live in a rough sea, but liable to be upset. They derive their subsistence from the sea, and are averse to wandering upon land.

7. *Kalapuya.*

These Indians, bounded on the north by the upper Chinooks, occupy the valley of the Willamet, above the falls, the most fertile district of Oregon, included between the Californian ridge on the east, which divides them from the Waiilatpu (No. 5), and the ridge known as the coast range on the west, beyond which they are bounded west and south by the above mentioned Tlatscanai and Umkwa ; (Tahkali family, who are separated from the ocean, the first by the Killamuks of the Selish family, and the last by the Jakon—No. 8—&c.) The Kalapuyas, formerly numerous, are reduced by sickness to five hundred souls. They are more regular and quiet than the wandering tribes of the interior, more cleanly, honest, and moral than the natives of the coast ; and they might be induced to adopt a fixed residence. But the progress of disease, and of foreign population, will soon make them disappear.

8. *Jakon, or Southern Killamuks.*

A small tribe of seven hundred souls, on the sea-coast, south of the Nsietsshawus, or Killamuks, (Selish family,) from whom they differ merely in language.

9. *Lutuami*—(their proper name.)

Called Tlamatl, or Clamet. Live on the head waters of the river and lake of that name ; a warlike tribe ; attack

the traders who pass through their country on the way to California; always at war with the Shasties and Palaiks, to obtain slaves, whom they sell to the Waiilatpu and Willammet Indians.

10, 11. *Shasties and Palaiks.*

The Palaiks south-east, and the Shasties south-west of the Lutuami, are but little known; they are a wandering people, who subsist on game and fruit, and are dreaded by the traders. Their number, and that of the Lutuami, has been diminished by disease; the three tribes together number about twelve hundred souls. (The Shasties and Palaiks must live on the edge of the Californian great desert.)

12. *Shoshonees, or Snake Indians.*

Bounded north by the Sahaptins, west by the Waiilatpu, Lutuami, and Palaiks; extend eastwardly east of the Rocky Mountains. Mr. Hale says that the Utahs, beyond the Salt Lake, and the Comanches of Texas, are said to speak dialects of the same language. The vocabulary of the Netelas Indians, on the coast of California, latitude 34°, shows evident traces of connexion with the Shoshonees. The country of the Shoshonees proper is east of Snake River. The western Shoshonees, or Wihinasht, live west of it; and between them and the Shoshonees proper, another branch of the same family, called Panasht or Bonnaks, occupy both sides of the Snake River and the valley of its tributary, the Owyhee River. The eastern Shoshonees are at war with the Blackfeet and Upsarokas. The most northern of these have no horses, live on acorns and roots, are called diggers, and considered by our hunters the most miserable of the Indians.

Northern Tribes.

The vocabulary of the language of the Newitts, at the northern extremity of Vancouver's Island, is closely allied

to the Nootka, which appears to be spoken through the whole length of the island, and also, according to Jewitt, by the Klaizzarts—probably the Classets, on the south side of the Straits of Fuca, near Cape Flattery. It is only ascertained that the Classets, and their eastern neighbors, the Clallems, speak a different language from the Chickailish and Nishqually tribes.

Going by land from Puget's Sound to Frazer's River, are several tribes, from south to north, Sukwames, Tshikatstat, Puiale, and Kawitshin, which last are on Frazer's River, speaking a great diversity of dialects as yet unknown. Thence nothing is known of the languages along the coast till Millbank Sound, latitude 52°, where a vocabulary of the language of the Hailtsa Indians has been furnished by the Hudson's Bay Company. This is probably the tribe met by A. M'Kenzie, after leaving Friendly Village, on Salmon River, at which point a different language commenced, (probably the Nass language.)

Southern Tribes.

Along the sea-shore, south of the Jakon, are the Saiustkla, next the Killiwatshat, at the mouth of the Umkwa, and higher up the same river the Tsalel; south of the Killiwatshat are the Kaus, between the Umkwa and Clamet rivers; on the lower part of the Clamet River the Totutune or Rascal Indians, beyond whom the population is very scanty till the valley of the Sacramento. The information varies respecting the similarity of language of the four first mentioned tribes.

Mr. Dana, of the Exploring Expedition, obtained vocabularies of five tribes of the Sacramento; the upper one being sixty miles south of the Shasties, about two hundred and fifty miles from the mouth of the Sacramento; they resemble the Shasties, and were a mirthful race; had no arms but bows and arrows; had had but little intercourse with

foreigners. The other four vocabularies on the Sacramento—Tuzhune, Sekamne, Tsamak, Talatui—were obtained one hundred miles above its mouth: these Indians have the features of the coast tribes, filthy and stupid in look. Throughout the Sacramento plains the Indians live mostly on a kind of cake made of acorns. These dried in the sun, pounded into a powder, kneaded two inches thick, and baked into cakes; black, consistency of cheese, taste not very pleasant, not positively disagreeable.

Five vocabularies of the natives of California have been obtained, viz., at San Raphael, north of San Francisco and of latitude 38° ; La Solidad, on coast, latitude 36° ; San Miguel, fifty miles south-east of last; San Gabriel (Kij), latitude 34° ; and San Juan Capestrano (Netela), twenty miles farther down the coast.

The missions are large inclosures, surrounded by walls of unburnt bricks. The natives there collected, employed in agriculture (partly by persuasion, partly through force), acquired some knowledge of civilized arts; but more died than were born. Within the last ten years most missions have been broken up: most of the natives linger about the towns, and some have returned to their savage brethren.

There are more Californian languages besides those five. The whole sea-coast, from Behring's Bay to Cape St. Lucas, is lined with small tribes speaking distinct idioms.

All the tribes in the interior are said to be proceeding towards the south. The Shoshonees formerly inhabited the country of the Blackfeet; the Shyennes, Kaiawas, and Comanches are mentioned as another instance. The dispersion of many families is remarkable. In the Selish family we find the Atnahs and the Friendly Village in latitude $53\frac{1}{2}^{\circ}$, the Flatheads and Piskwas on the upper Columbia, the Nisqually, Cowelits, and Chikalish beyond these, and the Nsiethawus, or Killamuks, quite separate, below 45° . Dialects of the Tahkali (a branch of the Athapascas) are spoken by two tribes close to the mouth of the Columbia, and by the Umkwas, in latitude 43° .

From these circumstances Mr. Hale submits as a conjecture, that these numerous small tribes along the sea-coast are the residue of those which are supposed to have invaded Mexico. This hypothesis is altogether gratuitous, and as I believe, groundless; but whether true or erroneous, it does not explain the fact of the extraordinary number of languages found within so narrow a territory along the sea-coast, particularly between the latitudes 49° and 32° .

Mr. Hale obtained also a vocabulary of the Blackfeet, whose country lies on the eastern side of the Rocky Mountains. Of this no use has been made, as one more to be relied upon was transmitted by Mr. K. M'Kenzie, the active partner of the great St. Louis Fur Company, and who has resided more than twenty years at the mouth of the Yellow Stone River. Mr. Hale's observations are, however, inserted, as they corroborate the information obtained from other quarters.

The Satsikaa or Blackfeet, is a confederacy of five tribes, principally on the river Saskatchewan, viz., the Satsikaa, the Kena or Blood Indians, and Pickan or Pagan Indians, all three speaking the same language; the Atsina or Arrapahaes, or Gros Ventres, or erroneously Minetares of the Prairie, and the Sarsi or Sussees, which last speak a dialect of the Athapascan (Tahkali). The Atsina or Fall Indians must not be confounded with the Gros Ventres of the Missouri or Minetares, who speak the Crow or Upsaroka language.

The Blackfeet were reckoned at thirty thousand souls, and were the terror of all the western Indians. In 1636 the small-pox carried off two-thirds of the whole.

ADDITIONAL ETHNOGRAPHIC NOTES,

EXTRACTED FROM CAPTAIN WILKES'S NARRATIVE OF THE
EXPLORING EXPEDITION.

Port Discovery.—The Indians in this vicinity are of the Clalam tribe, a most filthy race, with flattened heads; live principally on fish, camass-root, and potatoes; manufacture blankets from dogs' hair. The color of the younger natives is almost white, and some of the women would with difficulty be distinguished in color from those of European race. Their canoes, made from a single trunk, have an elegant shape, which is preserved, and they are mended in a very ingenious manner.

Wallawalla and Cayuse.—The great aim of the missionaries has been to teach them that they may obtain a sufficient quantity of food by cultivating the ground. Many families of Indians have patches of wheat, corn, and potatoes, and they have learned the necessity of irrigating their crops.

Kooskooskee River.—The farms of the Indians are from five to twelve acres each, all fenced in, and on these the Indians cultivate wheat, corn, potatoes, pumpkins, &c. One of them in the year 1840 raised four hundred bushels of potatoes and forty-five bushels of wheat. With part of the potatoes he bought (from the mountain Indians) enough buffalo meat to serve him through the winter.

Lapwai, latitude $46\frac{1}{4}^{\circ}$ —*Nez Percés.*—The Indians subsist for the most part upon fish, roots, and berries. Half of them usually make a trip to the buffalo country for three months. The missionary school has in winter about five hundred scholars. The men are industrious for Indians. The salmon fishing is conducted with much industry, and lasts from daylight till ten o'clock at night. The scalps of enemies are taken in war. The ties of marriage are very

loose, and wives are put away at pleasure; but this privilege is also allowed to the women.

From some of the officers of the Hudson's Bay Company I learned that there were many Delawares and Shawnees among the Blackfeet, and that the former, known by the name of the Shaved Heads, were much dreaded by the other tribes.

The Classet Indians, who inhabit the country around Cape Flattery, are one of the most numerous tribes on the coast that I had an opportunity of seeing, and seem the most intelligent. They are generally a stout, athletic race, and the women are much better looking than those of the other tribes; some of them had quite fair complexions and rosy cheeks. It is said that this tribe can muster one thousand warriors, and they have the reputation of being treacherous and warlike.

The Chinooks and Killamuks are said to entertain the idea of a future state. Each Indian has his *Tamanus* or spirit, which is selected at a very early age, and is generally the first object they see, in going out into the woods, that has animal life. They believe that their departed relatives have a knowledge of what is going on among the living: they speak of the dead walking at night, when they are supposed to awake and get up to search for food. Formerly slaves were often killed at a chief's funeral, in order to bury them with their masters. *Ikaui* is the name of their most powerful god: to him they ascribe the creation of all things. A mountain is called after him, from its being supposed that he was there turned into stone. The god who made the Columbia River and all the fish in it, they call *Italupus*. He taught their ancestors how to procure fire, make nets, and catch fish; and he is supposed to nourish the salmon, and cause them to be abundant during the whole summer.

I satisfied myself that the accounts given of the depopulation of this country are not exaggerated. The ague and fever have committed frightful ravages, not so much perhaps

from the violence of the disease as from the manner in which the Indians treat it. The population is therefore much less than I expected to find it. The old territory may be considered as containing about twenty thousand Indians; and this I am satisfied is rather above than under the truth.

PHILOLOGY.

THE pronunciation of the tribes north of the Columbia, Tahkali, Selish, Chinook, all the north-west coast, and including also the Jakon, is very harsh and guttural. The *x* is deeper than the Spanish *j*. The *g* is extraordinary; similar to the Peruvian *cc castanualas*. *Txl*, another guttural combination. These languages are also indistinct. In the Chinook and others the same element apparently sounds now *v*, now *b*, now *m*: the *n* and *d* are in several undistinguishable.

The southern division, Sahaptin, Shoshonee, Kalapuya, Saste, Tlamets, and Californians, are soft and harmonious: gutturals in two or three. In the others, in lieu of gutturals are found the labial *f*, the liquid *r*, and the nasal *ang*; all which are wanted in the former. The Shoshonee and Kalapuya, though soft, are nasal and indistinct.

In their grammatical characteristics, so far as these were determined, the languages of Oregon belong to the same class as the other aboriginal idioms of America. An exuberance of inflections, and a great aptitude for composition, is every where apparent. Many of the forms are precisely the same as those which occur in the languages of the eastern and southern tribes of our continent. The system of "transitions," or, in other words, the principle of expressing the pronouns, both of the subject and the object, by an inflection of the verb, is followed by all. In like manner, those modifications of an idea which in other languages are

expressed by separate words, are in these denoted by affixes and inflections. The facility with which any other part of speech may be transformed to a verb is no less remarkable.

The distinction made in some of the eastern tongues between the names of animate and inanimate objects, has not been found to exist in the Oregon languages. The missionaries had not met with it in any instance.

The dual of the pronoun is found in the Tsinuk and Waiilatpu, but not in the Sahaptin, Selish, or Kalapuya. The double plural of the first person (including and excluding the person addressed) is also found in the Tsinuk. In the Sahaptin it occurs, not in the pronoun itself, but in a very singular class of words, termed by the missionaries "declinable conjunctions,"—words which do the office of conjunctions, but only in connexion with verbs, and are varied for number and person.

The plural is formed, in many of these languages, by a repetition of the first syllable, sometimes with a slight change of the vowel. In most the adjective has generally a plural, formed like that of the substantive, but sometimes very irregular.

1. *Tahkali Umkwa.* (A to C.)

The vocabulary of the Tahkali, furnished by Mr. A. Anderson, of the Hudson's Bay Company, may be relied upon: a few words have been added from Harmon. Those of the Tlatscani and of the Umkwas were obtained from individuals of those tribes.

2. *Kiunaha.* (D.)

The vocabulary, obtained from a Cree Indian, is not fully relied on.

3. *Tsihaili-Selish.* (E to L.)

The vocabularies were generally obtained from Natives; the Selish, Skitsuish, and Piskwas from the missionaries

Walker and Eels, near Spokane River. Three dialects have been noted in the Selish: the Kulespen, on the river and lake of that name (called Ponderays); that of the Flatheads and Spokane; that of the Okinakain and other tribes on the Columbia. Three dialects also of the Tshailish (*f, g, h*), the last not far south of Fuca's Straits.

More attention has been given to the grammar of this family of languages than to any other, which has exhibited their affinities in a clearer light. This appears from the pronominal affixes in some of the most dissimilar idioms of the family.

<i>Sauksoop.</i>	<i>Selish.</i>	
tahitukh	tsitukh	house
ntahitukh	intstakh	my house
antahitukh*	antstakh*	thy house
tahitukhs	tsitukhs	his house
kukhtstakhs	kaestitukhs	our house
tahitukhamp	tsitukhamp	your house
tahitukhs	tsitukhs	their house
<i>Tshailish.</i>	<i>Neistakwus.</i>	
khaeh	tsenawen	house
tsankhaeh	tsanenawen	my house
takhaeh	tsinenawen	thy house
tekhahs	tsenenawenas	his house
tekhahsthitkhl	tsenenawensthitkhl	our house
tekhahsilap	tsenenawenstlap	your house
tekhahs	tsenenawenas	their house

It is evident that the *t* which commences the word in the last two is not an integral part of the pronoun; it may therefore be omitted in the comparison. The affixes will then be as follows:

<i>Sauksoop.</i>	<i>Selish.</i>	<i>Tshailish.</i>	<i>Neistakwus.</i>	
n—	in—	ns—	su	my
an (or a)	an (or a)	n—	i—	thy
—s	—s	—s	—us	his
kukh—	kne—	—sthitkhl	—sthitkhl	our
—amp	—amp	—ilap	—ilap	your
—s	—s	—s	—us	their

* The *an* becomes *s* before a consonant; as *astitakhsen*, thy canoe.

The Nsietshawus differs most from the general type of the family. It rejects all labial articulations. Sometimes it substitutes other words; but frequently it supplies *m* or *b*, by *w*, and that of *p* by *k*, as in the following examples:

<i>Tsikhailish, Skwale, &c.</i>	<i>Nsietshawus.</i>	
naman	nawan	son
mos	tkhlawos	face
makhseen	wakhsan	nose
pantkhiekam	hantkhlatbewas	spring
pansotatshi	hansotatshi	winter
tumakh	tawekh	earth
mutamis	tawutami	snake
nibatkh	uniwatkhl	we
panutaba	tkhla-hantaba	ten

The following are the most important grammatical peculiarities of the Selish tongue:

1. There are various modes of forming the plural. That which may be termed the regular method, is by prefixing the syllable *utkhl*, or as it is sometimes pronounced, *wutkhl*; as *katskhkis*, brother, pl. *utkhlkatskhkis*; *nokhonokhus*, wife, pl. *utkhlnokhonokhus*. Another common mode, which has been already mentioned, is by the duplication of the first part of the word, with sometimes a change of the vowel: as *wakhtult*, infant, pl. *wakhwakhtult*; *stumkaalt*, daughter, pl. *stumtumkaalt*; *stikhklam*, canoe, pl. *stikhklitikhklam*. Sometimes the plural is formed apparently after this principle, but in a very irregular fashion; as *shautum*, girl, pl. *shaushutum*; *skikwuglostan*, eye, pl. *skikwutkhikwuglostan*; *tetoit*, boy, pl. *titoit*. In some cases the plural is a peculiar word, entirely different from the singular; as *sumaam*, woman, pl. *petkhlpitkhikwi*, probably derived from *petkhli*, the word for woman in Kitunakha; but *sumsumaam*, is sometimes used. Some nouns have a double plural, as *ilumikhom*, chief, pl. *utkhlilumikhom*. All these variations must, of course, be learned by practice, as they depend upon no general principles.

2. The plurals of adjectives are formed in the same way

as those of nouns; as *iaiat*, strong, pl. *utkhliaiat*; *khaest*, good, pl. *khushkhaest*; *taiaa*, bad, pl. *titaiaa*. But there are several which have the plural entirely different from the singular; as *kwutunt*, great, pl. *piistkhlet*; *kukwaioma*, small, pl. *tsitsimet*.

3. A diminutive of some words is formed in *alt*; as *skokosaa*, boy or son, *skokosaalt*, little boy; *stumtshaa*, daughter, *stumtshaalt*, little daughter. *Shautum*, girl, has *sheshutum* for its diminutive.

No cases have been distinguished in the language.

4. The personal pronouns are,

<i>koiaa</i>	I	<i>kaenpila</i>	we
<i>anuwi</i> or <i>onoi</i>	thou	<i>npilapetump</i>	ye
<i>tsunittkhlu</i>	he	<i>tsunittkhlu</i>	they

Neither the dual nor the exclusive plural has been found to exist in the language. To express "I and thou," a speaker would say *kaenanuwi*, lit. we-thou. So "I and John" would be *kaen-John*, we-John. *Kae* or *kaen* is an abbreviated form of the first person plural, used as a prefix.

5. The possessive affixes have been already given. The following examples will show the manner in which they are joined with nouns. It will be observed that the *n* of the first and second persons is dropped before an *s*:

<i>lusu</i> or <i>lusu</i> , father	pl. <i>lusu</i> , fathers.
<i>inlusu</i> , my father	<i>inlusu</i> , my fathers
<i>anlusu</i> , thy father	<i>anlusu</i> , thy fathers
<i>lusu</i> , his father	<i>lusu</i> , his fathers
<i>kaelusu</i> , our father	<i>kaelusu</i> , our fathers
<i>lusuump</i> , your father	<i>lusuump</i> , your fathers
<i>lusuus</i> , their father	<i>lusuus</i> , their fathers
<i>stikhlam</i> , canoe	pl. <i>stikhlitikhlam</i> , canoes
<i>istikhlam</i> , my canoe	<i>istikhlitikhlam</i> , my canoes
<i>astikhlam</i> , thy canoe	<i>astikhlitikhlam</i> , thy canoes
<i>stikhlamu</i> , his canoe	<i>stikhlitikhlamu</i> , his canoes
<i>kaestikhlam</i> , our canoe	<i>kaestikhlitikhlam</i> , our canoes
<i>stikhlum</i> (irreg.), your canoe	<i>stikhlitikhlum</i> , your canoes
<i>stikhlamu</i> , their canoe	<i>stikhlitikhlamu</i> , their canoes

The third person plural, it will be seen, differs from the third person singular, not in the affix, but in the duplication of the vowel of the substantive. This peculiarity runs through the whole language, and will be observed in the conjugation of the verb.

When *utkhl* or *wutkhl* is used to form the plural of a word, it is prefixed to these pronouns: as *katskki*, brother, *inkatskki*, my brother, *utkhlinkatskki*, my brothers; *nokhonokh*, wife, *utkhkkaenokhonokh*, our wives.

6. *Iaa* signifies this; *shaii* (or *shai*), *itsi*, and *itkhlu*, that; according to the distance of the object to which they refer. *Shaii* may have the tense signs *u* (or *o*) and *mu* before it; as, in answer to the question, who did it? a native would say, *u-shaii*, that man did; who will go? Ans. *mu-shaii*, that one will.

Shuet is the interrogative who? in the plural it makes *shuushuet*? *Stem* signifies what?

7. The exact number of tenses and modes in Selish is not yet determined. Past time is expressed by prefixing *u* (or *o*) and *tkhlam*: the former having a general signification, the latter referring to an action as just completed. There are also two future signs, *m* (or *mu*) and *nam*, the first expressing simple futurity, and the latter apparently having a signification of will or intention. All the tenses have two forms; the one indefinite, as I sleep, I slept; the other definite, as I am sleeping, I was sleeping, &c. This form is made by prefixing *ats* or *ets* to the verb, and suffixing *ish* or *is*: as *aintsut*, he laughs, *atsaintsutish*, he is laughing; *ukinaintsut*, I laughed, *ukiatsaintsutish*, I was laughing.

By prefixing *aks* or *uks* to a verb with *ish* suffixed, a form is obtained signifying wish or desire: as *iiikhlin*, he eats; *uksiikhlinish*, he wants to eat.

Saits prefixed gives the signification of ought or should; as *tshetshaupelam*; to pray for, *kaetshetshaupelam*, we pray for him; *kaesaitstshetshaupelam*, we ought to pray for him.

The negative form is made by prefixing *ta* or *tam* to the verb; the interrogative by prefixing *kha*.

The following paradigm shows some of the variations of an intransitive verb:

Indefinite Form.

Definite Form.

PRESENT.

kin-iitah, I sleep
 kwu-iitah, thou sleepest
 iitah, he sleeps
 kae-iitah, we sleep
 pu-iitah, ye sleep
 iitah (iitah), they sleep

ki-atsiitahish, I am sleeping
 ku-atsiitahish, thou art sleeping
 atsiitahish, he is sleeping
 kae-atsiitahish, we are sleeping
 pu-atsiitahish, ye are sleeping
 atsiitahish, they are sleeping

PRETERITE.

u-kin-iitah, I slept
 u-kwu-iitah, thou didst sleep
 u-iitah, he slept, &c.

u-ki-atsiitahish, I was sleeping
 u-ku-atsiitahish, thou wast sleeping
 u-atsiitahish, he was sleeping, &c.

PERFECT.

tkhlam-kin-iitah, I have slept

tkhlam-ki-atsiitahish, I have been sleeping

FIRST FUTURE.

mkiniitah, I shall sleep

mkiatsiitahish, I shall be sleeping

SECOND FUTURE.

namkiniitah, I want to sleep

namkiatsiitahish, I will be sleeping

Optative.

kiskusiitahish, I want to sleep
 kwakusiitahish, thou wishest to sleep
 uksusiitahish, he wants to sleep
 kauksiitahish, we would sleep
 pakuksiitahish, ye would sleep
 ukusiitahish, they would sleep

kinetakusiitahish, I am wanting to sleep
 kwetakusiitahish, thou art wanting to sleep
 etakusiitahish, he is wanting to sleep
 kaetakusiitahish, we are wanting to sleep
 puetakusiitahish, ye are wanting to sleep
 etakusiitahish, they are wanting to sleep

Optative Past.

u-kiatsiitahish, I did want to sleep, &c.

Deontical.

kiesiitahish, I ought to sleep
 kwusmiitahish, thou oughtest, &c. &c.

There is still another form in *suaus*, signifying, to go away to do anything; as,

kisuausiitshish, I am going away to sleep
 kwusuausiitshish, thou art going away, &c.
 ukisuausiitshish, I went away, &c.
 namkisuausiitshish, I will go, &c.

9. The reflective form is denoted by the termination *tsut*, as in *tapentsut*, to kill one's self :

Sing. kintapentsut, I kill myself	Plur. kaetapentsut, we kill ourselves
kwutpentsut, thou killest thyself	putapentsut, ye kill yourselves
tapentsut, he kills himself	tasapentsut, they kill themselves

This form receives the same affixes for mood and tense as the simple verb.

10. The reciprocal form terminates in *wakhu* ; as, from *polistum*, to kill,

kaepulistuwakha, we kill one another
 pupulistuwakhu, ye kill one another
 pulistuwakhu, they kill one another

11. A form signifying to do anything for or concerning another, is made by the addition of *pela* or *pele* to the verb ; as,

tehetshaupelam, to pray for
 kuektahetshaupelam, I will (or would) pray for thee
 kotahetshaupelantekhu, thou prayest for me
 hinkpelam, to bear witness against, accuse
 kaekiakpelentum, we accuse him

12. The following is the present tense of a transitive verb varied through all its transitions :

Uitshin or *Witshin*, to see

First Transition.

uitshintsin, I see thee	uitkitkhlmun (or uikatkhlamen), I see you
uitshin, I see him	uitshin (or uitsin), I see them

Second Transition.

kowitshintukh, thou seest me	kaewitshitkhlip, thou seest us
uitshintakh, thou seest him	uitshintakh, thou seest them

Third Transition.

kowitshis, he sees me	kaewitshitkhlis, he sees us
uitshitumus, he sees thee	
uitshis, he sees him	uitshis, he sees them

Fourth Transition.

nitshinst, we see thee nitshitkhlamut, we see you
 kaewitshintum, we see him kaewitshintum, we see them.

Fifth Transition.

kotsuiahintukh, ye see me kaetsuitcikhlp, ye see us, &c.

Sixth Transition.

kotsuit ahintam, they see me kacsuit shitkhlis, they see us

Reciprocal Form.

kaeutshitawakhu, we see one another
 putshishitawakhu, ye see one another
 utahitawakhu, they see one another

Verbs, like nouns, sometimes have a plural different from the singular; *tashilish*, to stand, pl. *tupip*.

13. The imperative termination is *ish*, in the singular, *wi* in the plural; *sustish*, drink thou, *sustiwi*, drink ye.

14. Some particles in common use, the precise meaning of which it is difficult to define: the particle *tkhlu*, that, is used as a kind of article, prefixed to substantives, adjectives, and nouns proper; *tkhluluaus tkhlu Tsan*, the father of the John.

Eptkhl, or *eps*, has possessive signification; *eptkhl nintshamil*, having a knife; *eps shkailui*, having a husband. Joined with the pronominal prefixes, it changes them to possessive pronouns; *paipitkhl* (for *poeptkhl*) *luluau*, your fathers.

In or *en* signifies to, at, in. Prefixed to pronouns (perhaps to nouns) it supplies the dative case.

Ses expresses present and continued existence; *tiipais*, it rains; *spistsetkhlt u tiipais*, it rained yesterday; *spistsetkhlt u-ses-tiipais*, it rained yesterday and is still raining.

15. A noun, pronoun, or adverb, which commences a sentence, frequently has *t* or *tu* prefixed for emphasis. Mary caused him to laugh: *tmeri* (for *meri*) *ukolintum u aintsutish*. Who killed him? *tsuet* (for *suet*) *opolistum*?

16. Almost any word may become a verb; *khaest*,

good; *khaest*, he is good; *kinkhaest*, I am good; *kwukhaest*, thou art good. From *shaii*, that, so, is derived *tashaiish*, it is not so. From *eselekhu*, two houses, *kineselekhu*, I have two houses. A termination in *alisish* signifies desire or want. From *nokhonokh*, a wife, *inokhonokhwalisish*, to want a wife.

Derivatives.—From *iitsh*, to sleep, *siitsum*, a blanket. From *sumankhu*, tobacco, *sumankhutun*, pipe. From *sawithkikhwu*, water, *suawilkhl*, a fish.

17. The composition or agglutination of one or two syllables, taken from different words to form a new term, is common amongst the Selish. From *pokhpokhot*, old, and *tshesus*, ugly, is made *poiuis*, ugly from age. From *sits*, new, and *suiatkhlekhu*, house, is made *sitslekhu*, new house. From *kwutunt*, great, and *spooos*, heart, is derived *kutespooos*, a warrior. From *sintshiikhlsaskakha*, a horse, and *lkhlo-tkhloosum*, to look for any thing, is formed the verb *tkhlsakakha*, to look for horses, which is regularly varied, as *kakstkhlsakakhatkhlip*, we mean to look for our horses, *mukinuaustkhlakha*, I shall go to look for my horse.

4. Sahaptin Family.

Vocabularies principally obtained from Dr. M. Whittemore, American missionary at Waiilatpu: the grammatical principles chiefly taken from the missionary A. B. Smith, on Kooskooski River.

1. The number of letters necessarily used to express the sounds of this language is fourteen—five vowels and nine consonants. Seven other consonants are occasionally employed in foreign words, introduced by the missionaries in their translations.

2. The following is the arrangement of the alphabet:

A	pronounced	as	a	in	father
E	"	"	a	in	hate
I	"	"	i	in	machine
O	"	"	o	in	note
U	"	"	oo	in	moon

H, k, l, m, n, p, s, t, w, are pronounced as in English. B, d, f, g, r, v, z, are used only in words of foreign origin. (*S* and *sh*, also *l* and *n*, often confounded.) Language clear, smooth, sonorous.

3. The vowels have sometimes other sounds besides those given above. *A* is used with the most latitude, and represents also the sound of *a* in *fall*, (*ā*), of *a* in *what*, (*ǎ*) and *u* in *hut* (*u*). *E* has also the sound of *e* in *met*; *i* that of *i* in *pin*, and of *y* in *you*.

4. The most common diphthongs are *ai*, pronounced like *i* in *pine*, *au*, like *ou* in *south*, and *iu*, like *ew* in *new*.

7, 8. *N* and *l* are interchangeable. Women and children use *l* instead of *n*; *h* becomes *k* before a vowel; *k* becomes *h* before *n*.

Formation of Words.

9. The roots of words consist of one, two, or three syllables. To these radical forms syllables may be prefixed and suffixed to almost any extent, varying the signification and lengthening the word to nine or twelve syllables. The various circumstances or modes of action are expressed in that way, so as to bring them into the verb itself and to make but one word. For example, the word *hi-shap-tau-tu-ah-wih-nan-kau-na-ni-ma* is thus compounded. *Hi* is the prefix of the third person singular number; *tau* has reference to any thing done in the night; *tuala* to an action performed in the rain. These two are never used alone, and are not derived, so far as known, from any verbal root. *Wihnan* is from the simple verb *wihnasa*, to travel on foot. The verbal noun, which is the simplest form of the root, is *wihna*. The last *n* seems to be added for the sake of euphony. *Kau* is from the verb *kokauna*, root *kokaun*, to pass by. *Na* is the suffix of the indicative mode, aorist tense, direction from the speaker. The whole word signifies "he travelled by in a rainy night." *Shap* and *nima*:

the first gives a causative signification ; the second changes the direction towards the speaker.

11. Orthography, same in some words of different signification which differ in sound : owing to defective missionary alphabet.

12. Few generic, numerous specific terms.

Parts of Speech.

13. Nouns adjective, pronouns, verbs, declinable ; adverbs, conjunctions (generally) indeclinable. One conjunction declinable.

14. No prepositions proper ; supplied by suffixes, which may be termed "cases."

Nouns.

15. Nouns varied for numbers and cases. A vocative in names of relationship : a younger brother, *askap* ; voc. when addressing him, *aska*. But sometimes a new word substituted : *pisht*, a father, voc. *tata*, when son addresses him.

16, 17, 18. Two numbers, singular and plural. Plural usually formed by duplication of first syllable : *pitin*, girl, pl. *pipitin*. When word begins with vowel, this sometimes alone doubled : *atwai*, an old woman, pl. *aatawai*. In names of relationship, plural formed by suffixing *ma* : *pika*, mother, pl. *pikama*. *P* final of singular dropped : *askap*, *askama*.

19. Gender of sexes distinguished often by distinct names : *haswai*, boy, *pitin*, girl ; *wawokia*, male elk, *taship*, female elk. When no distinct names, the words *hama*, male, *aiat*, female, are used.

20. Nouns declined by adding a suffix, sometimes changing or dropping the last letter of the nominative. But those suffixes are not limited to those modifications which we call cases, and are used instead of not only our prepositions, but also of various other relations.

21. The noun *inít*, a house, is thus declined :

Nom.	<i>inít</i> , house
Gen.	<i>ininn</i> , of a house
Acc.	<i>inina</i> , house.
1st Dat.	<i>inítph</i> , to or for a house
2d Dat.	<i>inítpa</i> , in, on, or upon a house
1st Abl.	<i>inítki</i> , with a house (instrument)
2d Abl.	<i>inítphinib</i> , from a house
3d Abl.	<i>inítain</i> , for the purpose of a house

(The pronunciation does not show clearly that there is a different form of this word for the plural; it would properly be *iinít*.)

There are other suffixes which may be considered adjective or adverbial, as

<i>inítaah</i> , the place of a house
<i>inítpama</i> , belonging to a house
<i>inínót</i> , without (or destitute of) a house
<i>inítin</i> , having a house
<i>inítih</i> , like a house
<i>inítáim</i> , only a house

22. Nouns ending in *a*, *i*, *o*, and *u*, make the genitive by adding *nm*; as *hama*, *hamannm*; *hatsu*, *hatsunm*. Those ending in *ai*, *k*, *m*, and *s*, by adding *nim*; as *tahai*, *tahainim*; *witk*, *witihinm* (see §8); *shikam*, *shikamnim*. Those ending in *l* and *n*, except it be in *in*, by adding *m*; as *haswal*, *haswalm*; *titokan*, *titokanm*. Those ending in *in* change the *n* to *shnim*; as *himin*, *himishnim*. Those in *p* add *im*; as *piap*, *piapim*. Those in *at* add *um*, as *miohat*, *miohatum*. Those in *it* change the *t* to *nm*; as *iskit*, *iskinm*. Those in *kt* drop the *t* and take *nm*, with a vowel preceding; as *taulikt*, *taulikinm*; *nukt*, *nukunm*.

23. The accusative is formed from the genitive by dropping the *m*, (and *i* when it precedes it,) and adding *a*; or, if the *m* is not preceded by *n*, by adding *na*; as *iskinm*, *iskina*; *witihinm*, *witihna*; *miohatum*, *miohatna*.

The Adjective.

24. The adjective is declined in the same way as the noun; as

Sing.		Plur.
Nom.	tahs (talts) good	titahs
Gen.	tahsim	titahsim
Acc.	tahsa	titahsa
1st Dat.	tahsph	titahsph
2d Dat.	tahspa	titahspa
1st Abl.	tahaki	titahaki
2d Abl.	tahapkinih	titahapkinih
3d Abl.	tahain	titahain

25. The degrees of comparison are thus expressed :

<i>Positive,</i>	tahs, good
<i>Comparative,</i>	tahs kamakam, better
<i>Superlative,</i>	tahsi, best

There are other modes of expressing the superlative degree, as *tahstamaunin*, very good, &c.

26. There is also a mode of expressing any thing that is progressing towards a superlative point, which is by doubling a syllable or part of a syllable; as *lauit*, clear, plain; *lauauit*, increasingly clear.

Of Pronouns.

27. Pronouns may be divided into personal, adjective, and interrogative. The personal pronouns are *in*, I, *im*, thou; *ipi*, he or she; *nun*, we; *ima*, ye; *imma*, they.

[The pronouns of the second and third persons plural are distinguished in writing for the sake of perspicuity; but in pronunciation no difference whatsoever can be discerned between them. Both are sounded *imā*, with the accent on the last syllable.]

28. Pronouns are declined in the same way as nouns and adjectives. *In* makes in the genitive *ixim*, acc. *iaa*; *im* makes *imim*, *imana*; *ipi*, *ipnim*, *ipna*; *nun*, *numim*

nuna; ina, inam, imuna; inna, immam, immuna. (These genitives become possessive pronouns.)

29. The personal pronouns are variously compounded, or receive various suffixes, which change their signification; as,

innik, I myself	innih, thou thyself	ipinlh, he himself
inaiwat, I alone	inaiwat, thou alone	ipaiwat, he alone
inka, I also	inka, ipinka	
inku, inku, ipinku		

The termination *ku* is used to signify assent. It is suffixed not only to pronouns, but to verbs, and often to other words in giving an affirmative answer.

inkos, I first	inkos, ipinkos
innihnakos, I myself first	innihnakos, &c.
inhwai, I instead of another	inhwai; ipinhwai
intit, I the same	intit, ipintit

All these are declined like the simple forms.

30. Such genitive is compounded with nouns and forms but one word; as, *iniatwa*, instead of *inim wiatwa*, my companion.

31. Demonstrative; *ki*, this; *ioh*, that; plural *kima*, *iokoma*; genitive *kinm*, *kinimam*; accusative, *kinia*, *kini-mana*; *ioh*, gen. *kunim*, pl. *kunimam*; accus. *kunia*, *kuni-mana*.

33. The suffix *in* annexed to these two pronouns means, with, in company with this or that. But though the nominative be singular, the verb connected with it is always plural; as *kuniim kushish*, with that one *we* go, meaning, I am going with that one. Said suffix *in* often attached to proper and common names.

34. Three interrogative pronouns, viz.; *ishi*, who? relates to persons only; *itu*, what? relating only to things; *ma*, which? used of both persons and things. How declined. *Ma* both singular and plural; *ishi*, *ishinm*, *ishina*; pl. *ishima*, *ishimam*, *ishimana*.

35. Relative pronouns supplied by the union of the par-

ticle *kah* with the personal pronoun. If the pronoun relates to person, it follows the particle; if to things, the pronoun precedes.

The same particle *kah* when connected with the verb signifies, in order that, that I may; it is also used in an imperative sense; *kah kush*, let me go.

Declinable Conjunctions.

36. Some of these have an intensive force, others serve as connectives between sentences.

37. They are declined according to number and persons:

<i>Singular.</i>	<i>Plural.</i>
1st person, <i>kah</i> , that	<i>kah</i> or <i>kanm</i>
2d " <i>kam</i>	<i>kapam</i>
3d " <i>ka</i>	<i>ka</i>

Kuh, if, perhaps (used with a supposition).

<i>Singular.</i>	<i>Plural.</i>
1st person, <i>kuh</i>	<i>kuh</i> or <i>kunam</i>
2d " <i>kum</i>	<i>kupam</i>
3d " <i>ku</i>	<i>ku</i>

38. In the first person plural of both these words there are two forms, which are used under different circumstances. When the speaker, his associates, and the person or persons addressed are all included, the latter form, *kanm* or *kunam*, is used. If the speaker and his associates only are included, and not those addressed, the other form is used, *kah* or *kuh*.

39. When this class of words is used in connexion with an active transitive verb, which has for its object a second person singular or plural, there is still another variation; as,

<i>Sing. or Plur.</i>	
1st person, <i>kumah</i>	} (Object. 2d pers. sing.)
3d " <i>kum</i>	

1st person, <i>kupamah</i>	} (Object. 3d pers. plur.)
3d " <i>kupam</i>	

Other words of this class are *atah, kainah, iakah, tokah,* &c., all varied in the same manner.

The Verb.

40. In the verb consists emphatically the power of the Sahaptin language. The various particles and auxiliaries which help to form other languages, and render the variations of the verb more simple and concise, are, to a great extent, wanting in this. Hence the variations of the verb are extremely numerous, and they may be increased to an almost indefinite extent by composition.

41. Verbs may be divided into three classes—neuter, active intransitive, and active transitive.

42. There are two neuter verbs, *wash*, to be, signifying simple existence, and *witsasha*, to become. The former is wanting in all the future tenses, or, if they exist, they are the same with those of *witsasha*, and formed from it.

43. The active intransitive verbs are those which do not admit an accusative after them. They are similar in their variations to the neuter verbs.

44. Both these classes present a striking peculiarity in one respect. There is one form of the verb to agree with the nominative, and another to agree with the genitive, when possession is implied. In the first and second persons, however, the form is the same in each; thus,

With the Nominative.

Sing.	Plur.
1st person, in wash	nan washih
2d " im awash	ima athwashih
3d " ipi hiwash	imma hiiwashih

With the Genitive.

Sing.	Plur.
1st person, inim wash	nunim washih
2d " imim awash	imam athwashih
3d " ipnim ush	imnam usshih

These forms of the verb are so definite that often it is not necessary to use the pronoun; and in conversation it is frequently omitted. For instance, if I ask whose a thing is which belongs to the people, the answer will be "*awshih*," the plural form of the verb implying possession (meaning "it is theirs").

45. The active intransitive has one form to agree with the nominative, and another to agree with the genitive, the same as the neuter. For instance, a Sahaptin will say, *ipnim miahs atnuhna*, instead of *ipnim miahs hitnuhna*, his child died.

46. The active transitive verb presents a much more striking peculiarity. This is always capable of taking an accusative after it, but perhaps as frequently takes a nominative after it as its object as an accusative. When a person performs an action for himself, the object of the verb is usually in the nominative, and is preceded by a nominative expressed or implied, in all cases.* The form of the verb, too, is different from that when followed by an accusative. If one speaks of an action which is performed, without any intimation for whom it is performed, the verb takes an accusative after it; in which case, if it be in the third person, it takes a genitive before it instead of a nominative. When the verb takes an accusative after it, the verb is varied throughout its whole declension, according to the number and person of the accusative. Hence there are six variations of the verb, according to the number and person of its object. [These variations are what are now termed by grammarians *transitions*—a word first employed by the Spanish missionaries, and introduced into general use by Mr. Duponceau.]

47. If an action is performed for another, the verb, instead of being varied in declension to denote it, assumes a

* This sentence is rather obscure, and it is to be regretted that no example is given in the grammar to illustrate the peculiarity in question.

new ground-form, or is thrown into another conjugation, whose declension is very similar to that of the simple form, and equally full. This form governs two cases—the accusative of a person and nominative of a thing. *Hakisa* is the simple form, and *hanansha*, or *hahnaisa*, according to the dialect, is the form signifying the performance of the action for another.

To this may be added two other conjugations derived immediately from the preceding—the one signifying the going to perform an action at a distance, and the other the going to perform an action for another; as *haktasa*, to go to see any thing at a distance, and *hahnantasa* (or *hahnaitasa*), to go to see for another.

These are all declined, in general, like the simple form, with some few differences in some of the modes and tenses.

48. As yet no passive form of the verb has been discovered, and we are led to conclude that it does not exist. The verbal adjective or participle ending in *in*, which is frequently used with the verb of existence, has rather the signification of a mere adjective, or of the present participle in English, than of the past participle which forms the passive in our language. It may, however, in some cases, have a passive signification. An impersonal form of expression is also used, similar to the English "they say," for "it is said."

49. A large number of verbs are contracted after the manner of the Greek contracts. This contraction, however, occurs only in the third person singular and plural, throughout all the moods and tenses; as *hiutsasha*, for *hiuitsasha*.

50. Verbs are varied according to location, direction, mode, tense, number, and person.

51. As regards location, when the action originates from the place where the speaker is, the usual form of the verb is used; but when the action originates from a place at a distance from the speaker, a different form is used; as *hak-na*, aorist tense, common form; *hahnakikika*, the same

tense, when the action originates at a distance. In the form signifying direction towards the speaker, if no intermediate point or place is spoken of in the progress of the action, the common form is used; but when the action in progress is spoken of as coming from that intermediate place, the other form is used.

52. *Direction*.—Every verb is varied according as the action or affection, or even being, have a direction towards or from the speaker; as *hakisa*, when the action is *from* the speaker, and *haksam* when it is *towards*; and in the form signifying an action originating at a distance, *haksanki*, from, and *haksankikim*, towards. It is difficult to conceive of direction in the verb expressing simple existence; but here the two forms are in common use; as *hiwash*, from, and *hiwam*, towards.

53. The *modes* are more numerous than usual in other languages. There are at least six distinct modes, and perhaps one more ought to be reckoned. They are as follows:

(1.) *Indicative*, having the same signification as in English.

(2.) *Usitative*, signifying an action that is customary or habitual; as in *tseknakana*, I used to say.

(3.) *Suppositive*, implying a condition or doubt.

(4.) *Subjunctive*, signifying an action which depends on a previous supposition; as *ka kina hiwatah, kawa in aksanah*, if he were here, then I should see him.

(5.) *Imperative*, as in other languages. When prohibition is expressed, the future form of the verb is used instead of the imperative, with the negative *watmet* prefixed.

(6.) *Infinitive*, signifying the purpose for which an action is performed; as *hahnash kuma*, I have come to see.

The other form of expression, hinted at as being an additional mode, is similar in its signification to the infinitive. It follows a verb in one of the other modes in the same manner as the infinitive, and is preceded by the particle *kah* in

the sense of *that*. This form of the verb is varied according to number and person, but is not varied according to time; as *hatsu in pantam kah aliksh*, bring me some wood, that I may make a fire.

54. The tenses as well as modes are uncommonly numerous. There are no less than nine, though they are not all used in any but the indicative mode.

(1.) Present, signifying an action which is passing at the time the assertion is made; as *in timasa*, I am writing.

(2.) Perfect, denoting an action just completed; as *is hakin*, I have just seen.

(3.) Recent Past, representing an action which took place within a recent period; it may be in the early part of the same day, or within a few days; as *haksaka*, have seen.

(4.) Remote Past, denoting that the action took place at a more remote period, usually a long time ago; as *haksana*, I saw.

(5.) Aorist, or Past Indefinite, representing an action as past, without reference to the precise time; it may be recent or remote; as *hahna*.

(6.) Present Future, representing an action which is about to take place; as *haktatasha*, about to see.

(7.) Future, representing an action which will take place at any future time; as *hahna*, will see.

(8.) Recent Past Future, an action which was about to take place at a recent period; as *haktatashaka*, have been about to be seen.

(9.) Remote Past Future, an action which was about to take place at a remote period; as *haktatashana*, was about to see.

55. Each verb has usually two verbal adjectives or participles; though their properties are somewhat different from those of participles in other languages. One is affirmative and the other negative; as *hahnia*, the affirmative participle of *hakisa*, and *hahnai*, the negative.

56. There are also three verbal nouns from each verb,

having different significations; as *hakin*, having a signification similar to the Latin gerund; *hakinash*, which has reference to the object or purpose to which a thing is applied. The names given to tools or instruments, previously unknown to the people, are in this form. The other noun signifies the doer of an action; as *haniawat*, maker, from *hanisha*, to make.

57. There is also, in some cases, an adverbial form, used in connexion with other words, expressing the manner of an action; as *hakmaih hikusha*, he goes seeing.

58. In the active intransitive verb there is often a different form still. It is the simplest form of the word, the root itself, and is used in connexion with *kusha*, to go; as *taw hikush*, it has gone dry, or it has dried up, as a fountain or stream of water.

59. If conjugation is defined, as in Hebrew, as having reference to different forms of the same verb, there may be said to be many conjugations in this language. The active intransitive and the active transitive, while they differ widely in their declensions, have also different conjugations. The form terminating in *osha* or *usha*, belongs exclusively to the former, while the reflective belongs exclusively to the latter.

60. The three forms mentioned in § 47 as conjugations, are derived immediately from the ground-form *hakisa*; and each of the conjugations to be mentioned are similar to the original ground-form, inasmuch as they each have these three forms derived from them in the same manner.

61. The conjugations are as follows:

Of the Active Intransitive Class.

Hisamsa is the ground-form, which means to be angry; from this is formed,

*Hisamnosh*a, to be angry towards or at, which is active transitive, and may govern an accusative.

Of the Active Transitive Class.

Hakisa is the ground-form ; whence *pihaksih* (plu.), reciprocal, to see each other. This form also used in the singular, most frequently in the word *inisha*, to give. When those people give they always expect a return : they know of giving in no other sense.

Inaksa, reflective ; I see myself. This form is made by prefixing the personal pronouns, as :

Sing.	Plur.
1st person, <i>inaksa</i>	<i>numakaih</i>
2d " <i>imaksa</i>	<i>imamakaih</i>
3d " <i>ipnaksa</i>	<i>imamamakaih</i>

Shapaksa, causative ; to cause to see, to show.

Wiaksa, successive ; to see in succession, or one thing after another.

Takaksa, to see suddenly, or for a short time.

62. Another causative form refers to an effect produced by language. *Sukuasa*, to know ; *tasukuasa*, to cause to know by *talking* to.

63. Other prefixes attached to some verbs *hahnipawisha*, to desire to see. Also some suffixes, most of which are fragments of other verbs, and suffixed, form innumerable compounds.

64. In giving an affirmative answer, instead of using a particle, the verb, noun, or pronoun belonging to the question is repeated, only changing the termination—the terminating vowel being always *u*. To the question, *wat adutatasha* ? are you not about to go ? the affirmative answer will be, *kutatashu*. Also, *wat akaiu* ? answer, *kiuku*.

65. Almost any noun may become a verb, by change of form or adding a suffix ; *mishat*, a chief ; *ipnomiohatoksha*, he makes or conducts himself as a chief. *Himakash*, great ; *himakashwisha*, to be great.

66. Most conjugations declined as the paradigm given ; reciprocal and reflective differ in some respects.

Adverbs.

67. Not numerous, as the manner of the action is so frequently expressed by the verb itself.

68. A class of adverbs derived from verbs, and when used are connected with another verb, so as to express the manner of the action: *Minmaiñ akuma?* In what way did you come? Answer: *wihñaniñ kuma*, I came on foot: the adverb *wihñaniñ* being derived from the verb *wihñasa*, to walk (walking I came).

69. Adverbs of time and of place: *wako*, now; *wakepa*, long ago; *kina*, here; *kuna*, there, &c.

70. Interrogative adverbs always commence with the letter *m*, probably from the interrogative pronoun *ma*; as *maua?* when? *mina?* where? *mas?* how much? *mala-kam?* how many times? *mahal?* how long? *maloshus?* how many hundreds?

Conjunctions.

71. But few in number. *Wah*, and, used only to connect words, usually nouns. *Kaua*, used to connect sentences, refers also to order of events, then and then. It also receives some adjective terminations, as do also some adverbs: *kauama*, belonging to that time; *kaualit*, at that same time. Other conjunctions: *met* or *kimet*, but; *kw* or *tsakawi*, if; *inah* or *inaki*, though; *savin*, notwithstanding.

Interjections.

72. Numerous; used to express sudden emotion. *I-ia-a-iah* is an expression of despair.

Syntax.

73. The following are a few most important rules:

(1.) Adjectives agree with their nouns in number and case.

(2.) Verbs agree with their nominatives in number and person.

(3.) Neuter and active intransitive verbs, when possession is implied, take before them a genitive instead of a nominative.

(4.) Active transitive verbs, when followed by an accusative, always take a genitive before them, in the third person, instead of a nominative.

(5.) The conjugation, which signifies to perform an action for another, or in reference to another, always takes after it an accusative of a person with a nominative of a thing.

(6.) As to the relative position of words in a sentence, no very precise rules can be given. The language admits of greater latitude in transposition than the English. The form of words is so definite, that the grammatical construction is easily determined without reference to the relative position.

(7.) The adjective usually precedes the noun, and the verb is usually thrown into the latter part of the sentence, having the accusative before it. Sometimes the nominative is the last in the sentence.

Mr. Smith gives a paradigm of the simple verb *hakisa*, to see, conjugated through all the modes and tenses, as well as in the directive and locative forms. Some idea may be formed of the extent of the variations, and of the labor required in educating them, from the fact that they occupy, in his essay, no less than forty-six pages of manuscript. And it is to be recollected, that neither the six derived conjugations, nor the three forms mentioned in §47, of which they are all susceptible, are included in this paradigm.

The following paradigm of the substantive verb was written out by Mr. S. at my request, as likely to be the subject of some interest. It is in frequent use, with precisely the force of the English "to be," as is evident from the example given in another part of the grammar—*ioh kah tse-*

kaku ikuin HiwASH—that which I have said is true. In the third person, singular and plural, two forms are given, the latter of which is used with the genitive of possession. (See § 44.)

<i>Direction towards.</i>	<i>Direction from.</i>	
im a° wam	in wash	I am,
ipi hiwam	im a° wash	thou art
	ipi hiwash ; ipalm wah	he is ; it is his
	nun washih	we are
ima ath° washimam	ima ath° washih	you are
imma	imma hinahih ; immam anahih	they are ; it is theirs

RECENT PAST TENSE.

wamka	waka (pron. waka)†	I have just been
a wamka	a waka	thou hast, &c. &c.
hiwamka	hiwaka ; awaka	
washimka	washaka	
ath washimka	ath washaka	
hiwashimka	hiwashaka ; anashaka	

REMOTE PAST TENSE.

wama	waka (pron. waka)†	I was
a wama	a waka	
hiwama	hiwaka ; awaka	
washimma	washima	
ath washimma	ath washima	
hiwashimma	hiwashima ; anashima	

Locative Form (see § 51).

PRESENT TENSE.

	waki
awakam	awaki
hiwakam	hiwaki
	washinki
	ath washinki
	hiwashinki

* The particles *a* and *ath* (or *atk*), which are the signs of the second person, singular and plural, are here given separate from the verb, as in fact, instances occur where other words are introduced between them and the verb.

† These words will illustrate what has been said (§ 11) of the advisability of introducing other vowel-sounds into the alphabet.

RECENT PAST TENSE.

wakaka (pron. wakāika)
 a wakaka
 hiwakaka
 washinkaka
 ath washinkaka
 hiushinkaka

REMOTE PAST TENSE.

wakika
 a wakika
 hiwakika
 washinkika
 ath washinkika
 hiushinkika

The substantive verb is defective in the other tenses and modes, and they are supplied from the verb *witsasha*, signifying to become, which is inflected as follows :

Witsasha, to become.*Direction towards.**Direction from.*

PRESENT TENSE.

a witsasham
 hiutsasham

witsasha
 a witsasha
 hiutsasha ; autsasha
 witsashih
 ath witsashih
 hiutsashih ; auts—

I become
 thou becomest, &c.

ath witsashim
 hiutsashim

PERFECT TENSE.

witsash
 a witsash
 hiwitsash
 pawitsash
 ath pawitsash
 hipawitsash

I have become, or been

witsashamka
 a witsashamka
 hiutsashamka
 witsashimka
 ath witsashimka
 hiutsashimka

witsashaka
 awitsashaka
 hiutsashaka
 witsashaka
 ath witsashaka
 hiutsashaka

I have just become

<i>Direction towards.</i>	<i>Direction from.</i>	
		REMOTE PAST TENSE.
witashama witashinma	witashana witashina	I did become we did become
		AORIST.
witama pautama	witama pautama	I became, or was we became, or were
		FUTURE INDEFINITE.
witainkum pautainkum	witainu pautainu	I shall become, or be we shall become, or be
		PRESENT FUTURE.
witataasham witataashim	witataasha witataashih	I am about to become we are about to become
		RECENT PAST FUTURE.
witataashanka witataashinuka	witataashaka witataashuka	I was just about to become we were just about to be- come
		REMOTE PAST FUTURE.
witataashama witataashinma	witataashana witataashina	I was about to become we were about to become

Paradigm of the verb *hahnash*, to see.

PRESENT TENSE.		
<i>First Transition.</i>		
	in a hakis imana	I see thee
	in akisa ipna	I see him
	in ath hakis imuna	I see you
	in anashaks immuna	I see them
<i>Second Transition.</i>		
im a haksam ina		thou seest me
im a aksam ipna	im a akisa ipna	thou seest him
im anashaksam nuna		thou seest us
im anashaksam immuna	im a anashaks immuna	thou seest them
<i>Third Transition.</i>		
ipnim haksam ina		he sees me
ipnim a haksam imana	ipnim a hakis imana	he sees thee
ipnim paksam ipna	ipnim paka ipna	he sees him
ipnim hinasaksam nuna		he sees us
ipnim ath haksam imuna	ipnim ath hakis imuna	he sees you
ipnim hinasaksam immuna	ipnim hinasaks immuna	he sees them

Direction towards.

Direction from.

Fourth Transition.

nun a haksih imana	we see thee
nun aksih ipna	we see him
nun ath haksih imuna	we see you
nun aksih immuna	we see them

Fifth Transition.

ima ath haksim ina	ye see me
ima ath aksim ipna	ye see him
ima ath nasaksim nuna	ye see us
ima ath aksim immuna	ye see them

Sixth Transition.

immam haksim ina	they see me
immam a haksim imana	they see thee
immam aksim ipna	they see him
immam hinasaksim nuna	
na	they see us
immam ath haksim immuna	they see you
na	they see them
immam aksim immuna	

PERFECT TENSE.

in a hahnim imana	in a hakin imana	I have seen thee
in ahnim ipna	in ahakin ipna	I have seen him
in aneahnim imuna	in aneahakin immuna	I have seen them, &c.

RECENT PAST TENSE.

a haksamka	a haksaka	I have just seen thee
aksamka	aksaka	I have just seen him
aneahsakamka	aneahsakaka	I have just seen them

REMOTE PAST TENSE.

a haksama	a haksana	I did see thee
aksama	aksana	I did see him
aneahsakama	aneahsakana	I did see them

AOBINT TENSE.

a hahnima	a hahna	I saw thee
ahnima	ahahna	I saw him
aneahnima	aneahahna	I saw them

PRESENT FUTURE TENSE.

a haktataham	a haktatacha	I am about to see thee
aktataham	aktatacha	I am about to see him
aneahaktataham	aneahaktatacha	I am about to see them

*Direction towards.**Direction from.*

FUTURE TENSE.

a hahnukum	a hahnu	I shall see thee
ahnukum	ahnū	I shall see him
anashahnukum	anashahnu	I shall see them

RECENT PAST FUTURE.

a haktatahamka	a haktatahaka	I was just about to see thee
aktatahamka	aktatahaka	I was just about to see him
anashaktatahamka	anashaktatahaka	I was just about to see them

REMOTE PAST FUTURE.

a haktatahamna	a haktatahana	I was about to see thee
aktatahamna	aktatahana	I was about to see him
anashaktatahamna	anashaktatahana	I was about to see them

Locative Form.

in aksankikim ipna	in aksanki ipna	I see him (yonder ?)
ahnakikim	ahnaki	I have seen him
aksankikimka	aksankaka	I have just seen him
aksankikims	aksankika	I did see him
ahnakikikims	ahnakikika	I saw him
aktatahankikim	aktatahanki	I am about to see him

(No general Future Tense.)

aktatahankikimka	aktatahankaka	I was just about to see him
aktatahankikims	aktatahankika	I was about to see him

Usitative Mode.

in ahnakam ipna	ahnah	I am wont to see him
ahnakamka	ahnakaka	I have lately been wont to see him
ahnakama	ahnakama	I was formerly wont to see him
ahnakanukum	ahnakanu	I shall see him occasionally

Usitative Mode, Locative Form.

ahnakankikim	ahnakanki	I am wont to see him yonder
ahnakankikimka	ahnakankaka	I have lately, &c.
ahnakankikims	ahnakankika	I was formerly, &c.

Direction towards.

Direction from.

Suppositive Mode.

kuk in akinamh ipna
kum im akinamh
ku ipnim pakiammh
krah nun apakinamh
kupam ima apakinamh
ku imma paksanamh
kumak in hakinamh
kum ipna "
kupamak in "
kupam ipnim "

kak in akina hipna
akinah
pakinah
apakakinah
apakinah
paksanah
hakinah
"
"
"

If I see him
If thou seest him
if he sees him
If we see him
If ye see him
If they see him
If I see thee
if he sees thee
if I see you
if he sees you, &c. &c.

AORIST TENSE.

kuk in ahnokuka ipna

ahnoka

if I saw him

Subjunctive Mode.

kuk in aksanamh ipna
kum im aksanamh
ku ipnim paksanamh
krah nun aksanamh
kupam ima aksanamh
ku imma paksinamh

aksanah
aksanah
paksanah
aksinah
aksinah
paksinah

I might or should see him
thou mightest see him
he might see him
we might see him
ye might see him
they might see him

AORIST.

aksanokuka

aksnoka

I might have seen him

PRESENT FUTURE.

aktatahanamh

aktatahanah

I may soon see him

PAST FUTURE.

aktatahenokumka

aktatahenoka

I might have seen him

Locative Form.

aksaktanamh
aksaktanokumka
aktatahaktanamh
aktatahaktanokumka

aksaktana
aksaktanoka
aktatahaktanah
aktatahaktanoka

I might see him yonder
(Aorist)
(Present Future)
(Past Future)

Imperative Mode.

hahnim ina
hahnimth ina
nashahnim nana
nashahnimth nana
ahnim ipnim
ahnimth ipna

ahkim ipna
akith ipna

look (thou) at me
look (ye) at me
look (thou) at us
look (ye) at us
look (thou) at him
look (ye) at him

Infinitive Mode.

hahnah

to see

5. *Waiilatpu Family.*

The vocabulary *O* from Dr. Witman is correct. Some words adopted from the Sahaptins, viz. numerals and pronouns of Nez Percés. In all other respects languages perfectly distinct. Structure said to differ from Sahaptin. A dual of 2d person, *mkimish*, which does not exist in the Sahaptin.

Plural Adjectives	{	<i>yáomus</i> , great	pl. <i>yiyíma</i>
		<i>uáin</i> , good	pl. <i>sasualu</i>
		<i>luáatu</i> , bad	pl. <i>laluáatu</i>

6. *The Tshinuk Family.*

The pronunciation is indistinct. *Sh* and *s*, *k* and *g*, *d* and *t*, *m* and *b*, constantly confounded. Language extremely difficult to acquire: only one instance of a white man having learned to speak it with fluency. The consonants are, *s*, *g*, *kh*, *m* or *b*, *n*, *p*, *q*, *t*, and *w*. The Tshinuk is still more remarkable for the variety of its forms than either the Selish or the Sahaptin. In the pronouns, for example, it has not only the dual, but also, in the first person both of the dual and plural, a twofold form—one excluding and the other including the party addressed. We find, also, in one dialect (if not in all) two pronouns of the third person singular, viz., masculine and feminine—a distinction rarely made in any of the Indian tongues.

The following are the personal pronouns in the language of the upper Chinooks, or *Watlalas*:

<i>Singular.</i>	<i>Dual.</i>	<i>Plural.</i>
<i>naiki</i> , I	<i>ndaiki</i> , we two (ex.)	<i>ntahaika</i> , we (exc.)
	<i>tkhaika</i> , we two (inc.)	<i>ukhaika</i> , we (inc.)
<i>maika</i> , thou	<i>mdaika</i> , ye two	<i>mahaika</i> , ye
<i>iahkka</i> , he	<i>iahtakka</i> , they two	<i>tkhaitakka</i> , they

The possessive pronouns are, as in Selish, particles joined to the nouns. They are the same, except for the

first person singular, as the two or three first letters of the personal pronouns. With *itukuthle* or *itukwuthle*, house, use, they make.

<i>Singular.</i>	<i>Dual.</i>	<i>Plural.</i>
kakwitkhl, or kukwitkhl, [my house	ndekwitkhl	ntahakwitkhl, our house (exc.)
mekwitkhl, thy house	tkhukwitkhl	alkhakwitkhl, our house (inc.)
iakwitkhl, his house	mdakwitkhl	mahakwitkhl, your house
	lhtakwitkhl	tkhlakwitkhl, their house

The first person is sometimes expressed by *itsh*, and the second by *imi*; as *itshgitsh*, my nose, *imigitsh*, thy nose, *iagitsh*, his nose, &c.

In the same way verbs and verbal adjectives take these prefixes, to form the various inflections for number and person. Thus from *tshis*, cold, with *keakh*, which seems to be used as an auxiliary, or perhaps a substantive verb, are formed,

PRESENT.

Singular.

naika tshinukhkeakh, I am cold
 maika tshihumkeakh, thou art cold
 iakhka tshikeakh, he is cold

Dual.

ndaika tshihantkeakh	nshaike tshihuntshkeakh, we are cold (exc.)
tkhaika tshihutkeakh	alkhaika tshihutkeakh, we are cold (inc.)
mdaika tshimukeakh	mshaike tshihumkeakh, ye are cold
lhtakha tshihutkeakh	tkhlaitshka tshihutkhlkeakh, they are cold

PAST.

takwitkhl naika tshinutkeakh, yesterday I was cold
 takwitkhl nshaike tshihuntshkeakh, yesterday we were cold (exc.)
 takwitkhl alkhaika tshihutkeakh, yesterday we were cold (inc.)

(It will be seen that this tense differs from the Present merely in the insertion of a *t* before *keakh*.)

FUTURE.

atkhike naika tshihentshaka, by and bye I shall be cold
 atkhike ndaika tshihuntshaka, by and bye we two shall be cold (exc.)
 atkhike tkhaika tshihutshaka, by and bye we two shall be cold (inc.)
 atkhike mdaika tshihumshaka, by and bye ye two will be cold
 atkhike mshaike tshihumshaka, by and bye ye (pl.) will be cold
 atkhike tkhlaitshka tshihutshikhaka, by and bye they will be cold

In all the preceding words, the *ishish* may be separated and placed at the end ; as, *naika wshkhatka ishish*, I shall be cold, &c.

The transitive inflections are as distinct in this language as in the Selish, and more numerous, inasmuch as they comprise the dual, and the double plural of the first person. The following examples will suffice to show the existence of these forms :

<i>aminowagus</i> , I kill thee
<i>tahinowagus</i> , I kill him
<i>santkinowagus</i> , I kill you two
<i>sashkinowagus</i> , I kill them two
<i>wshkinowagus</i> , I kill you (pl.)
<i>stshkinowagus</i> , I kill them
<i>emshkiwagus</i> , ye kill him
<i>stshkiwagus</i> , ye kill them

The lower or proper Tahinuk seems to differ from the upper (or Watlala) rather in words than in grammatical peculiarities. In the dialect of Waikaikum, the pronouns are nearly the same as in that of Watlala. For *he*, however, was given *iakhe*, and for *she*, *wakhe*.

Of many of the nouns no plural form could be discovered. Some of the names of living beings had a plural termination in *aks* or *aksh*, but this was not universal :

<i>shhikats</i> , man (vir)	pl. <i>shhikalawaks</i>
<i>kiutan</i> , horse	<i>kiutanaksh</i>
<i>shhikamoks</i> , dog	<i>shhikamaks</i>

Some of the plurals were altogether irregular ; as,

<i>kothlelikum</i> , man (homo)	pl. <i>tlekum</i>
<i>shhikakel</i> , woman	<i>tanemafks</i>
<i>shhikakum</i> , boy	<i>tkasainaks</i>

Kalapuya.

This vocabulary was obtained from two natives of the tribe, one of whom was a youth educated by the missionaries at the Willamet station. The language is soft and

harmonious. The *g* and *kh* occur, but not very often, and the latter is frequently softened to an *h*. The other consonants are *sh* (or *s*), *f*, *j*, *k*, *l*, *m*, *n*, *ng*, *p* (or *b*), *t* or *d*, and *w*.

The Kalapuya is chiefly remarkable for the great changes which its words undergo in their grammatical variations, leaving often very little trace of the root or ground-form. This is seen, in some degree, in the noun, but more particularly in the verb, the forms of which appear to be not less numerous than in the Sahaptin.

The dual and double plural do not exist in this tongue. The personal pronouns are,

tsh, or tshii, I	soto, we
maha, or maa, thou	miti, ye
koka, or kak, he	kinuk, they

The following examples will show the possessive adjuncts, and the manner in which they are combined with the noun :

tshi ahimna, my father	soto tufam, our father
maha kaham, thy father	miti tifam, your father
kok inifam, his father	kinuk inifam, their father
tshi ahimni, my mother	soto tannim
maha kanni, thy mother	miti rinnim
kok ininnim, his mother	kinuk ininnim
tshi takwalak, my eye	soton tikwalak, our eyes
maha pukwalak, thy eye	mitin tikwalak, your eyes
kok intakwalak, his eye	kinuk inikwalak, their eyes
tshi tummai, or tannimai, my house	soto tummai, our house
maha pummai, thy house	miti tummai, your house
kok inimmal, his house	kinuk inimmal, their house

No inflection or sign to indicate plurality could be discovered either in the noun or the adjective.

The following is the conjugation of the neuter verb *ilfatin*, to be sick :

PRESENT.

tshi ilfatin, I am sick	tshiti ilfif, we are sick
intshi ilfatin, thou art sick	intship ilfif, ye are sick
ilfatin, he is sick	kinuk in ilfif, they are sick

PAST.

ilfatn tahi kuyi, I was sick yesterday	hiti ilfaf, we were sick
imku ilfatin, thou wast sick	imkup ilfaf, ye were sick
hu ilfatin, he was sick	kan ilfaf, they were sick

FUTURE.

midji tailfit tahii, to-morrow I shall be sick	tidi ilfit, we shall be sick
" tailfit maha, " thou wilt be sick	tapn ilfit, ye will be sick
" killfit, " he will be sick	kinuk in ilfit, thy will be sick

NEGATIVE.

wangk tabik ilfatit, I am not sick	wangk sotok hilfaf, we are not sick
" mangk ilfatit, thou art not sick	" mitingk piilfaf, ye are not sick
" ilfatin kok, he is not sick	" kinuk inilfaf, they are not sick

Akwii, rain, has the following variations :

kwitit, it rains
engkwitit, does it rain ?
wangkkwitit, it does not rain
hakwitit kitatabikim, it rained last night
tia kikunkwit, presently it will rain
wangk tia kumyakwit, it will not rain soon
tia kibekwiantit, presently it will cease raining

The following examples will give some idea of the system of transitions in this language, and of the extraordinary changes which the words undergo. It certainly would not be supposed, without such evidence, that *himkumiti* and *tatetat* were merely inflections of the same verb.

tahitapatahitup maha, I love thee
tahitapintahoo kok, I love him
hiantapintahlwata tahii kak, he loves me
hintahitapintahlwata tahii, dost thou love me

tahihotatabop tahii, I see thee
shoton tahii, I see him
himkuhoton kok, dost thou see him ?
himkuhototahofon tahii, dost thou see me ?
himkuhoton kinuk, dost thou see them ?
kinuk himkuhoton, do they see thee ?

sit kok, give him
 ahiteto soto, give us
 ahineta kinak, give them

cia patelip maha knaka kentan ? who gave thee that horse ?
 ahimma wala kotetat tahii, my father gave it to me
 medjii tikumti, to-morrow I will give it to him
 " takumti ahimma, thou wilt give it to my father
 kitetat he will give it to me
 tatetat thou wilt give it to me
 titetip I will give thee
 kitetip he will give thee
 cia himkuniti, to whom didst thou give it ?
 himti ahimma, I gave it to my father
 wangk tahii heek timyeti, I do not wish to give it to thee

Of the remaining vocabularies little can be said beyond what may be gathered from the vocabularies. In the language of Kij and Netela a few examples of plural and pronominal forms were obtained, which may be worth preserving.

Kij.

woroit, man	pl. wororot	tokor, woman	pl. totokor
kitah, house	kikitah	paikkuar, how	papaikkuar
haikh, mountain	habaikh	wasi, dog	wausi (qu. wasi)
jabot, wolf	tahishot	mohai, bad	tomohai
tiharwait, good	tirtwait	arawatai, white	rawanet
tahinul, small	tahitahinul	kwaokha, red	kwaukhoput
yupikha, black	yupinet		
ninak, my father		ayoinak, our father	
monak, thy father		asoinak, your father	
anak, his father		?	
nikin, my house		eyoknga, our house	
mukin, thy house		asoknga (?), your house	
akings, his house		pomoknga, their house	

Netela.

snoi, star pl. sulum

The following words appear to be also in the plural, with the possessive *my* prefixed; *nopulum*, eyes (*my*); *nanakum*, ears; *nikiwalum*, cheeks; *natakalom*, hands; *netemelum*, knees.

niki, my house	tsimnki, our house
omaki, thy house	omomomki, your house
poki, his house	ompomki, their house
nokh, my boat	tabornikh, our boat
om omikh, thy boat	omom omikh, your boat
ompomikh (qu. pomikh), his boat	ompomikh, their boat

The similarity which exists between many words in these two languages, and in the Shoshonee, is evident enough from a comparison of the vocabularies. The resemblance is too great to be attributed to a mere casual intercourse; but it is doubtful whether the evidence which it affords will justify us in classing them together as branches of the same family. The fact that the Comanches of Texas speak a language closely allied to, if not identical with, the Shoshonees, is supported by testimony from so many sources, that it can hardly be doubted.

THE "JARGON,"

OR

TRADE LANGUAGE OF OREGON.

A VERY singular phenomenon in philology is the trade-language, or, as it is generally called, the Jargon, in use on the North-west coast and in the Oregon Territory. The circumstances to which it owes its origin are probably as follows:—When the British and American trading ships first appeared on the coast, about sixty years ago, they found there many tribes speaking distinct languages. Unfortunately, all these—the Nootka, Nasquale, Tshinuk, Tsihailish, &c.—were alike harsh in pronunciation, complex in structure, and spoken over a very limited space. The foreigners, therefore, took no pains to become acquainted with any of them. But as the harbor of Nootka was, at that

time, the head-quarters or principal depôt of the trade, it was necessarily the case that some words of the dialect there spoken became known to the traders, and that the Indians, on the other hand, were made familiar with a few English words. These, with the assistance of signs, were sufficient for the slight intercourse that was then maintained.

But when, at a later period, the whites established themselves in Oregon, it was soon found that the scanty list of nouns, verbs, and adjectives, then in use, was not sufficient for the purposes of the more constant and general intercourse that began to take place. A real language, complete in all its parts, however limited in extent, was required; and it was formed by drawing upon the Tshinuk for such words as were necessary to add to the skeleton which they already possessed—the sinews and tendons, the connecting ligaments, as it were, of a speech. These consisted of the numerals (the ten digits and the word for *hundred*), twelve pronouns (*I, thou, he, we, ye, they, this, other, all, both, who, what*), and about twenty adverbs and prepositions (such as *now, then, formerly, soon, across, ashore, off-shore, inland, above, below, to, &c.*). Having appropriated these, and a few other words of the same language, the “Jargon” assumed a regular shape, and became of great service as a medium of communication; for it is remarkable, that for many years no foreigner learned the proper Tshinuk sufficiently well to be of use as an interpreter.

The new language received additions from other sources. The Canadian Voyageurs were brought closely in contact with the Indians; and thus several words of the French, and afterwards of the English language, were added to the slender stock of the “Jargon.”

Eight or ten words were made by what grammarians term onomatopœia—that is, were formed by a rude attempt to imitate sound, and are therefore the sole and original

property of the "Jargon." The word *tam*, pronounced with great force, dwelling upon the concluding *m*, is the nearest approach which the natives can make to the noise of a cataract; but they usually join with it the English word *water*, making *tam-wata*, the name which they give to the falls of a river.

All the words thus brought together and combined in this singularly constructed speech, are about two hundred and fifty in number. Of these, 110, including the numerals, are from the Tahinuk; 17 from the Nootkas; 38 from either the one or the other, but doubtful from which; 33 from the French; and 41 from the English. These two last are subjoined, as well as the words formed by onomatopœia; and an alphabetical English list of all the other words is added, which will show of what materials the scanty vocabulary consists.

ENGLISH.

<i>Bostwa</i> , American	<i>sawun</i> , salmon
<i>bet</i> , boat	<i>sel</i> , sail, canvass, cotton cloth
<i>Aakatahum</i> , handkerchief	<i>shus</i> , shoes, moccasins
<i>haus</i> , house	<i>shut</i> , shirt
<i>klai</i> , to cry	<i>sik</i> , sick
<i>klas</i> , glass	<i>skin</i> , skin
<i>Kintakotsh</i> , English, Englishman	<i>smok</i> , smoke
<i>kitt</i> , kettle	<i>sno</i> , snow
<i>kol</i> , cold	<i>solt</i> , salt
<i>lek</i> , lake	<i>stik</i> , stick, wood, tree
<i>lesi</i> , lazy	<i>ston</i> , stone, bone, anything solid
<i>lem</i> , rum	<i>stutshin</i> , sturgeon
<i>man</i> , man	<i>sun</i> , sun, day
<i>mun</i> , moon	<i>tala</i> , dollar, silver
<i>muskit</i> , musket	<i>ilai</i> , dry
<i>new</i> , name	<i>tahaket</i> , jacket
<i>nos</i> , nose	<i>tumala</i> , to-morrow
<i>oluman</i> , old man, father	<i>wam</i> , warm
<i>paia</i> , fire	<i>wata</i> , water
<i>papa</i> , paper	<i>win</i> , wind
<i>pos</i> , suppose	

FRENCH.

<i>kapo</i> (<i>capot</i>), coat, frock	<i>lepis</i> (<i>le pied</i>), foot
<i>kaset</i> (<i>cassette</i>), a box	<i>liku</i> (<i>le cou</i>), neck
<i>kuli</i> (<i>courir</i>), to run	<i>lilu</i> (<i>le loup</i>), wolf
<i>labush</i> (<i>la bouche</i>), mouth	<i>liman</i> (<i>la main</i>), hand
<i>lahash</i> (<i>la hache</i>), axe	<i>litan</i> (<i>les dents</i>), teeth
<i>lokles</i> (<i>la graisse</i>), grease, lard	<i>lu maran</i> (<i>loup marin</i>), seal
<i>lalan</i> (<i>la langue</i>), tongue	<i>mula</i> (<i>moulin</i>), mill
<i>lamestin</i> (<i>la médecine</i>), medicine, doctor	<i>papa</i> , father
<i>lamontai</i> (<i>la montagne</i>), mountain	<i>Pasaiuks</i> (<i>Français</i>), Frenchman
<i>lapip</i> (<i>la pipe</i>), pipe	<i>parese</i> (<i>françaises</i> ?), cloth, blanket
<i>laoui</i> (<i>la soie</i>), silk	<i>pulali</i> (<i>poudre</i>), gunpowder
<i>latapi</i> (<i>la table</i>), table	<i>sapelil</i> (<i>la farine</i> ?), flour, bread
<i>latet</i> (<i>la tête</i>) head	<i>sawash</i> (<i>sauvage</i>), Indian
<i>lawest</i> (<i>la veste</i>), waistcoat	<i>shante</i> (<i>chanter</i>), to sing
<i>lawie</i> (<i>la vieille</i>), old woman	<i>siapot</i> , <i>siapul</i> (<i>chapeau</i>), hat
<i>lebeskwi</i> (<i>le biscuit</i>), biscuit	<i>tonse</i> (<i>danser</i>), to dance
<i>lemuton</i> , sheep	

ONOMATOPOEIA.

<i>kau!</i> <i>han!</i> <i>hurra!</i> <i>hasten!</i> quick	<i>siktik</i> , a watch
<i>héhé</i> , to laugh	<i>tingting</i> , a bell
<i>klak</i> , untied, let loose	<i>tum</i> , a heavy noise
<i>liplip</i> , to boil	<i>tum-wata</i> , a cataract
<i>mash</i> , fallen, crushed, broken	<i>tuntum</i> , heart
<i>pa</i> , to shoot, noise of a gun	(<i>pilton</i> , foolish)

Foolish is expressed by *Pilton*, which was the name of a Canadian who became deranged at Fort Vancouver; he was the first person whom the natives had ever seen in that state, and thenceforward any one who conducted himself in an absurd or irrational manner, was said to act *kakwa Pilton*, "like Pilton."

ALPHABETICAL ENGLISH MEANING OF THE WORDS OF THE JARGON, DERIVED FROM INDIAN LANGUAGES.

arrow	canoe	horse	no more	to trade
all	cask	high	night	this way
always	cold	heavy	other	that way
afraid	to carry	hungry	off-shore	tobacco
ashore	dear	half	paddle	to turn
again	dog	iron	paint	they
angry	duck	immediately	perhaps	thou
bad	down stream	interrogative	quick	to or near the
before	dead	particle	river	river
beyond	directly	to jump	rope	to-morrow
bone	earth	to know	red	to take
black	elder brother	knife	road	tied
bear	ear	little	rain	to, toward
bird	elder sister	long	strike	this
both	eye	leg	soon	trowsers
below	to eat	long time	to salute	woman
bottle	formerly	to lie	sour	what
behind	flint	to lie down	sky	where
black	fire	to lose one's	slave	who
buffaloe	friend	way	to stand	we
basket	father	much	to sit	water
bow	far	to make	surely	to wish
brown bear	great	mat	stern of vessel	white
blue	to go	mother	sun	yes
by and bye	good	men	sweet	younger sister
beaver	to give	merely	so	younger brother
beads	green	milk	to steal	ye
bad	gun	no	mand	yesterday
berries	goods	now	stockings	
button	he, she, it	name	strong	
chief	hair	none	to speak	
to come	how much	needle	to see	

It may appear singular that some English words should be employed (such as man, sun, moon, stick, snow, warm, &c.), which, it would seem, might have been supplied, like the other similar terms, from the Indian languages. The reason is probably to be found in the fact that the corresponding terms in those languages are so exceedingly rug-

ged in sound as to be impracticable to even English organs of speech. In some cases where the Tshinuk term is less difficult, both that and the English are in use, and equally well understood: as *tsok* and *wata*, for water; *tshis* and *kol*, for cold; *olapits ki* and *paia*, for fire. The word *father* has three synonymes, derived from three languages: *papa*, from the French; *oluman* (old man), from the English; and *tilikum-mama*, from the Tshinuk.

The Americans, British, and French are distinguished by the terms *Bostun* (or Boston), *Kintshotsh* (King George), and *Pasaiuks*, which we presume to be the word *Français*, corrupted to *Pasai* (as neither *f*, *r*, nor the nasal *n* can be pronounced by the Indians), with the Tshinuk plural termination *uks* added.

In the phonology of the language one point is peculiarly interesting, as illustrating the usual result of the fusion of two or more languages. As the "Jargon" is to be spoken by Chinooks, Englishmen, and Frenchmen, so as to be alike easy and intelligible to all, it must admit no sound which cannot be readily pronounced by all three. The gutturals of the Tshinuk are softened to *h* and *k*; *tʃl* becomes *kl* at the beginning of a word, and *tl* at the end; and some of the harsh combinations of consonants are simplified by omitting one or two of the elements. On the other hand, the *d*, *f*, *g*, *r*, *v*, *z*, of the English and French, become, in the mouth of a Chinook, *t*, *p*, *k*, *l*, *w*, and *s*. The English *j* (*dxh*) is changed to *tsh*; the French nasal *n* is dropped, or is retained without its nasal sound.

The grammatical rules are very simple. Inflections there are none. There is no article. The genitive of nouns is determined merely by construction or position: as *nem papa*, the name of thy father. The plural is in general not distinguished: sometimes *haiu*, many, is employed. The adjective precedes the noun. Comparison is expressed as in most Indian languages. For "I am stronger than thou," words are used meaning, "Thou not strong as I."

A great deal is expressed by the mere stress of the voice. Personal pronouns become possessive merely by being prefixed to nouns. Relative pronouns must in general be understood.

In general the tense of the verb must be inferred from the context. Certain adverbs are, however, employed for that purpose, meaning now, just now, presently, soon, formerly. The word *tukéh*, which means "to wish," is sometimes used to express the future. A conditional signification is given to the verb by prefixing *klunas*, perhaps, or *pos*, from the English "suppose." The substantive verb is never expressed, and must be understood, as, "I sick," "thou foolish," for "I am sick," "thou art foolish."

There is but one preposition, *kwapa*, which is used for to, for, at, in, among, towards, &c. There are only two conjunctions, viz., *pi*, from the French *puis*, is used to mean "and," "or," "then;" and *pos*, already stated, meaning "if."

It may seem at first sight incomprehensible that a language, if such it may be called, composed of so few words, thus inartificially combined, should be extensively used as the sole medium of intercommunication among many thousand individuals. Various circumstances are, however, to be borne in mind, in estimating its value as such a medium. In the first place, a good deal is expressed by the tone of voice, the look and gesture of the speaker. The Indians, in general, contrary to what is, we believe, the common opinion, are very sparing of their gesticulations. No languages, probably, require less assistance from this source than theirs. Every circumstance and qualification of their ideas is expressed in their speech with a minuteness which, to those accustomed only to the languages of Europe, appears exaggerated and idle—as much so as the forms of the German and Latin may seem to the Chinese. But when the "Jargon" is used, the Indians become animated; every feature

is active; the head, the arms, and the whole body are in motion; and every sound, look, and gesture are full of meaning.

It should further be observed, that many of the words have a very general sense, and may receive several different though allied significations, according to the context. Thus *makuk* is to trade, buy, sell, or barter; *sakali* or *sahali*, expresses above, up, over, high, tall; *stik* is stick, wood, tree, forest, club, cane, &c.; *saleks* is angry, hostile, to quarrel, fight; *mitlait* is to sit, reside, remain, stop.

But it is in the faculty of combining and compounding its simple vocables—a power which it derives, no doubt, from its connexion with the Indian tongues—that the “Jargon” finds its special adaptation to the purposes to which it is applied. Almost every verb and adjective may receive a new signification by prefixing the word *mamuk*, to make or cause. Thus, *mamuk tshako* (to make to come), to bring; *mamuk klatawa* (make to go), to send or drive away; *mamuk mash*, to throw down, to smash; *mamuk po*, to fire a gun; *mamuk klash*, to repair, put in order, arrange, cure; *mamuk kikwili*, to put down, to lower, to bury; *mamuk klimin*, to make fine like sand; hence, to grind; *mamuk pepa*, to write; *mamuk kumataks*, to make to know, to teach, &c.

The following instances will show the usual mode of forming compound terms. From the English words *man*, *ship*, *stik*, *ston*, *sel*, *haus*, *skin*, are formed *shipman*, a sailor; *shipstik*, a spar; *stikskin*, bark; *selhaus*, a tent; *stikston*, a piece of petrified wood. The latter term was used by a native, who saw the geologist collecting specimens of that description: whether it was composed on the spot or was already in use, is not known. *Haiu-haus* (many houses) is the common term for town; *kol-ilehi*, *wam-ilehi* (cold country, warm country), mean summer and winter; *kolsik-wamsik* (cold sickness, warm sickness), pronounced as one word, is the term for fever and ague; *kwapet-kwumataks*

(no longer know) means to forget. *Tanas-man* (little man) is the term for boy; *tanaklutshman*, for girl. The usual expression for God is *sakali-taie*, lit. above-chief, or the chief on high. *Tum*, heavy noise, and water, make *tumwata*, a cataract; *tsul-tsok* (heavy water) is ice.

PART SECOND.

VOCABULARIES OF NORTH AMERICA.

VOCABULARIES.

MR. HALE'S NOTE ON HIS VOCABULARIES.

As has been before remarked, all the vocabularies are not to be regarded as equally authentic and accurate. Those of the Selish, Skitsuish, Piskwaus, Sahaptin, Walawala, and Waiilatpu, may be looked upon as correct, having been taken down with the assistance of the missionaries. The Tshailish, Nsietshawus, Tshinuk, and Kalapuya, may also, we think, be depended upon. The others were mostly received from single individuals of the several tribes, or from interpreters, and have not therefore had those advantages of comparison and revisal which alone insure perfect accuracy. But the great mass of words in all has probably been rightly understood and written.

There are certain words, however, in all the vocabularies, which are not exact translations of the English words under which they stand. This is especially the case with all generic denominations. The words given for *tree*, *snake*, *bird*, *fish*, signify in most cases merely some species belonging to these classes; as *pine*, *rattlesnake*, *pigeon*, *salmon*, &c. In many instances, where the natives were made to understand the meaning of the English word, they declared that there was no corresponding term in their own dialects. The word given in the Selish vocabulary for fish, viz., *suáuwitkhl*, comprehends all animals which inhabit the water, being derived from *sáwittkhwü*, which means water. *Waiutiliken*, the Sahaptin word for *bird*, means, properly, "the winged animal." The terms *town*, *warrior*, *friend*,

must also be reckoned among those whose vague or generic character makes it difficult to obtain an exact translation into the Indian languages.

If, as sometimes happens, there exists two terms for man (answering to *vir* and *homo*), they will usually be found, the former under *man* or *husband*, and the latter under "Indian, native." In general, however, there was no means of ascertaining with precision the existence of this distinction.

For the words *father*, *mother*, *sister*, *brother*, there will be observed a profusion of corresponding terms in the Indian languages. This arises from three circumstances well known to philologists: Firstly, the fact that the sexes use different terms to designate these relations; secondly, that the vocative, or the word used in addressing a relation, is often entirely different from that employed on other occasions; and thirdly, that the Indians are accustomed to designate the elder brother and sister by different terms from those used for the younger.

The words given for *spring*, *summer*, *autumn*, *winter*, do not often correspond exactly with the English terms. They are sometimes properly the names of certain months in those seasons; in other cases they signify merely *warm* and *cold*. *Morning* and *evening* have in every language, as in English (morning, daybreak, dawn, sunrise), so many corresponding expressions of slightly different meanings, that in general it was a matter of chance if exactly the same translation was obtained in any two allied dialects. The same may be said of *valley*, the Indian words for which signify *river-bottom*, *ravine*, *dell*, and sometimes *dry water-course*.

The distinction of *old*, as *aged* and as *not new*, is generally made in the Indian languages, and is sometimes pointed out in the vocabularies. But for *young*, in many cases, no word was found but that signifying *small*. This was the case in the Sahaptin, where, had any such word existed, it would unquestionably have been known to the missionaries.

It is remarkable, that in several of the languages the same word is employed to signify both *yesterday* and *to-morrow*. The meaning is determined by the construction,—usually by the tense of the verb.

The third personal pronoun was, in general, difficult to obtain, and the word by which it is rendered in some of the vocabularies probably means rather *that* or *this*.

The numbers above five could not, in several instances, be obtained with certainty, and in some not at all. This was the case in many of the southern dialects.

NOTE.

With respect to the Indian languages east of the Stony Mountains, it has not been attempted to correct the vocabularies which were obtained from a great many different sources, and to reduce them to a uniform orthography. They were all found quite intelligible, and that it was sufficient to know whether the author was English, French, or German. All those not inserted in the following table were taken by English or Americans.

GERMAN.

I. Eskimaux		
	Greenland from	Egede and Krantz
	Tshuktchi	" Koscheloff
	Kadiac	" Klapproth
II. Kinai	"	Rosenoff
XVIII. Koulischen	"	Davidoff
IV. Delaware	"	Zeisberger and Heckewelder
	Minsi	" Heckewelder
V. Onondagoes	"	Zeisberger
IX. Cherokees	}	Pickering's Orthography
X. Choctas		

FRENCH.

IV. Algonkins		
	Ottowas	from Hamelin
	Old Algonkin	" La Hontan
	Abenakis	" Father Rasle
	Illinois	" Anon.
	Micmacs	" Father Maynard in part
VI. Quappas	obtained by Gen. Izard	
XIV. Chetimachas	"	" Duralde
XV. Attencapas	"	" do.

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	<i>Families.</i>	
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N	IV. Algonkins.	Kuistinaux, Old Algonkin, Eastern Chippewas, Ottowas, Potewota- Sheshapootosh, Scoffies, Micmacs, Etchemina, Abenakis. [coken.]
O	"	Mamachusetta, Narragansets, Mohicans, Long Island, Minai, Nanti-
P	"	Miamis, Illinois, Shawnoes, Sankies, Mnemones.
Q	"	Onondagos, Senecas, Oneidas, Cayogas, Tuscaroras, Nottoways.
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W	<i>do.</i>	Pima, San Diego, Sta. Barbara, S. Luis Obispo, S. Antonio.
X	<i>not in America.</i>	Oonoolooka, Aleutian Islands, Kamchatka.

A.

Families. Languages.	I. ESKIMAUX. Hudson's Bay.	III. ATHAPASCAS. Tahculi.	IV. ALGONKINS. Chippewa.
1. God			ketche manito
2. Wicked Spirit			matche manito
3. Man			
4. Woman	aruqna		
5. Boy			kweewianik
6. Girl			ekwaxax
7. Infant, child			abbinoji (babe)
8. Father			nos
9. Mother	attata		ningai (my)
10. Husband	amama		nabain (my)
11. Wife	ooinga		nimadimoimish (my)
12. Son	nooleanga		ningwita (my)
13. Daughter	oerninga		nin danis (my)
14. Brother	panneeya		osyaiema
15. Sister	kuttangootes		missait
16. An Indian	kattangootes		
17. Head	innuct (pl.)		ne otegwon (my)
18. Hair	neakoke		mistakiah
19. Face	nuyakka		
20. Forehead	keniak		miskawtick
21. Ear	kaowga		ottowng
22. Eye	hecutinga		oskingick
23. Nose	oeega		schingnin
24. Mouth	kingara		oton
25. Tongue	kanneera		olainani
26. Tooth	okhara		neepit
27. Beard	kenewka		mizbidonagon
28. Neck	oomitkee		
29. Arm	tokeooga		onik
30. Hand	teiyakanak		nenintchin
31. Fingers	addeeyntika		nipinakwanenintcha
32. Nails	ukkiek (s)		oschikifin
33. Body	kookow		
34. Belly	meiyuk		nimyasat
35. Leg	kannara		okai
36. Feet	ittikeik (s)		ozid
37. Toes	puoogo (great)		nipinakwanimtan
38. Bone	heownik		okan
39. Heart	omat		otabeh
40. Blood	soonak		mishkw
41. Town, village			ogima
42. Chief			shimagnuh (soldier)
43. Warrior			neejee
44. Friend			wakyigna
45. House, hut	igloo		akkeek
46. Kettle	ootkoooseek		usowan
47. Arrow	kakleoke		mitigwab
48. Bow	pittooke		wagakwat (axe)
49. Axe, hatchet	oolecmow		mokoman
50. Knife	paowa		chimau
51. Canoe, boat	keiyak		ne mukezinon (my shoes)
52. Indian shoes	ittie gega		bukwaghign (that which is cut)
53. Bread	ahgalak		opwagn
54. Pipe			usamno
55. Tobacco			gishig
56. Sky, heaven	keituk		kirk
57. Sun	neiya		tipiki ktis
58. Moon	anoinga		anang (pl.)
59. Star	ooblooriak		kijk
60. Day			tipik
61. Night	oonoak		kijk
62. Light	kaomowoka (it is)		tipik
63. Darkness	takpake (it is)		kikshsip
64. Morning	oobiak		onagoosh
65. Evening			soegwua
66. Spring	openra		

A.

	ALGONIANS.	V. IAGQROS.	
	Delaware.	Mohawk.	Wyandot.
1	kitabe manito	lawaneen	tamainderne
2	matshu manito	oocooocooloohnoo	deghshurenoh
3	lenno	oocquich	aingabon
4	okhqeh	o-oocbecljien	utehkeh
5	pilaweta hitah	lucksare	omaintsautehah
6	okhqeta	icksaa	yaweetsentoh
7	amemens	lukshaha	cheabhah
8	nohk (my)	laganes	hayeta
9	gabowes	ystun	anebeh
10	wekhian	leakneederoc	
11	okhqeen	téagánóeterloók (my)	azuttunohoh
12	quisall	leevan	hoomekank (bus)
13	ukhdanall	ekheya	ondequien
14	nimat	téahgátááhnoondclih	haenyha (my)
15		kege	senyaha
16	lenape	guishoonwih	iomwhen (pl.)]
17	wil	snoonjee	skotan
18	nichhékén	oónoóqalá	arochis
19	wushginkuk	oocoonseh	souchis
20	wakhsalaw	ainakóishóókóróhghéh	ayetas
21	wittaak	wahunchata (pl.)	hooontaoh
22	wukinzwai	ookoria	yochiquendoch
23	wikiwon	geneuchaa	yangah
24	wdoon	wachwacarlunt	esakuheresh
25	wilano	oonachaa	undauchsheenc
26	wipit (pf.)	oohnoojah	uskoonshesau (pl.)
27	wattoney		ochquieroot
28	whiliangan	sunyarishgheh	ohoura
29		oosnnsa	
30	nakhk	oochsoochta	yorweesaw
31	lenshkanall	sahhuguehlahghah	eyingis
32	wikashak	oocheelah	ohetta
33	hockey	tchahshghah	
34	wakhley	ungwenda	andeenotah
35	wikhaat	surluks	
36	tot	oohlusheeta (sing.)	ochsheotan
37	walinahganawil	queer lahghah	
38	wokhgan	ohateeth	oona
39	w'deo	ahwaylee	yootooshaw
40	mocom	ookunchaa	ingoh
41	oteey	nekantas	ouhaly
42	sakims	lachshanuans	
43	natopelitsuk (pf.)	looskuhnoghethi	trezne (war)
44	elngomat	kootarriloo	nidanabé (brother)
45	wiquóám	cauchsha	nematzene
46	iloes	oondahk	ysyanetch
47	allons	cayunguerla	
48	hatteps	ohonah	
49	tamahicnu	otiokuh	ottoryns (axe)
50	pakhksbicau	suehnlée	weneashra
51	amokhol (boat)	oohinwayuh	gya
52	maksen	ohthajuah	araghshu
53	akhpoam	canatarvoch	destarah
54		canoonthwah	
55	labatey	oocengna	
56		karlunchyago	agbroniatn
57	gishukh	kelnquaw	yaanlehra
58	nijani	kilangpaw	wangbauntyaandehra
59	alack	cujestoch	teghshu (pl.)
60	gishku	wawde	oonhenha
61	tpojo	agheontha	asonley
62	wakben	tewhawothait	
63	pi-ke	tewhgariam	
64	wapan	lihpoungherchih	sonravoy
65	walakuka	yongarlaviekhah	leteinet
66	siqon	kungkweetch	honeragney

Families. Languages.	I. ESKIMAUX. Hudson's Bay.	III. ATHAPASCAS. Tahooli.	IV. ALGONQUIN. Chippewa.
67. Summer	owyak	tainte	noebia
68. Autumn		táketa	tahpigi
69. Winter	okeoke	kboeti	puoboa
70. Wind	anoee		noetia
71. Lightning	hadloome iktooma		
72. Thunder	kadlukpoke (it)	tetnik	niukli
73. Rain	makkoepoke (it)	naoton	kimaniwun
74. Snow	kanneukpoko (it)	ghúis	koa
75. Hail			saraiqun
76. Fire	ikkooma	kwasa	ishkodai
77. Water	imnek	tu	zeebi
78. Ice	sikoo	tan	niik waa
79. Earth, land	noona	kéia	ahko
80. Sea	tareoke	epashk	
81. River	koo (stream)	akokh	mebi
82. Lake		puogkat	sahpagan
83. Valley	nakeak (lowland)		tahwacraang
84. Hill		ahel	ishpataih
85. Mountain	kingnak		wudja
86. Island		taa	minnia
87. Stone, rock	ooyarra		ocia
88. Copper	kanooyak		niuk wabik (T)
89. Iron	sowik	ahestay	piwabik
90. Maize			mandamda
91. Tree	napakto	tushin	metik
92. Wood	kaiya	tsah	mitik
93. Leaf		la	anpiash
94. Bark		ikhlo	wigwosa (bush)
95. Grass	eeweek		methokam
96. Oak			
97. Pine-tree			
98. Flesh, meat	noerkee	otson	wiyaa
99. Beaver		taha	ahnik
100. Sew		yeetshi	addik
101. Bison, buffalo	oomingmuk (musk ox)	giddy	pizhiki
102. Bear	neenook	sas	niukwah
103. Wolf	amaroke	yes (large)	cuoenqun
104. Dog	keimeg	ikhli	aanimoosh
105. Fox	terroeanoearioo		wawgoosh
106. Squirrel			ahgwingoos
107. Rabbit, hare	ookalik		wabos
108. Snake			kinaibik
109. Bird	tingmeya		pihidi
110. Egg	mannig	ogaze	wawoi
111. Goose			wawa
112. Duck	mittiek (king)		ehubesh
113. Pigeon			omimi
114. Partridge			pink
115. Turkey			mezima
116. Fish	ekkaloo	thhuk	kikoa
117. White	kowdook	ikhlaial	wawbshkaw
118. Black	kerniuk	daikus	mukkwatwa
119. Red	soopulook	daikan	niik wa
120. Blue			ozhawankwa
121. Yellow	toongook	datteee	ozawa
122. Green		daiklaj	ozhawankwa
123. Great, big	angewoke	tsho	mitsha
124. Small, little	mikkee	wash	agahaw
125. Strong		lixa	machocawa
126. Old	istootkoosh	otá (long ago)	apptizi (agut)
127. Young	maktuke		okonego
128. Good	mamukmut (he is)	shu	onihashin
129. Bad	marmamut (he is)	nikahitakh	moakad
130. Handsome		nzu	kwondji
131. Ugly		neehay	manahdian
132. Alive, life	inonowoke (he is)	anna	pinadizaa
133. Dead, death	tokowoke (he is)	latnai	nepo (dead)
134. Cold	ikhoo	hangkar	kimasa

IV. ALGONQUINS.		V. IROQUOIS.	
	Delaware.	Mohawk.	Wyandot.
67	nipen	kouhayneh	houeinhet
68	tachquásen	kunnonnaughayneh	anandae
69	lowasne	kooiikhuhnggbeh	oxhey
70	kshakhan	taorunde	izuquas
71	sasabelekhellew	watichenloonteeuh	timmendiquas
72		tihooichlerhatte	heno
73	sekelaan	oochtaria	inawdase (it)
74	gón	conyete	denehta
75	mehocquamilew	ahwiss soondih	ondechia
76	tendeu	ocheerie	meeda
77	mbi	ochnecacas	saundustee
78	moquami	owissih	deebra
79	aki	oobunjah	umataagh
80	kitáhicán	esniatarlage	goontarosenne
81	éju	kaibonhatate	yeaudawa
82	menuppek	conyatarie	yoontauway
83	pakhsajek	chechuloon wakoo	quienontocain
84	wakhtshutit	woodate	onontah (?)
85	wakhtshu	yoonoondoo waunuh	onontah
86	menokhtey	cawaynoote	ahindo
87	akhsin (stone)	oonoyah	nrieta (stone)
88	mekhkakhsin	queeniés	
89	sukakhsin	kurlistanchee	
90	khsaqnen	onuste	nayhah
91	mihktuk	kevlitte	yeatonta
92	taakham	oyunte	otaghta
93		one-lachta	onrata
94	kocees	askoonte	
95	mekhaah	ochoute	erata
96	wonakhk wiminahi	tookuhuhah	
97	cuwe	ooknehtah	exrohi
98	ojoo	oowarloo	ohwaghta
99	ktemaque	chinnetoo	soolisie
100	achta	ooskunnoontoo	oughscanoto
101		jistikkuhloargoo	
102	mak'hk	ooquhariee	saue
103	m'turmea	ahguohhoo	
104	silum	alehsil	yanenoh
105	wocous	iitsho	ihensaintontó
106	pimingsa (red)	queerakhoo	oghtaeh
107	mushingua	tahhootahnaykah	
108	akhgook	oanyarleh	taengenseek
109	auwcheh	cheetweng	
110	wahh	oonhoolhsh	ognouchia (pl.)
111	kank	oonahsalikerhltut	
112	shihwew	soluck	taron
113	imi	wuhleetch	orittey
114	popocus	ooquaixun	acowian
115	tahikerom	akshwzlowprnce	daightontah
116	namoes	keiyonk	yeentso
117	wape	curlagu	onienta
118	nesquait	cushoonges	cheestahsh
119	makiaget	ooquchtaria	onichtaye
120		oolooya	
121	wisawek	cheenaguarie	
122		ohoonteh	odsinquarue
123	makhingwo	rooann	onen
124	tangtitti	conniwaha	okeya
125	tahitani	lahhuteteh	
126	kigeyi	loektshuhah	
127	wuski		
128		oogenerle	hanwobates (he is)
129	makhititan	wahhatekuk	
130		youlahseh	huaste
131	makhitissia	wahhattukuh	
132		yoonneh	erouteh (he lives)
133		yowhayyon	
134	kikatah (to be)	otoorle	tarea

Families. Languages.	I. ESKIMAUX.	III. ATHAPASCAN.	IV. ALGONKIN.
	Hudson's Bay.	Tahuli.	Chippewa.
135. Warm, hot	okko	hupzi	kezboyah
136. I	oonga	si	neen
137. Thou	il } weot ig }	yi	keen
138. He	ona		ween
139. We	oongoot	wane	keeahwind
140. You	ilippen		
141. They	okkoa		epien
142. This			mahaden
143. That	oona	intee	wahow
144. All		tain	kukurub
145. Many, much	oonooktoot (great many)	tkhal	bahieem
146. Who	kens (?)	mpela	wannai
147. Near		sikhtuk	besho
148. To-day	oobloome	Antil (now)	congum
149. Yesterday	ikpokeyuk	hulta	pitenehago
150. To-morrow	akkagoo	pontay	wawburk
151. Yes	ap	shá	uh
152. No	nakka	angtu	kaw
153. One	atowseak	etkhia	paizhik
154. Two	ardlek	naughtak	noezhwaw
155. Three	pingahuke	ta	niazwaw
156. Four	attamat	tingthi	newia
157. Five	tedleema	skunlai	nahnon
158. Six	argwenrak	skitake	gotonow
159. Seven	argwenraktowa	takalte	noehwawwee
160. Eight	kittukleemoot (mid- dle finger)	ulkittingi	shwawwee
161. Nine	mikkeeluktamoot (fourth finger)	lanizi-ekhlábola	abongurwe
162. Ten	oerkitoka (little fin- ger)	lanizi	medorwe
163. Eleven		lanizi-ot-etkhia	shipeyik
164. Twelve		lanizi-ot-nangtang	ash ni/ mitasoch
165. Twenty		ot-lanizi	nigetawan
166. Thirty		tai-lanizi	niwois mitaan
167. One hundred		lanizi-lanizi	ningoutwak
168. Thousand			metatutaito mitaan
169. To eat	tammoawoke (he)	ayie	wiminee
170. To drink	immiemoke (he)		
171. To run	akpayuke (he)	kutkhkai	che-pemebattoar
172. To dance	momek poke (he)	bakhtabin	neemi
173. To go	sunee	wustishian	cha-mahchaht
174. To sing	imniek poke (he)	ushin	nugamoo
175. To sleep	seemik poke (he)	parmistee	neha
176. To speak	okuk poke (he)	dasni	keegido
177. To see		ain	wabuma
178. To love		khusee	osagisan (she, he love him)
179. To kill	tokoo poke (he)		cheniesaut
180. To walk	pebuko poke (he)		pemomai

B.

Families. Languages.	IX. CHEROKEE.	X. CROTA-MUSKOG.	
	Cherokee.	Choctaw.	Muskog.
1. God	oonalahnunghe	hoshtáhl	hihagita himise (breath master)
2. Wicked Spirit	askina		
3. Man	askaya	hottok nokui	itahonannah
4. Woman	ageyung	kottok ohyo	hokte
5. Boy	asistia	vla sáni	chiboooi

ALGONKINS.		V. IROQUOIS.	
Delaware.		Mohawk.	Wyandot.
135	kshitten	oosaino	otereants
136	ni	see	doeh
137		osee	sah
138	neka	longwha	howomohah
139		dwaquaigo	owwomohah
140		eeee	psoomohauh
141	nalluil	lettenuwha	hentoomohauh (masc.)
142	nanni	koongkoyeh	n'deechoh (sing. and pl.)
143	manni	too ahheekoyeh	n'deechoh (sing. and pl.)
144	weemi	awquayakoo	
145	kheli	ayoo	
146			
147	pekhuat	koohngoothaiton	p'seenah (sing. and pl.)
148	kigooquik	kohhwahneh	
149		tuhterhahh	
150	woopange	younhunnah	
151	egohan	uu	beh
152	makhia	yachtu	tayauh
153	n'gutti	oohskott	seat
154	niakha	lekkehnih	tiudee
155	nakha	ohson	shaght
156	nawa	kuhayrelih	an'aght
157	nalan	wiak	weeish
158	guttasfi	yahyook	wausbau
159	niabaah	chahhahk	sootahie
160	khazah	sohtayhko	aturah
161	pehgonk	tihooton	aintra
162	tellen	weesyhlih	anghaah
163	tellen wqak n'gutti	oohskohyahwarhleh	usah ewats escarhet
164	tellen waokniha	tekkehnihyahwarhlih	assanteni escarhet
165	nischinakhki	toowahsun	tendehawangha
166	nakhinakhki	ohsonniwahsun	shighkawangha
167	guttapakhki	oohkohtowenyawoweh	sculemaingawe
168	kispakhki	towenyawow wehterealahsun	usah attonoignawoy
169	mizin	hottihkoonih	hongahoh (he)
170	menneen	ichnikeeh	erayhrah (he)
171	gekhamehellan	teoreiachahh	
172	gentkehu	noonihach	sereh (he)
173	pommiasia	tecoothahhoch	toroets
174	alunsin	kuriuhnoh	hoooinaawee (he is)
175	gauwin	yihkoota	atakis
176	aptonoon	thowahnibuhgun	eehayenk (I see him)
177	neinen	yoontkahthooe	sendoorohquoh (I love him)
178	shoolan	onooett (love)	
179	nihilan	koownrtilien	sureehue (do.)
180	akhpamsin	yawronteoooggo	ereh (he walks)

E.

VI. STONK.		
Dacota.	Ojaga.	Upsaroka.
1	wakhootungah	wakondah
2	wakhansheecha	
3	weethahsktah	neka
4	weenowkhindgah	wako
5	oakhheeduh	shinzo shinga
		tak ah boe afta
		appa ush bde
		betsee
		me ya kat tn
		shak kai te

Families. Languages.	IX. CHEROKEE.		X. CHOCTA-MUSKOG.	
	Cherokee.		Choctaw.	Muskog.
6. Girl	ayayntea	villa tek	okulomba	
7. Infant, child	oostekuh	imulla (his)	bopohyah	
8. Father	etawla (my)	auukka	ihhie	
9. Mother	etai (my)	iskeh	ichakie	
10. Husband	agiwahi (my)	k'xtók	ibhi	
11. Wife	agwatalii (my)	tekehé (his)	hyvah	
12. Son	agwataiskaya (my)	ushé (offspring)	chahpazbe (my)	
13. Daughter	agwataigeung (my)	owetik (his)	chahchostie (my)	
14. Brother	ungenele (my elder)	itápiahi	taychekadny	
15. Sister	ungedo (my elder)			
16. An Indian	ungwiya	bókók vpi homma	istynchaduy	
17. Head	akaw	unshkobo	ikah	
18. Hair	gilling	panshé (his)	isti	
19. Face	ookahunge (his)	múshlanta	toblova	
20. Forehead	ahgung dahgane (his)	ibitókla	nygenoma (his)	
21. Ear	gule	hokshbah	buchko	
22. Eye	tikata (pl.)	mshkin	toilidwah	
23. Nose	kohyungshli (my)	ibichalo	yópó	
24. Mouth	tsawli	isuté	chaknóh	
25. Tongue	gahnoghah	isunúsh	tolaooh	
26. Tooth	tetsinutawgung (my)	noté	noté (pl.)	
27. Beard	ahhahnoolunghunge (his)	notkfish (hair of the jaw)	chékwianry	
28. Neck	ahgelega	ikwula	innokewau (his)	
29. Arm	kuhnoga	shukba (his)	sakpa	
30. Hand	agwoeni (my)	ibúk (his)	inkko	
31. Fingers	dagahyahdunge (his)	ibbókushi	ingwoysanga (his)	
32. Nails	oonahngoh	ibbókshnah	ingwoowau	
33. Body	ahyalunge (his)	hoknip (his)	enah	
34. Belly	ikfuká	ikfuká	inhahkay (his)	
35. Leg				
36. Feet	talshodane (his)	iyé (his)	nli (sing.)	
37. Toes	akahnahhdunge (his)	iyshé		
38. Bone	ookolah	fonné	nyfonyy	
39. Heart	oochoe	chanklab (his)	il'ka	
40. Blood	keegung	isish	chata	
41. Town, village	gahdoohung	tomahá	takofsh	
42. Chief	oogungweyube	minko (king)	istemoppi	
43. Warrior	dahnahwahádohe (one who goes to war)	túshka	tošenaggi	
44. Friend	genahlee		onéi (my)	
45. House, hut	halitawteh	chukka	chookgaw	
46. Kettle	atsahyah (copper)	usannok	chamokowau	
47. Arrow	gahne	eski nóki	khili	
48. Bow	gahltrahde	iti tanémpo	itchvkkalox	
49. Axe, hatchet	gahlooyahste	iskiffa	pohtroozhie	
50. Knife	hahyalahste	boahpo	lelelaffka	
51. Canoe, boat	tsu (popular)	pené (boat)	bilkiúh (boat)	
52. Indian shoes	delahsulo	shulsh	istill pygah	
53. Bread	ketu	púka	takelyge	
54. Pipe, salamat	gahnungnahwah	ashúka		
55. Tobacco	choolng		hitchi	
56. Sky, heaven	gullungúidde	shutik	soolah	
57. Sun	nungdohegah	hshé	hahie	
58. Moon	onagdohsungnoyee	hshmnokaya	hahieie	
59. Star	nawqubi	shik	kooto laosibah	
60. Day	ikah	nittok	nittah	
61. Night	onngnoyee	ninnok	neilhi	
62. Light	egah	tohwékell	hiyaguy	
63. Darkness	oolosege	okthiblé (dark)	nomuchkuy	
64. Morning	sunnahse	onnihilé	hotthakuy	
65. Evening	oolungbe		yhof kosuy	
66. Spring	go	tofahpi	tsaachny	
67. Summer	kohkeo	toméjille	miaki	

VI. Sioux.

Dakota.	Ojaga.	Upsaroka.
6 wreetsbeahnah	ebema shinga	mé ya kat te
7 oakhee Spah		bák kat te
8 atag	indajah	mé noomp hbe
9 eenah	enauh	e kién
10 hénahkoo	enocca	batsh e né
11 lowéetsahoo		moóah
12 meetahingkshee (my)	weehinga (my)	me nárk betze
13 meetshoongkshee		me nárk mea
14 soukakoo (his)	ewespinda	boo coup pa
15 tonkabe	wetongah	boo coup mea dian)
16 hiecoebewochasta		ab sar too ke (a Crow In-
17 pah	wataterah	mar'h na
18 pahkee	pauha	me shé ah
19 eetai	inga	é sa
20 eetai	pak	hhea
21 pobe	naughta	uppa
22 lahta	eghtaugh	meah' h te
23 poughay	pau	bup pa
24 ea	ehaugh	éa
25 tshayabee		dáy' zabe
26 hee		éa
27 pootaibi		é sha é sha
28 taboo	tahu	shú ah
29 ishlo	haugh	bár re
30 nahmpay	numba	buu chié
31 shake	shagah	buu chié
32 shaka	shaga haugh (finger)	muhh' re
33		booh hhoú ah
34 taze	chosa	bá re
35 oosudee	saganh	bu chóppe
36 sechah	see (sing.)	but che
37 sechukasa	see pangh	itshe ara hahí
38 hóohóo		hoore
39 chantai		naa' aa
40 wey		é da
41 otoo	towah	ash chér
42 wreeshahstahyahlahpes		bet' s' et too
43 ahkishutah	ankedaugh (soldier)	naa' aa bat taat
44 koandah		skeéh
45 tea	tiah	aa' sra
46 chaha	chahah	ba ruh hea
47 wahintopay	muja	ah nú i te
48 estabzeepah		bia túhh e ah
49 onpa (axe)		máeh e pa
50 eesahug	mauah	mitaa
51 wahtah		máh zabe
52 hanipa (sing.)	analahah	boompe
53 ahboyahpes	wabuskah	hó hhez zaa
54 wuhndópah	nonnowibo	im'p aa
55 tahundéa	nonchng	bú pa
56 mahkpea	muhagh	am mah hbe
57 weeahnipayatoo	hanip (day), weerah meah (sun)	ah hhi sa
58 weehayahaloo	hanip (night), weerahme- guboh (sun)	min na tat che
59 weewestheestin	weerah, (sun), kotahkah, (suspended)	e kien'
60 anipa	hompahs	man pa
61 hiyetoo	bens	ó che
62 ojanjan	hombalanganah (adj.)	th' zabe
63 paa	hompasa (adj.)	chip pu'h e ka
64 hahana		chin nák shea
65 tassetoo		ap pah
66 way'ayaytoo	paton	mé a muk ebe
67 mendekay aytoo	togaton	me a muk she

Families. Languages.	IX. CHEROKES.	X. CHOCTA-MUSKOG.	
	Cherokee.	Choctaw.	Muskog.
68. Autumn	oalahgohote	hushalape	hiofongey
69. Winter	kohlakorah	onafa	hialfo
70. Wind	unawleh	máhlí	hotalayé
71. Lightning	ahnahgahleske		ahk'pantay
72. Thunder	nhyunglagootska	hílohá	tonúkie
73. Rain	agaskah (it)	onjpa	onki
74. Snow	ungnawti	oktsha (to snow)	tilligse
75. Hail	gahnsochkah (it is hailing)	hatafo	bohannapobley
76. Fire	atsilung	liook	totrah
77. Water	álmah	oka	wyrah
78. Ice	oonestalah	okte	hstote
79. Earth, land	alawhi	yaukeneh	ikahnah
80. Sea	ahmaqoche	okhitta	onhivkto
81. River	equomih	okhian (water course)	hatehí
82. Lake	ungdahle	haiyip (pond)	okuzny haktó
83. Valley	wawtalung	okfa	ponova
84. Hill	usqualungtang (round)	nunne	hlanape
85. Mountain	odahle	nunné'chaha	hlanpny
86. Island	ahmahyale	yóknitahaiyi	atuti
87. Stone, rock	nungyah	túllé (metal stone)	chalto
88. Copper	atsahyah	loh lókna	
89. Iron	tahlugake	lólí	chattohlwraguy
90. Maize	aloo	tonché	aháí
91. Tree	uhduh	ítte	ítah
92. Wood	ahdah	ítte	nyio
93. Leaf	oogahlogv	ítshí hshé	ítshíne (hair of man)
94. Bark	ooyahlogah	knkchí'lhupé	toahpoy
95. Grass	kahnaskah	hnshehnek	
96. Oak		baie (white)	lakchoppe
97. Pine-tree	notchee	tiok	chóohape
98. Flesh, meat	huhweyah	nippé	ahpísochah
99. Beaver	tawyi	kinta	ítch haseocha
100. Deer	ahwhih	ítse	ítzo
101. Bison, buffalo	yahnshah	húnnúsh	yha níoma
102. Bear	yonung	nita	noopodk
103. Wolf	wuhyah	nushoba	yahah
104. Dog	gele	ofe	íffah
105. Fox	asuláh	chulo	ohobin
106. Squirrel	zahlole	funné	nyhlo
107. Rabbit, hare	tsatoo	chukfè	chofny
108. Snake	enahdy	sinti	ohitto
109. Bird	tsiqwah	hushé	foococha
110. Egg	oowatae		íhosewan
111. Goose	sahsh	honkha (wild)	sahsowan
112. Duck	kahwovo	foochosa	focho
113. Pigeon	woye	patche	pajay
114. Partridge	thungdestah	kofé	kowgyy
115. Turkey	gunguung	fokhit	pin wan
116. Fish	alatah	ofúné	tsáhhó
117. White	unekong	lahbe	halki
118. Black	kungnahgeh	lusa	lusi
119. Red	keekahgeh	humma	chakti
120. Blue	sahkoynegh	okchoko	hohatti
121. Yellow	dullawnegh	lokua	lahi
122. Green	etahé	okchimma'á	pahyá'nan
123. Great, big	equah	chito	tsáhhá
124. Small, little	syawti'voti	iskitiné	chok'oua
125. Strong	oofenege'eden	khílo	ts'okhát
126. Old	owate	sappokua	ts'ochóol
127. Young	awinung (person)	sahimmita (I am)	ts'áhhá
128. Good	awsi yu	achukma	hokkhá
129. Bad	ooyohé	okpullo	hoolowán
130. Handsome	oowodon	aiukné	hnyá'nyay
131. Ugly	oowagelungde	úcheba (to be)	hohwragy
132. Alive, life	gungnodung (alive)	okchaya (to live)	nyá'nyay
133. Dead, death	ooyohoonng (he is dead)	ilé (death, to die)	lígah (death)

VI. Sioux.		
Dakota.	Osage.	Umparoka.
68 piyayytoo	tondah	bis áá
69 wanéé aytoo	barrah	man nees
70 teshang		hoót see
71 wahkhongdee		thah' sahu
72 walkeesang		soo
73 magtzboo	neighabee	han náh
74 tahley	pau	bé ah
75 wahsoo		mak' koo pah
76 paytah	pajah	be dáh
77 minee	neab	min n'ee
78 ehaha	nonháb	be rooh hhe
79 mahkah	moekah	am m'a
80		min neéu ke sháh
81 watapañ	wanchisak	a-h' zsu
82 nesude	tchair	min néetch ka
83 seemongca		ah ra chu ke
84 khynyah		mab' jo
85		ah nu háb be
86 weotah		min ne pá shu
87 ceang		mé
88 mawzazeo		ó mat tih e
89 mazaí		ó mat te
90 wamunoyzah	wantanshee	húo hhas ahu
91 teshang		bah ooo
92 teshang	shangh	mo-ney
93 wahkhpéy		money áh pa
94 ebanha		é she
95 payzhee		be ka
96 ooskoo aytaha (white)		dach pit' sees money
97 wahzoe		bariche
98 tando	tandocah	a roók ka
99 teshawpah	shabah	be rúp pa
100 tahktindgah	tantonge	gha
101 tahtungkah	shatogh (bull)	bish' a
102 wahungkwotshah	wasasuba	duk p'it sa
103 shúktokecha	shomacooke	chata
104 shoomendokah	shongah	bis ka
105 soheeda	mouchu lozana	cheer up to dá hhe
106 zeecha	ceingah	ahá dá za
107 mashteechnong	moetogah	ish te
108 wahmundooskral		eum hhas sah
109 zúka		dúkkap po
110 weetahkah	waunum sukah (hens)	eik kien
111 nonghaw	ochás shaubah	mé na
112 tagawksaetshah	mehawpatoh	mo hha ka
113 waukeeshaydah		main pa tsí sa
114 zecha	monucne	chitch ké kak
115 yichstanka		dik kaka ko c'kn
116 hoo-ahug	hough	hoó ah
117 skah	skah	chú se
118 sehpañ	saubah	shu p'it kat
119 shah	shugah	bish e cat
120 toah	toho	shú ah cat
121 zee	sehah	shé re cat
122 taytoah	behisko	she re cat
123 tungkah	grondah	e sáh
124 tacheestin	wahokah	é cat
125 wootah		bat sáts
126 kon (Agad)		car ra har' res
127		
128 haywashtá (it is)	tonhai	it'sick a
129 shoeha	pehia	kub béek
130 washtai		e pit' sa
131 soeha	patia	eesh cub hook
132 nee	tee (life)	it shú sa
133 khleyh	outsah	car ra shú

Families. Languages.	IX. CHEROKEE.	X. CROFTA-MUENDEG.	
	Cherokee.	Choctaw.	Muskog.
134. Cold	oobunglufg	kuppima	kusepe
135. Warm, hot	akanawng	lãhpa	bahiye
136. I	ayung	unno	uneh
137. Thou	neho	chihno	chamuk
138. He	naki		nuh
139. We	ahyung (I, we)	ihino (dual)	pomeh
140. You	neha	hnehno	chimeh
141. They	naki		bayah
142. This	heeh	ilãppa	uaga
143. That	nahne	yõmma	mot
144. All	negabdung	okluha	molpah
145. Many, much	oonetahial	iana	sookih
146. Who	gahgo	kitta	etat
147. Near	nahungne	bilika	imawwoofuy
148. To-day	koha egah (this day)	himõk	mojanita
149. Yesterday	oosunghe	plashah	porungvuy
150. To-morrow	unaha	onaha	poray
151. Yes	ungung	ya	lingpah
152. No	liah	cha	hagot
153. One	aaqnoh	achofee	boomaye
154. Two	talce	tuklo	hokto
155. Three	taawi	tuchina	tochuk
156. Four	nunggh	ohia	otah
157. Five	hiskce	lahlepa	chahkie
158. Six	modalih	hanali	ebbah
159. Seven	gugwangih	untuklo	koolobah
160. Eight	tunelah	untuchina	ohinnabah
161. Nine	sohonhalah	chokali	otabah
162. Ten	uhkohhah	pokoli	pahla
163. Eleven	ahdoe	anachõfa	pahla hõnginda
164. Twelve	talatn	suatukto	pahlahokobehakgh
165. Twenty	talaw skawhi	pokoli toklo	pahlahokobeh
166. Thirty	taawa skawi	pokoli tochina	pahlahokobeh
167. One hundred	askawhitngui	lahlepa achofa	chõpõkõ hõngin
168. Thousand	aka yungli	lahlepa sipokmschõfa	chõpõkõkõhõ
169. To eat	ahlestahyungbungkah (he)	impa	humbõcha
170. To drink	ahdetahkah (he)	ishko	hahõcha
171. To run	ahdehe (he)	chuffa	stkanõcha
172. To dance	ahleskeh	hithia	panabõcha
173. To go	ahc	ia	agay
174. To sing	dakahnogah	tallog	yahõgõbõcha
175. To sleep	gahchah	nusõ	nõgõbõcha
176. To speak	gahwanehah	unnoõ (to tell)	ponia yay
177. To see	ahgowahlehah	pama	higõbõcha
178. To love	oogwahah	hiahne	imayyõhõy
179. To kill	ahdahnehah	hõhõ	ilõchõcha
180. To walk	adõhah	nowa	yahkahõcha

C.

Families. Languages.	IV. ALGONKINS.	XXXII. SHOSHONKS.	XXIII. SIALIS.
	Blackfoot.	Shoshoni.	Flathead.
1. Man	ninoo	tãka	skãtãmekho
2. Woman	akina	kwas	õmãlã
3. Boy	pokko	nãti	skõõõõ
4. Girl	kõkwa	nãntõõ	chãntãm
5. Infant, child	enãkõtipõkõ	wa	ãttãl
6. Father	õisõ (my)	ãpui	lãõõ (by men)
7. Mother	nãkã	piã	skãõ
8. Husband	nõmmi (my)	kãkã	skõõlõi

VI. STOUX.		
Dahootas.	Osego.	Upsarokas.
134 snee	nubateha	hoot ahé re
135 dindita	tooscha	ah r'a
136 meeah	veca	bé
137 neeah	deca	de
138 ceah	aar	na
139 oangkeeah	unguar	bé ro
140 neeahpoo		dé ro
141 ceahpoo	hanoncar	mi háh
142 dey	laimksha	hia ná
143 bey	lailai	ah oook á
144 owos		hoó ah cás oo
145 neenah		ah hook
146 tny	pai (sing. and plur.)	sip pa
147 askabaah		man pá
148 ahmpaytabes	hasaja	hoó riz
149 tanneehah	boya	shiu nak share
150 hayahkaytheehah	honkosha	kó tah
151 ha	minche	bar uot kah
152 heeba	nombangh	ah nu't eat
153 wajitah	laubenah	noom' cat
154 nompah	tobah	nam'ena cat
155 yshuani	sattah	shope cat
156 íópah	sagah	chi hho cat
157 zálpate	panompah	ah cam á cat
158 shahkopí	kelatobangh	soi' pé ah
159 shahkopí	shankah	noom' pé pe
160 shahundobah	krabra	ah mut tap pe
161 nopathí wongah	augre minche	pe ra ku'k
162 wiktahImani	augre nombanghwa	ehh pe noomp
163 akéy wahjeetah	augre crabrah	noom' pap pé ruk ka
164 akéy nompah		nam' e na pe ruk ka
165 wiktahheemaneé nompah	crabrhnghtongah	pe reek áh
166 wiktahheemaneé yahmasee	wannabra	pe reek áh pé ra ka
167 apoooghay		bah boos'h me ka
168 kokot ooooghay		
169 uota (he)		
170 heeiatekaupeketa (he)	nebnatoh	amim' milk
171 doozakou	tannch	ak ha roóah
172 wacheepe (subst.)	watcha	dish áhe
173 hiaqmeta (he)	mogronah	dah'
174 dowompe	asembrah	mun' nobbe
175 hayschima	obraka	mag ghu'm me
176 eap	eelaloe (I see him)	be dow'
177 waumadaka (I see him)	wahscheeng (I)	ah mu'k kah
178 wahscheeng (I)	wahsqeta (I kill him)	ah mutch e áhe
179 whaqeta (I kill him)	ogurah	bah p'ake
180 mannee (he)		nó ne

C.

XXIV. SAHAPTIN. Nex Powó.	XXVI. CHINOOK. Lower Chinook.	XXI. WAKASH. Newitsee.
1 háma	tshlékálá	tshléhakhwondak
2 aint	tshlékálé	
3 haawal	tshlékúks	
4 pitlu	tshlékélh	
5 mináts	etsháúks	
6 pash	tshliamámá	
7 pika	tshliáná	
8 háma	tsakhékal	

<i>Families.</i> <i>Languages.</i>	IV. ALGONKINS. Blackfoot.	XXXII. SHOSHONEES. Shoshoni.	XXIII. SALISH. Flathead.
9. Wife	nitukhkissan	wápuł	makhonakh
10. Son	nokhon	natsi	ukokosa
11. Daughter	utáni	nasai	stamiháilit
12. Brother	nisa	lamye	kátshí (elder)
13. Sister	niskun	namel	káshikoo
14. Indian; people	matapewak		skáshku
15. Head	otakan	paupí	spitshlákája
16. Hair	oksi	topis	khomkan
17. Face	ostukis	knws	skhutkhiós
18. Forehead	oh néé (M.)	motwka	skitshikimashin
19. Ear	okhtokis	ináká	tána
20. Eye	otápe	pul	skitukhúetan
21. Nose	wokam	mosi	spesáka
22. Mouth	oai	timpa	spulimáwan
23. Tongue	metáwésti	aku	tikhutaki
24. Teeth	okhpikin	lángwa	khakékh
25. Beard	okweja	móntahs	éópátain
26. Neck	okokini	kuru	tahsápin
27. Arm	oknistais	paírú	staboákhan
28. Hand	ntshistahs		kelish
29. Fingers	ntshistahs	mashe	stamakainikt
30. Nails	okutshish	máshita	kakhkainikt
31. Body	ostome (M.)	shítamsh	skaitstahi
32. Leg	omakúki	yín	stoshin
33. Foot	ósk sa kuh (M.)	stampa	stoshin
34. Toe	oak kit teaks (M.)	tashu	istumashin
35. Bone	ohh kin nah (M.)	húu	stam
36. Heart	okkúti	pú	spoo
37. Blood	ah lah pas na (M.)	paápe	smékhóul
38. Town, village	aketsupwa	kúu	ispakshít
39. Chief	nínóoa	tuwa	ilimikhom
40. Warrior	kóonápaw	natsi	kutespóda
41. Friend	nitakawan	iwok	istak ai
42. House	napiwis	nowi	tsitukh
43. Kettle	húka	ultas	tshítshéep
44. Bow	némái	stshu	takwenlah
45. Arrow	ápa	wesá	tapomin
46. Axe, hatchet	kúksákin	hahnhwan	shilwéu
47. Knife	utóán	hwíhi	nintshamun
48. Canoe, boat	skhsháts	shake	ukhia
49. Shoes	stákin	patsa	khainin
50. Pipe	skhshenimán	púu	swamúkhúotun
51. Tobacco	pestákas	pamun	sumúkhú
52. Sky, heaven	kúscistáksai	pataksia	stahishamshait
53. Sun	náioan	tava	spáshasé
54. Moon	kókwina tósh	muahhá	akokóts
55. Star	shkatósin	putáshwa	kókusw
56. Day	kihshstáksot	tashun	skhútkháit
57. Night	kókói	tukwan	skhokhoets
58. Light	chris t e coo natz (M.)		kbal
59. Darkness	piáshkinátsi	itshuku	itshém
60. Morning	apóakus	wnahipar	skék wéknata
61. Evening	tshstákus		sknikai
62. Spring	mo toá (M.)		sképsatun
63. Summer	atáhi	tsats	shántáshke
64. Autumn	motose (M.)		stshéé
65. Winter	wakwi	tomu	siústahi
66. Wind	spápi	zwur	sunéowit
67. Thunder	chris t e coóm (M.)	tsnónt	spátsáam
68. Lightning	chris t e coom e (M.)	panakwaha	skumúkwétsia
69. Rain	sóta	uwer	stéipia
70. Snow	kónis	niwewi	sumákhwot
71. Hail	sh'eo (M.)	páungp	skhúe
72. Fire	ishthi	kóna	shshítá
73. Water	okhái	pa	shwúkhkwi
74. Ice	kókwutátsi	pahikap	skhúwént
75. Earth, land	sákhkwi	tiwip	shakéku
76. Sea	omakhkwink	ewips	sk'ipékhshamshat

XXIV. SARAPTI. Nex Forod.	XXVI. CHINOOK. Lower Chinook.	XXI. WAKASH. Newtime.
9 iwipna	niakbékai	
10 haswalamata	etookha	
11 pilinimata	okwakha	
12 pap	kakha	
13 kanis	tkhian	
14 útokan	talexam	
15 húshus	tkhlikhukataka	tokhoteot
16 kukukh	tkhlikhukso	apsalup
17 musahat	siakbos	
18 shiwa	obétsipókh	
19 musalup	bétsaaks	yupéshis
20 shilo	siakbos	kaóshim
21 musahus	ebekhatakhét	tabowtkhNam
22 him	ebéskhatkhl	
23 pawish	emEmankónóba	uhapoc
24 tr	tkhlibeatakh	tahitahidés
25 himtoh	tebehekso	apakéam
26 ilhat	betokkh	
27 alim	hepotétuk	nofaxp
28 epáp	tebkáig	
29 epáp	tebekáig	kakaisidók
30 mus	tkhlibétkhlekhotétak	tahatakatahi
31 wíakt	ebeekhí-a	
32 wáru	tá we	tkhlibétkhlibé
33 akhna	tkhlikhups	
34 akhwatalem	tkhlikhups	papítah
35 pps	isotso	
36 timiná	tbeleléwan	tepsishé
37 kiket	tkhlawúkt	tkhlikh/wákhabe
38 piáshamókin	ilikham	
39 miókhut	tkhlikhákamánan	tabaháta
40 pikhliwukhúkhlem	akh/ákéukau	
41 ishp	tuánakha	
42 inít	tóotkhl	mbáan
43 hikaj	kakotkhléit	opéniak
44 timóni	optkhleke	moostah
45 tsap	tkháitapam	tekhítah
46 wewwíamiah	akaisét hlebá	isak
47 wsh	opstákh	kakávak
48 liash	ekauem	tahapwá
49 shapkat	takaitkhiba	shé-teakhlíak
50 ke/emst	tshéjemet	koláhtwakhak
51 toh	kainotkhl	koiehi
52 bakat	kosakh	tkhlesenkak
53 halhlpama hishamtuks	ootkhlákh	opatkhlak
54 akaitpama-hisbamtuks	ókukhlarom	ndakéak
55 khatasin	khekasp	
56 halákhp	etsoktet	tkhliakakak
57 sikuit	nopowam	atkhétiduk
58 lakauit	wakh	
59 sháktit	noponum	
60 maiol	hawekh	
61 kulawit	tsolióto	atkhétitkhl
62 wawákhp	tsépai	tkhlopétkhúak
63 taism	tsakóie	tkhlopétkhúak
64 shakhuim	tsabatkhl	kajitkhakakhl
65 emim	tsakhúektkhle	
66 hafia	itakhakh	
67 himimaj	ekapawaksoba	wéshkasun
68 itkmasichos	ekakhet	tutúsh
69 wáku	wekhkhatahet	ndakéahúakatahiata
70 puoi	tkhliképa	bikhlúad
71 temyu	tkhlikákhwal	kataóbod
72 ilukaha	oipéki	ndak
73 knah	tkhlikékwá	tabúak
74 tahash	ikápa	kokhó
75 watash	eleé	
76 iteaksh	wektwa	topwákh

<i>Familias.</i> <i>Langages.</i>	IV. ALGONQUINS. Blackfoot.	XXXII. SHOSHONEES. Shoshoni.	XXIII. SALIS. Flathead.
77. River	nihilahta	pépa	tabiatekwa
78. Lake	omyakukimi	pikau	stkhilbutekwa
79. Valley	akétekoi	paun	stsanitak bókéku
80. Hill, mountain	maataki	tuawí	suimokhwa
81. Island	mené	pahámar	tahiwénekwá
82. Stone	okhkótókja	limpi	zahensh
83. Salt		wavi	kitukhtahint
84. Iron	míkkámi	tempiu	okolém
85. Tree	místáts	shiwí	etshíta
86. Wood	místáts	wapi	lokhwá
87. Leaf	nípísta	nannga	píetákhikhi
88. Bark	oh tokés kin sase (M.)	oknítsang	rahítelekhu
89. Grass	mah too yáse (M.)	núhwa	sepolekhu
90. Pine	pah toks (M.)		saatak wíkhípa
91. Flesh, meat	chákítáyi	shíbru	skáiktsáhi
92. Dog	imítáts	shári	khákhítsáts
93. Buffalo	eníwa		státsátsáh
94. Bear	kéio	níra	otkhítámka
95. Wolf	mákoil	shínawí	státsáts
96. Deer	bepásto	maráts	tuólekhu
97. Elk	ponokáo	paráts	akhátséks
98. Beaver	kikrátsékts		skáláts
99. Tortoise			spétsákhwákus
100. Fly		múpo	khámátsáhtsáts
101. Mosquito		muawí	stétsáts
102. Snake	kinéksáts	tukhúts	etsháh
103. Bird	píkáts	pákhina	stákh wákh wáshsh
104. Egg	oh wáts (M.)	hupáhwí	ótsáts
105. Feathers		wáshia	spum
106. Wings		káts	skátsátsáts
107. Duck	si átses (M.)	tsákháts	stákhkhóts
108. Pigeon	pis píts tsá (M.)		khótskhótséts
109. Fish	namén	pághéts (T)	státs wíkhí
110. Salmon		skáts	sumtkhítsh
111. Sturgeon			tsátsáts
112. Name	onístáts	háwí	akwéts
113. Affection	tákorótsáts	níkhíwá	khámátsáts
114. White	spíts	tsáhwáts	tsákh
115. Black	síkímín	tuwít	tsákhwáts
116. Red	míkíts	ángkáwít	tsáwít
117. Blue	có mó ná (M.)	shékwéts	tsáwít
118. Yellow	oh tsé kó (M.)	wápit	tsáwít
119. Green	kumúts (T)	shákwáts	tsáwít
120. Great	omáksím	páts	khwátsáts
121. Small	píetákwí (T)	tsátsáts	khúkh wátsáts
122. Strong	punátsáts	shíkháts	tsáts
123. Old	spíts	tákhátsáts	pókhpókhóts (aged)
124. Young	sátsómplú	tsáwátsáts	skátsótsáts
125. Good	háts	tsátsáts	kháts
126. Bad	pátskéts	tsáts	tsáts
127. Handsome	máts tsé áts (M.)	tsátsáts	kháts
128. Ugly	páts tsé áts (M.)	tsátsáts	tsátsáts
129. Alive	tsáts tsé áts (M.)	tsátsáts	khwítáts
130. Dead	tsáts tsé áts (M.)	tsátsáts	khúts
131. Cold	tsátsáts	tsátsáts	tsáts
132. Warm	káts tsé áts (M.)	tsátsáts	kwáts
133. I	nístáts	tsátsáts	tsáts
134. Thou	tsátsáts	tsátsáts	tsáts
135. He	wístáts	tsátsáts	tsáts
136. We	kétsátsáts	tsátsáts	tsáts
137. Ye	kétsátsáts	tsátsáts	tsáts
138. They	wístátsáts	tsátsáts	tsáts
139. This	tsátsáts	tsátsáts	tsáts
140. That	tsátsáts	tsátsáts	tsáts
141. All	tsátsáts	tsátsáts	tsáts
142. Many, much	tsátsáts	tsátsáts	tsáts
143. Who	tsátsáts	tsátsáts	tsáts
144. Near	tsátsáts	tsátsáts	tsátsáts

XXIV. SAMAPTIN. Nas Percé.		XXVI. CHINOOK. Lower Chinook.	XXI. WAKASH. Newiten.
77	pikən	webətkhɪ	
78	hiwənsə	ikəkəkɪletkh	
79	pəkəbəl	nəiəkəkə	
80	həotəkəm	ipəkəkəɪ	ndotəhə
81	wəmə	tkhɪletkh	opətəhəkət
82	tiəbəl	ikəkənək	tənətəkək
83	kətəwəkənəh	tkhɪnpekə	
84	kənɪ	əkewəkəkə	
85	ləulikt	ikhtəkəkəwətəkə	
86	həkən	əbətəkək	
87	pəkə	təpək	
88	pəkət	əkəwətəkɪhɪ	təkəkəw
89	nəkəkək	təpək	
90	ləkə	ikəkətəbətəkə	
91	nəkət		
92	nəkətəkən		
93		tkhɪkəkəkəkəkək	kəkətəkɪ
94	ləkə	məwən	
95	həkən	əkəkət	nəkɪm
96	tətəpəl	ikəkəkəm	kəwətəkək
97	təkəkək	iməkən	məkəkək
98	ləkəkəpəl	imək	təkəkən
99	əkək	əkɪkəkəkək	
100	ləkɪlɪw	opənətəkək	məkəkək
101	wəkə	əkənəkət	
102	wəkəkəkək	ikəkən	
103	wəkəkəkək	kəkəkəkək	kəkət
104	təkək	tkəkəkəkəkək	əkəkət
105	kəkək	təpək	
106	wəkəkək	əkək	tkhɪlpekəkəkək
107	kəkək	əkəkək	əkək
108	kəkək	əkəkək	
109	ləkəkək	ikəkək	nəkəkək
110	nəkəkək	iməkəkək	kəkək
111	wəkək	ləkək	
112	həkən	tkəkək	
113	kəkəkəkək	əkək	tkhɪlək
114	təkəkəkəkək	tkəkək	wəkəkək
115	təkəkəkəkək	spək	tkhɪləkək
116	ikək	ikəkəkəkək	
117	yəkəkək	pekək	
118	məkəkəkək	əkəkək	ikəkək
119	yəkəkək	ikəkək	kəkəkək
120	iməkək	ikəkək	ndəkəkək
121	kəkək	ikəkək	təkək
122	kəkəkək	ikəkək	
123	wəkək	ikəkək	tkhɪləkək
124	kəkək	ikəkək	wəkəkək
125	təkək	ikəkək	
126	kəkək	ikəkək	
127	həkək	ikəkək	
128	həkək	ikəkək	
129	wəkək	ikəkək	
130	təkək	ikəkək	
131	ikək	ikəkək	
132	wəkək	ikəkək	
133	ikək	ikəkək	
134	imək	ikəkək	
135	ipək	ikəkək	
136	nək	ikəkək	
137	imək	ikəkək	
138	imək	ikəkək	
139	ikək	ikəkək	
140	ikək	ikəkək	
141	ikək	ikəkək	
142	ikək	ikəkək	
143	ikək	ikəkək	
144	ikək	ikəkək	

<i>Families.</i> <i>Languages.</i>	IV. ALGONQUINS. Blackfeet.	XXXII. SHOSHONEUS. Shoshoni.	XXIII. SALISH. Flathead.
145. To-day	anukhka teistakóí	ughitahi	otníakhet
146. Yesterday	matuni	tama	epototóhhi
147. To-morrow	apenakna	itshu	khulip
148. Yes	e-mania	ush	oma
149. No	sha	narumoe	za
150. One	tokakum	shimtai	inukhó
151. Two	natokum	hwat	ami
152. Three	nihokakum	mauthit (?)	tebetkhlee
153. Four	temói	hwat shiwit (?)	mos
154. Five	nisitai	shismanah (?)	tal
155. Six	nako		takhan
156. Seven	kitakum		aspaí
157. Eight	naniab		hakum
158. Nine	piakak		khakhanómi
159. Ten	kipói	palmanah (?)	oyun
160. Eleven	make vit ke pó to (M.)		openahet
161. Twelve	nah si ke po to (M.)		ekhlesóí
162. Twenty	nataipix		eshópshikst
163. Thirty	nihépi		teekheliopanakst
164. One hundred	kipipi		nkhakain
165. One thousand	kipipoi		oopenikstakhan
166. To eat	tawotup	tikern	ikhlin
167. To drink	se mate (M.)	iwipi	enst
168. To run	pokais	tnacai	kmeteah
169. To dance	pás cáh (M.)	nikar	khweimntao
170. To sing	a nih kit (M.)	tinikwun	nkuném
171. To sleep	sioksu	ápal	itaoe
172. To speak	ipnyés	ampakan	kwulakwast
173. To see	nitónna (I see him)	punini	silein
174. To love	tab'oo malze man		khamentah
175. To kill	enitá [(M.)	kwáoiqthar	pulstom
176. To sit	apiu	karann	ikhliakuliah
177. To stand		waninn	tebilah
178. To go	istápot	shcut	nanikhia
179. To come	pókáepót	paiki	tukhwanta

D.

<i>Families.</i> <i>Languages.</i>	VIII. CATAWBAS. Catawbas.	XI. UCHES. Uches.	XII. NATCHES. Natches.
1. Man	yabrecha	cohwita	tomkuhpwa
2. Woman	teyah	wachnehung	tahmahí
3. Father	yahmosa	chitung	abáhnisha
4. Mother	yaxu	kitchunghaing	kwálneshoo
5. Son	koorewa	tsunung (my)	akwalnesata
6. Daughter	onewah	teyunung (my)	mabnoonoo [bes?]
7. Head	iska	pseotan	tomne apoo (man's)
8. Hair	gidang	ptasong	etene
9. Ear	doxu	oohchipah	ipok
10. Eye	beetoo	oohchee	oktool
11. Nose	eepeesoh	cohtemes	shamatu
12. Mouth	esomo	teahshee	heche
13. Tongue	heesomooch	cootincab	itsuk
14. Tooth	heeanp	teking	int
15. Hand	eckapseeah	keanthah	ispabe
16. Fingers	ekeseeah	coonpah	
17. Feet	bepapeeah	teitrah	hatpebé (sing.)
18. Blood	eset	waoe	itah
19. House	sook		habit
20. Axe	pot-tateerawah		ohyaminoo

	XXIV. SAHAPTIN. Nex Percé.	XXVI. CHINOOK. Lower Chinook.	XXI. WAKASH. Newitsee.
145	taka	akóótkhla	
146	watishkh	tsatukhikil	
147	watishkh	wekhe	
148	a	ekúá	óde
149	wátu	ke	wikíe
150	naks	ikht	tsakíwák
151	lapit	máksut	atikhí
152	mitát	tkhlon	wíyu
153	pilapt	lakot	mbó
154	pakhat	kwanam	sútsa
155	olaka	tákhám	mupo
156	oinápt	sunumáksut	atikhí
157	oinélat	knatokhikin	atikhíkwatkhí
158	kboita	kwaiist	tsanakwutkhí
159	potimpt	takhletam	tkhíákhwa
160	potimt-wakh-nakhs	tákhletam-kone-ikht	
161	potimt-wakh-lapit	tákhletam-kone-makust	
162	isáptit	makust-tkhíatkhí	
163	mitáaprit	tkhlon-tkhíatkhí	
164	putáplít	tsakamónak	
165	pútmshosh		
166	hípisha	abatkhíkháleba	khaóka
167	ipnákusba	tkhíákhábat	khorátsatkhí
168	wíákaisha	bákháneko	sútsahíatkhí
169	iwáshasha	bawatsk	khorátkhí
170	wangisha	amskalálam	
171	piumkaba	abaple	waitah
172	isúwkaa	kipalawal	tséwkséak
173	hakisa	búkhékat	nasatkhí
174	hatecisha	tukhéklia	wikítmáks
175	wap-ánu	umtkhíawa	kúkhshítkhí
176	wakhubáts	matkhíáit	tekwatkhí
177	usháta	matkhíóé	tkhíákhítkhí
178	kúsha	maie	watkhíákhítkhí
179	kum	máte	hatsáitkhí

D.

	XIII. ADAIZE. Adaize.	XIV. CHITTEMACHAS. Chittemachas.	XV. ATTACAPAS. Attacapas.
1	hasang	pautchebas	íol
2	quashake	kithia	níckib
3	kowanick	hineghie	shau
4	amanie	húille	tegn
5	tallehenne	hicheyahanhase	shka
6	quolainie	hicheyahankithia	tegu
7	tochake	kutle	ashhat
8	calatuck	kutteko	tsash
9	calat	urabache	ano
10	ansica	kane	wíl
11	wecocat	chicha	idst
12	wacatcholak	cha	katt
13	tonanat	hnene	nedle
14	awat (pl.)	hi	ods (sing.)
15	secut	mnachieatbie	nish
16	okinain (sing.)	mnache kitsat	nishagg (sing.)
17	nocat (sing.)	sanknutha (sing.)	lippel (sing.)
18	pehack	onipe	igpp
19	coochut	hanau	ank
20			

<i>Families.</i> <i>Languages.</i>	VIII. CATAWAAS. Catawba.	XI. UCHES. Uchem.	XII. NATCHES. Natchez.
21. Knife	seepah	eontchee	pybewiah
22. Shoes	weeda	teliah (mockasin)	poputee
23. Sky	wahpesh	houponng	naoookta
24. Sun	nootesh	ptao	wah (fire)
25. Moon	weechawa nootesh	chafah	kwaap
26. Star	wahpeeknn	yung	tookol
27. Day	yahbra	uckkab	wit
28. Night	weechawa	pahto	toowa
29. Fire	epne	yachtah	wah
30. Water	eyau	trach	koon
31. Rain	ooksoreh	chahk	nasuayobik
32. Snow	wauh	stahse	kowa
33. Earth	munno	ptaah	wihuh
34. River	eseah	tanh	wol
35. Stone	eedee		okk
36. Tree	yap	yah	lahoo
37. Meat	wedee-yoynde-e	colahnta	wintee
38. Dog	tauntaee	pteenh	wakkop
39. Beaver	chaupse	samkkeing	
40. Bear	nomah	ptaaka	too kohp
41. Bird	koching	paenna	shankoh
42. Fish	yee	potahoo	hena
43. Great	panktehara		lehkip
44. Cold	chebuh chara		triatkopana
45. White	saukehuh	quccah	hahap
46. Black	houkchuh	ishpe	tookokop
47. Red	sikechuh	tshuluh	pahkop
48. I	derah	'ta	inkehah
49. Thou	yayah		uhkebah
50. He	owah	coheetha	akoonkia (this how)
51. One	doponna	sh	wilahu
52. Two	naperra	nowah	ahweie
53. Three	namunda	nokah	nayetin
54. Four	putrepurra	talulah	ganooetie
55. Five	pukte-ara	chwanahah	shpelee
56. Six	dip kurra	chtoo	labooe
57. Seven	wasain-e-n	laichoo	ukwoh
58. Eight	lubboea	peefah	upkutepbh
59. Nine	wunchah	'lah'thkah	wedipkatepish
60. Ten	pechuna	'tthklahpee	akwah

E.

<i>Families.</i> <i>Languages.</i>	XVI. CADDOS. Caddoe.	XVII. PAWNEES. Pawnee.	VII. ARAPAHOS. Arapahom.
1. Man	shoeh	taneekah	
2. Woman	nutteh	teapat	
3. Father	aa	ateeah	
4. Mother	ehnah	ateerh	
5. Son	hinuuhatreh	peerontata	
6. Daughter	hinin nutteh	tehoorageelaha	
7. Head	dokunda	pakshu	
8. Hair	baat	oahn	hótamenéta
9. Ear	dahishta	atkaroo	shlah
10. Eye	déchisugh	keerenkoo	arathya
11. Nose	daswehangh	tehisshoa	huse
12. Mouth	dunehwacha	takaoe	och'ya
13. Tongue	hadehto	hatoe	étobit
14. Tooth	tonaugh (pl.)	haroo	uklakán
15. Hand	doebaugh	ikabeere	

	XIII. ADAIZE. Adaise.	XIV. CHITTEMACHAS. Chittemachas.	XV. ATTACAPAS. Attacapas.
21			
22			
23	ganick	kahickota	lagg
24	naleen	thimba	nagg
25	nachasot	panno	legidlemht
26	otat	pacheta	ph
27	nestach	wacheta	lggi
28	arestenet	timan	lagg
29	nang	teppo	cam
30	holcot	ko	ak
31	ganic	kaya	caucun
32	towat	nactepeche	adlemat
33	caput	nelle	né
34	gawichat	konostineshe	aconstichi
35	ehaska	nonché	wai
36	tanaek	conche	kagg
37	hosing	kipi	ogid
38			
39	enlawa	hacunoche	stigne
40	solung	thia	torlogot
41	washang	makche	iagghan
42	neut	hatekippe	ushik
43	locat	kasteke	tamps
44	hostalga	mehetineche	cobb
45	teslaga	nappechequineche	ianu
46	hitoua	pinoneche	oig
47	pechazat	utecheva	ue
48	hiesack	utietmhi	natt
49		hatehe	
50	nasicon	hongo	hannick
51	nabcas	hupan	happalet
52	nass	kalitie	butt
53	colle	meehechant	teets
54	tacache	huwa	nilt
55	seppacan	hateka	latet
56	pacubancus	micheta	paghu
57	pacunces	kueta	lukhuian
58	pacalicon	knicheta	teghuian
59	sickimih	heihitie	hemmiga
60	neurne		

E.

	XXII. KITURANA. Flatbow.	XX. WAKLATPU. Cayuse.	XXVII. KALAPUTA. Willamet.
1	tikhast	yóant	atshanggo
2	pétkhiki	pitkhikain	purmraike
3	titunia	pitet	ama
4	manie	penin	sinni
5	akhkátkhlis	wai	tawakhai
6	kárus (my)	wai	tahitapiusa
7	aklam	talsh	tamatkhl
8	akhoklam	tkhokomot	amotkhl
9	pakwant	taksh	pokta
10	akuklechl	hákamush	kwajakkh
11	akunikak	pitkhloken	unau
12	akutkhona	samkhaksh	mandi
13	watkhlupek	push	manutakhl
14	akunanis	tenif	póti
15	aki	epip	lakwa

<i>Families.</i> <i>Languages.</i>	XVI. CADDOS. Caddos.	XVII. PAWNEE. Pawnee.	VII. ARAPAHOS. Arapahos.
16. Fingers	daimbin	hashpeet	naha
17. Feet	danuna	naho (sing.)	nahatta
18. Blood	haaho	haitoo	berts
19. House	sabooogh	akkaroo	nehnun
20. Axe	konow		han'ares
21. Knife	kut		wahata
22. Shoes			
23. Sky	katsahab		
24. Sun	sake	shakaroo	asa
25. Moon	noeciah	pa	
26. Star	tsokas	opeereet	
27. Day	diako	shakoorooeshaireet	
28. Night	nubba	eerashnaites	
29. Fire	nako	lateeloo	
30. Water	koko	keetsoo	seim
31. Rain	cawiohe	tatsooro	
32. Snow	hehpakia	toosha	
33. Earth	wadat	araroo	
34. River	bahat	kattoosh	
35. Stone	seceeko	kareetkes	han n'i ka
36. Tree	yako		
37. Meat	konhonehto	keeshatskee	ahyan
38. Dog	datsesh	ashakish	ahlah
39. Beaver	toough		
40. Bear	noutresh	koorooksh	wusa
41. Bird	bunnit	leekootakoo	
42. Fish	batta		
43. Great	himi		
44. Cold	hehno	taipeechee	
45. White	hakio	latka	
46. Black	hadebko	katoet	
47. Red	hatehno		ben'atiyo
48. I	koktsai	ta	nistow (me);
49. Thou	nokahio		ahyan (pl.)
50. He	sehdehaugh		
51. One	kounaigh	askoo	
52. Two	behit	peetkoo	netbiyan
53. Three	daho	touweet	
54. Four	hehweh	shkeetiksh	yabnayan
55. Five	dihehkon	shseooksh	
56. Six	dnnkeh	sheekshabish	nekituckiyan
57. Seven	hisekah	peetkooesheshabish	
58. Eight	dousehka	touweeshabish	
59. Nine	hehwehchka	looksheereewa	
60. Ten	behnehaugh	looksheeres	netama

F.

<i>Families.</i> <i>Languages.</i>	XXIX. LUTAMI. Clamet.	XXX. SARTES. Shatic.	XXXI. PALAIS. Palais.
1. Man	hishottas	awat'koa	yatih
2. Woman	shuwats	taritei	orniswilseen
3. Father	kauktishap		waii
4. Mother	unkomplakp	miatikbi	latii
5. Son			ya'utaa
6. Daughter			lumauitaa
7. Head	nua	njak	lah
8. Hair	lak	ioakh	tiyi
9. Ear	nunmoxteh	isak	kwumustaa
10. Eye	klap	oi	ash

XXII. KITUNARA. Flatbow.		XX. WAHATPU. Coyse.	XXVII. KALAPUYA. Willow.
16	aki	épip	alakwa
17		tish	puúf
18	uanamo	tiwesh	méenu
19	akitehthlámam	nisht	hammeih (— fire)
20	akotakhl	yengthokinah	khseshtan
21	akutasnakhl	shakt	bekemistáh
22	tklanis	tsitkhlo	akunóf
23	akikhlmotat	ndjalawaia	amiank
24	natanik	huuwish	ampian
25	tshikhlmotat-natánik	katkhlop	stap
26	akikhli-nohos	tkhikhliah	atominank
27	kallianiat	ewewis	emotom
28	tshikhlmuit	flalp	atitshikim
29	akinakoko	teteh	hammóih
30	wod	iskkiniah	mampuka
31	wasokokwukhl	tshytkhlmítang	ukwis
32	aktkhlu	poi	nukpeik
33	amak	ingah	hankhalóp
34	akin-mitok	tushmi	mantal
35	ookie	apit	andi
36	tshakhl	tsukhli	hantawakhl
37	akotkhik	pitkhli	ambók
38	khsáikhitsin	háapang	mantal
39	sina	peka	akapi
40	nipkwo (black)	limeaksh	alotufan
41		tshiyiwa	pókalfana
42	khórit	wirish	
43	kawitkhli-kaana	yaúmas	pal
44	kokoone	shunga	pangkaffli
45	kamokwukhló	tkhaktkháko	kommóu
46		shkupékkúpa	maiesum
47	kaotakot	tskaitlakaita	tshal
48	kamin	ining	tshii
49	ninko	nika	máha
50	ninkois	típ	kak
51	oke	na	wáan
52	as	leplin	káan
53	kérs	matoin	upshin
54	káta	pipang	tsope
55	yikho	táwii	húwan
56	umisa	nóina	laf
57	witakhlis	nóilip	pabinimna
58	kikhuta	nóimét	kóomna
59	kaikita	tanáiaiabimbin	wanwaha
60	itu	ningitelp	tinifia

F.

XXVIII. JACONS. Jacons.	II. KINAI. Kinai.
1	kaht
2	tkhleka
3	swata
4	tkhla
5	sumasla
6	
7	tkhlokia
8	sintkhlosis (my)
9	kwolkwata
10	akihia
	teenna
	ssico
	stakta
	stana
	sijsa
	swaza
	sisaggo, ashaggo, Sita.
	szugo
	szaga
	szaga

<i>Families. Languages.</i>	XXIX. LUTUAMI. Clamet.	XXX. SASTES. Shashla.	XXXI. PALAIS. Palaika.
11. Nose	pehish	éri	iamí
12. Mouth	shumv	an	ap
13. Tongue	páwas	ebéna	ipili
14. Tooth	tut	ítanu	ítaa
15. Hand	nsp	apka	il
16. Fingers	kopó	akhsuk	il
17. Feet	pats	akwes	taiko
18. Blood	poita	ime	éhati
19. House	lataash	uma	tillita
20. Axe	lakótaiak	aniakidl	shakotkie
21. Knife	wate	atirni	shatikh
22. Shoes	wakahn	atsakh	kelaia
23. Sky	patshab	wakwe	usebala
24. Sun	apas	tsore	taul
25. Moon	wokankash	aphátan	taul
26. Star	tebol		tsamikh
27. Day			mutikhái
28. Night	pehin	apka	mahaktaa
29. Fire	ólóka	imá	malis
30. Water	ámpe	átsa	as
31. Rain	kutólahas	ótahik	enwasétsa
32. Snow	kais	khae	ti
33. Earth	kaela	tsarak	kéla
34. River	kokal	asturahétsa	atsama
35. Stone	kotai	ítan	ulíhti
36. Tree			tsáushia
37. Meat			tsuhuts
38. Dog	watsak	hápeo	watsakha
39. Beaver	pum	lawai	pum
40. Bear	tokunka	haukidai	lokboa
41. Bird	ákak	tsarakkh	lanítsa
42. Fish			alish
43. Great	móónis	kémpe	wawá
44. Cold	kátaks	isikato	watse
45. White	pálpal	ítairi	tiwiti
46. Black	pospodi	ephotárakbe	haktshai
47. Red	taktákuli	ékhiti	táhhákbe
48. I	no	íáa	it
49. Thou	i	mai	pikhhá
50. He	bot	hine	pikhhá
51. One	nétehiik	tsátsmu	umia
52. Two	lapit	hoka	káki
53. Three	utanj	hatski	úúhti
54. Four	wonip	irahsia	hatami
55. Five	tonappi	étahs	molosi
56. Six	nakshihuptans	tahais	
57. Seven	tapshihuptans	hokáikinis	
58. Eight	ndanekihuptans	hatsikiri	
59. Nine	natsaiakish	kirihariki-ikiri	
60. Ten	tsunip	etséwéi	hamsh

XXVIII. JACOBS.		H. KINAT.	
Jacobs.		Kenai.	
11	tasina	tsanalleetga	
12	khai	asusok	
13	talein	steeine	
14	stahetiki	okoiutli	
15		skona	
16	kwothl	slutska	
17		skajelina	
18	pouts	kootsukhin	
19	taitaakia	kamin	
20	pakhtin		
21	kiai	kisaki	
22	skanniksemlota		
23	laa	yoyan	
24	pitskom	channoo	
25	okhon	liskannu	
26	tkhilt	sein	
27		tschan	
28	knebe	tlak	
29	kilita	tauz-ee	
30	kilo	thunagalus	
31	tkh lakou	alkou	
32	kimit	asach	
33	onitstah	altren	
34	haic	kutou	
35	kalih	fulchuiki	
36		tsbalsooya	
37		kut-chonna	
38	takeh	thika	
39	kaatsilawa	kouja	
40	kotimamo	altassi	
41	kakwaa	kakassh	
42		thoka	
43	baihaiat		
44	kwoutukhanu	ktokchuz	
45	kwakhalt	talkei	
46	kaisht	taitashe	
47	pahalat	tigaltul	
48	kone	su	
49	nikh	sat	
50	kwontai	hboon	
51	kham	zelkei	
52	tsokhwakhwa	tucha	
53	pusnikhikha	tobchko	
54	tsnikhatsokhwahia	tenki	
55	holakhikha	zielalo	
56		kasheni	
57		kanzeogi	
58		lakolli	
59		lehezetcho	
60	tsuigestu	kojushuu	

G.

Families. Languages.	XVIII. KOUTISCHEN.		XIX. SKITTAGETS.
	Konlischen.	Sitea.	Queen Charlotte's Is'd.
Man	ka	chakleyh	keset
Woman	achlchet	shavot	kna
Father	ia	kyesh	agen bonghi (my)
Mother	achtla	aklee	oughi
Son	achgit		tinekü eethlan
Daughter	achsei		tinekati ana
Head	nchsan	shaggoo	
Hair	nchschan	kochahoo	cuta
Ear	achkuk	kakook	
Eye	chawak		
Nose	ka che low	kaclu	oouu
Mouth	achke	kake	
Tongue	tutlejut	katnoot	
Tooth	achju	knoob (pl.)	
Hand	nchtschin	kacheen	
Fingers	nchkumü	katlek	
Feet	ikus	kshoo	
Blood			high
House	an	heat	natee (Dr. Tolmie)
Axe			cutelsojo
Knife	tilta		yeidx (Dr. Tolmie)
Shoes	tull		
Sky	kuwa	huale	shing (Dr. Tolmie)
Son	kakan	kakkaan	tane
Moon	tua	teew	kuha
Star	kutchenaga	kootahanaha, (pl.)	kaaldha (Dr. Tolmie)
Day	kujuwaja		koondlain (do.)
Night	cha-anua	tsat	
Fire	kan	haan	tainoo
Water	in, bill	ieeu	hunte
Rain	esiu	sewa	tuil
Snow	tlet	kleyt	tull hatter (white rain)
Earth	tiekak	sleekootanee	lander
River	intak	hateen	
Stone	te	te	tlaha (Dr. Tolmie)
Tree	djugga	shaak	kyet (do.)
Meat	tligi		
Dog	ketl	keklo	hab
Beaver			txing (Dr. Tolmie)
Bear		hoeta	tunn
Bird			hateet (Dr. Tolmie)
Fish	chat		
Grass			
Cold			whoo
White	tlejetecheti	kletyuhete	hatter
Black	tuschichette	toochahete	stongale
Red	kan	hanahete	much
1	chat		cagen
Thou			tinkyah
He		yonta	achest
One	tlek	klek	akwansun
Two	tech	teh	sting
Three	noz	notak	thkoonweel
Four	taakna	tackoon	atunuu
Five	kejetschia	kecheen	kleith
Six	kletuschn	kotooshoo	ktionell
Seven	tachate uschu	tahatonschow	taekwah
Eight	nesket uschu	neetakstooohoo	stansanghah
Nine	kuehok	kooshak	klatskwangha
Ten	tchinkat	cheenkaat	klath

H.

Family. Languages.	XX. NAAS.			
	Hailan.	Haeeltzuk.	Bilhechoola.	Chimneyan.
Man	numas, wisin	poonunum	Dimedah	txib
Woman	kanum	kanum	kunnum	unsach
Head	hete			
Hand	haisai			
House	koaka	gook qua	shmoel	awaalip
Knife	hoinum	uchanum	teech tah	Wih-a-jeesh
Shoes	kaiuakh			
Sky		loo-wah	sho nooch	such ah
Sun	thlikshuait	tish ee oo alla	skin nuch	kium uk
Moon	nuakh	nohes	tiooki	kium ugumantuk
Star		toto ah	nich meekil	pinlat
Day		quakila	skoonook	tzeichoo-ah
Fire	tauhila			
Water	wawm	oamp	kall ah	see
Rain	yukhwa	youk qua	abhoo lai	waash
Snow	kwispiah	naie	kai	moaka
Stems		teisum	quik tolonick	loap
Tree		tiooh	ushtin	kunaglion
Dog	wata	watz	watz	hass
Beaver	koolan	cooloun	cooloun	aktzoalh
Bear		tiah	tiah	oik
Bird		tzoo	tzeetzepei	tzots
Grass	kaikias			
I	nuka	nookwa	untah	newyo
Thou	ksu	usho	eno	noone
He		caigh qua	tzehtil taigh	qua
One	manuk	numook	smoah	kaak
Two	maluk	malook	dhilmoash	tojezat
Three	yukhtuk	yoo-took	ushmoash	gundh
Four	mouk	mo ak	moash	tuch-aul-puch
Five	akiak	ake owk	tzaiach	kuhdhoonis
Six	ketkhiouk	kat-lowk	tuch aulh	coolth
Seven	makhlee	mai tilowsk	kul-moash a-num	topeh-ooaldh
Eight	yukhtukhsimaa	yoo-took-oweh	us-moash-a num	kundh
Nine	mumiskwinea	ma ma-neeah	keesh-moa num	kusta moas
Ten	koljaluun	hakhlisukam	nikas	kippio
Child	hapk	shashon	munna	tikoole
Chief	khaimas	semasah	talto nich	smo ik it
Canoe	kilwa	kilwa	chla luvt	paal
Salmon	maikh	somah mesh	shi milk	hone kustamoans
Small	khaouls	howlal	ky koo tie	tzoushik
Strong	shisuwak	ghilowk	til	kat kid
Deer	kakbuda	ka meilah	shoopanis	wad

L.

Family.	I. Eskimox.			
	Greenland.	Kotzebue's Sound.	Tschukchi.	Kadiac.
Man	innok	tsak	juk	shuk
Woman	annak	oolea	aganach	agunak
Father	attatak		atta	adaga
Mother	annanak			annaa (L.)
Son	ernek	oowingelaka	ripaka	
Daughter	panik		pannica	
Head	niakuk	neakoa	nakok	nakok
Hair	uyak	nuchet	najak	nojet
Ear	suit	tshee otik	tscoimtak	tsijon
Eye	irak	cerrika	ik	inalak
Nose	kingak	kingar	chinga	kinga
Mouth	kaunek	kaunecak		kanok (L.)
Tongue	okak		kandak	agook
Tooth	krutit (pl.)	kootay	gntyk	ubdyt (pl.)
Hand	arkseit	arge-gei	talichka	oebet
Fingers	tirkorit	tamaridreh	nibanka (sing.)	swanna
Feet	tsakat	idluguy	iguk	iggu
Blood		sook	anku	auk
House	iglo		mantaak	oolak
Axe		atti-ghimook	kalkulina	
Knife	savik	seguetak	tachepak	kamelak
Shoes		pine yuk	kanqut	
Sky	killak	keisyak	kuak	kelok
Sun	ajut	neya	shekenak	agadak
Moon	anningat	tsokuk	tsankuk	toogebda
Star		obloaret	igalgetak (pl.)	madzak (L.)
Day	nilit		aghyrak	aganok
Night			onjuk	onjak
Fire	ingnek	ignuek	uusak	kuok
Water	imek	eenak	mok	moos
Rain			septachuk	kedok (L.)
Snow			anru	anju
Earth	nuna		nunna	nuna
River		koook	koik	koik
Stone	ujarak	angmak	agach	ymak (L.) (L.)
Tree			onahtschik	kabohak, tsbalakua
Canoe		kaiyak, oomeeak	kajak, agniyak	paikyak
Dog		kenma	kynyak	pihia (L.)
Heaver		kecyeeak		
Beard		tsuuk	kainga	paqoona (L.)
Bird		tinguocark		
Fish		klialoo	ssaljuk	
Great			kanqok	
Cold		kairanga (ing)	nanjukatok	
White		kowlook (cloth)	katulge	katogalee (L.)
Black		kanqook		toonboosalee (L.)
Red			kakluk	kawychly
I	uanga	wonga	wanga	
Thou			jeypak	
He			tana	oona (L.)
One	attansek	adaituk	atomek	attsodea
Two	arlak	cepak	malqok	ascha
Three	pingajuk	pingyook	pinajat	pinga-wak
Four	sisaniut	tsatumet	istanat	etamik
Five	tellimat	taleema	tathant	talimik
Six	arboook	aghwinnak	atashimagigin	aghoijijon
Seven	arekh	nehwinnaghipagha	malqok	malchonglin
Eight	arboek pingasut	penniyook	pingaju	entjjuu
Nine	kollimloet	sectoma	aglanlik	kulu'ghnen
Ten	kollit	tadlerna	kulle	kulen

III.

Family. Languages.	III. ATHAPASCAN.		
	Chepnyana.	Tlanakani.	Unikwa.
Man	dinnie	khanane	titsun
Woman	chequois	tseskeia	ekhe
Father	ziyah (my)	mama	stanli
Mother	ziyah (my)	na	wala
Son	ziyzy (my)	sik-ute-teitsu nuala	shashai
Daughter	zilengai (my)	sik-u-tankaisle	ete
Head	edhne	khustema	sugha
Hair	thiegah	khotsusa	sogha
Ear		khotskhe	thigha
Eye	nackhey	khonakhai	ngabe
Nose		khoinema	mintabesh
Mouth		khokwaitshale	ta
Tongue	edhn	khotsbukhishitkhltaha	laom
Tooth	goo (pl.)	khotsiakatatkhoia	uo
Hand	law	khola	shla
Fingers		tkhishakhatasa	shiatene
Feet	cub (sing.)	khonkbastakai	shkbe
Blood	dell	tutkhi	shtalo
House	coona	kantakh	ma
Axe	thynle	kattasn	senatl
Knife	bem	tekhe	palimi
Shoes	kincheo	ke	kbe
Sky		ia	ishabi
Sun	sah	tause	sha
Moon	sah	tause	ighaltai
Star		khantkhikante	khaitabe
Day		kloakst	shidli
Night		tkhikane	khutli
Fire	coona	to	khong
Water	lote	natkakh	tkho
Rain	thucnelaw	yakha	natkhibika
Snow	yath	nee	taikhliyitkhi
Earth		tseske	nane
River	leme	tsheio	khante
Stone	thaih	tsheio	seh
Tree		tskwa	sintabanata
Meat	bid	tsatun	isang
Dog	shengh	tkhlin	tkhli
Beaver	sah		sha
Bear	saw	tsuluna	shtetkhahn (black)
Bird		tsause	naake
Fish		wane	mintahaghe
Great	utabaw	kwatsakhtowa	skais
Cold	edgab	iteain	hatskai
White		tkhione	haidji
Black	dellzin	tkhiteohwe	tskhi
Red	deli coase	ak	shi
I	ne	nenak	na
Thou		tsnak	hatake
He		tkhie	sikhla
One	siachy	natake	nakhak
Two	naghr	tage	tak
Three	tagy	tsuthe	tsutshik
Four	dengky	tsukwain	shwulak
Five	saociachee	kwastanaba	wathane
Six	alkitarhy	shoetshita	hoitshi
Seven		tsahnwaha	nakanti
Eight	olkideingby	tkhlewoet	sikhiantli
Nine	cakinabnothua	kwoneshia	kwunega
Ten	canoibna		

N.

Family. Language.	IV. ALGONKINS.	
	Kathlamet.	Old Algonkians.
1. Man	esqui	ahimnap
2. Woman	nootawie (my)	ichwah
3. Father	akawe	nonsey (my)
4. Mother	eqnais	ningai (my)
5. Son	netank (my)	nitians (my)
6. Daughter	istegwen	oosikwan
7. Head	mistekiah	lmis
8. Hair	otoowegie	oosinahik (pl.)
9. Ear	eskinoch	yash
10. Eye	miskewon	ooton
11. Nose	peeton	tibit
12. Mouth	otayenee	
13. Tongue	meepit	
14. Teeth	meheschee	
15. Hand	meheschee	
16. Fingers	mest	
17. Feet	mithcoo	mishweh
18. Blood	wiakagan	wikiwam
19. House	shegygan	agkwet
20. Axe	mokoman	mokoman
21. Knife	mocasin	mackimin
22. Shoe	keemck	spiminkawie (land above)
23. Sky	pestin	kias
24. Sun	tipiscopeim	debikat kikh (night sea)
25. Moon	atlack	alank
26. Star	kesecow	okonogat (a)
27. Day	tipisow	debikat
28. Night	seqnitin	akootay
29. Fire	sepee	xipi
30. Water	kemeroon	kimiwan
31. Rain	mispoon	
32. Snow	akke	ackey
33. Earth	sepee	xipu
34. River	awene	asin
35. Stone	mblick	metoch
36. Tree	wetas	wias
37. Meat	attim	alim
38. Dog	amiak	amik
39. Beaver	muakqaw	mackwah
40. Bear	peasie	piley
41. Bird	kenosee	kikons
42. Fish	mehnacawaken	kitchi (powerful)
43. Great	kiesin	kikatch (to be)
44. Cold	wabisea	wabi
45. White	kuskatawow	mackstey
46. Black	meseoh	miskwey
47. Red	witla	nir
48. I	kitha	kir
49. Thou		wir
50. He	pauck	peygik
51. One	nabhdh	niosh
52. Two	nabto	niaswey
53. Three	nayo	neyoo
54. Four	nayahnan	nahrin
55. Five	negoto abak	nigootwasoo
56. Six	toboccoop	ninahwasoo
57. Seven	isunaco	nisawaso
58. Eight	kagitemetatut	shengasoo
59. Nine	mitatut	mitasoo
60. Ten		

N.

	East Chippewaya.	IV. ALGONQUIN.	Ottawa.	Potowatamien.
1	niasse		anial	neemh
2	eqnoy		uqne	ukquah
3	noey		nos	nomh
4	ningay		gâchi	nenne
5	jaak		kwi	n'gwih
6	indougway		lanis	
7	shtergoan		ondip (him)	winah
8	lwy		nias (my)	
9	nondawar		tawag	neekwah
10	winkinky		tehhijik	otuchase
11	yotoh		tohaje	indoon
12	meesey		tône	
13	ooten		tanapian	wehit
14			put	neenich
15	armochee			
16	argaho		nipinokneahitah	
17	ozst		st (sing.)	neut (sing.)
18	niquty		niakwi	neqneh
19	wigwan		wigwan	wigwan
20	warcokquoite			
21	mokoman			
22	mankiesia			nitok
23	oohpon			
24	geesmesey		kis	keeh
25	geezus		tipaki kis	keeh
26	asunk		anang (pl.)	anang
27	ogonnegat		kijig	
28	debbikal		lipik	ootah
29	sootay		sahkote	neber
30	nippes		nipleh	
31	kimmeewax		kimiwan	gaha
32	going		agde	eeber
33	malloyash		aki	
34	aepee			
35	asuh		wiyas	
36	meeteok		sumokatawhia	
37	wesam			
38	anim		makwa	
39			benaisewag (pl.)	
40				
41				
42	kegoace		kimenah (subst.)	kehtinkahyah
43				
44				
45	wartahcar		mokhtuwah	
46	meekooty			
47	miequally			
48	nin			neenah
49				keen
50				wesee
51	payhik		ningotchau	n'godto
52	neesh		ninjaw	neah
53	neeswoy		njawa	n'swoah
54	neon		niwia	neapen
55	naman		nanau	n'yawana
56	nequtwoeswoy		ningotwaswi	n'godto watto
57	neeshwoeswoy		ninjwaswi	neuk
58	swoeswoy		nichwaswi	schwaswo
59	shangoswoy		shang	shoekto
60	metoswoy		kwetch	metato

D.

Family. Language.	IV. ALGONKINS.	
	Sheshapootah.	Scottes.
1. Man	napew	naboch
2. Woman	sobqow	schow
3. Father	notowee (my)	nontowwee (my)
4. Mother	nakhhowee	neekowwwee
5. Son	nomeneechen	moonichen
6. Daughter	natauish	meentaouish
7. Head	stoukooan	oostookoohan
8. Hair	peeshquahan	teepishquohan
9. Ear		
10. Eye		
11. Nose		
12. Mouth		
13. Tongue	tellenee	relaylenne
14. Teeth	mepeetbet	wee ee pich
15. Hand	teetachee	meetachee
16. Fingers	daihoooh (sing.)	namelacheech
17. Feet	neeshetch (sing)	meebetch
18. Blood		
19. House	nihtook sobweseehoa	tookheseehwa
20. Axe	makataahke	chimboutahgaa
21. Knife	moncomang	monkooman
22. Shoes	monshiwasten	mateshun
23. Sky	wahshiqaw	walk
24. Sun	beeshing	beeshoon
25. Moon	toposhabeshung	teepeeshowbeshum
26. Star	jobokata (pl.)	woochahyatak (pl.)
27. Day	jeeshikon	jeeshikow
28. Night	tapishkow	tapuhkakow
29. Fire	schootoo	schkootow
30. Water	nepee	nepee
31. Rain	soomooohan	shooahsoomoon
32. Snow	khoon	koonah
33. Earth	shakawshoo	mishooewemmah
34. River	mooshkoon	sheep
35. Stone	shenee	shenee
36. Tree	mistookooh	meahtooquah
37. Meat		
38. Dog	attung	attabb
39. Beaver	ahmishke	
40. Bear		
41. Bird		
42. Fish	nameshish	nameah
43. Great		
44. Cold	kwadi	
45. White	wahpou	wahpou
46. Black	melepon	willeepou
47. Red	mishquow	maykepon
48. I	neele	locotange
49. Thou		
50. He	weele	
51. One	pahn	payook
52. Two	nishoh	neesh
53. Three	nest	mesht
54. Four	naos	nowh
55. Five	napalatech	pataytach
56. Six	payonmashwang	paymahchwaa
57. Seven	nishouah	neeshonashoo
58. Eight	nestaah	nesto hashang
59. Nine	naousho	nawahashang
60. Ten	pojouglong	payahookoono

O.

	Miensee.	Etchemina.	Abenaki.
1	tahinem	okitap	seetanbe
2	epit	apat	phkipen
3	natoh (my)	mataqu	nemitsogus (my)
4	kich	nikos	nigwas (my)
5	onqnece	n'kos	nmemmann (my)
6	onlonse	n'sous	pedus (my)
7	anidik	neneagan	metap
8			napiessumar
9	hadongan	chalkae	netanaku (my)
10	posogal	n'sisool	teesiku
11	sochickan	nitou	kitan
12		neswone	nedun (my)
13	willenonk	nyllal	miraau
14	wabidul		nepit
15	kipiten	petin	negetai (my) Y
16	clooguan		neretai (my)
17	skkwt	n'sit	nesit
18	moldan	posagan	bagakkagan
19	wigwom	wannoji	wigwom
20	tomahagan		temhigan
21	sagan		nt'sokwaku (my)
22	wianjowonkanan		nkesen
23	moonhkoon	tumoga	kizaku
24	nakaaget	asptaisak	kizak
25	topanokoushet	khos	kisous
26	malakokoonloh	paizam	stantessu
27	naakok	kisook	kizekka
28	piakkeanukh		kizuku
29	bwkiew	akut	akutai
30	chabuguan	somnquone	nabi
31	ikfashak	suklan	wagherain
32	wastoch	warot	psan
33	keeshwajowouyaw	takomiqu	ki
34	chibuk	sepe	sips
35	kandan	panapqu	nimangan naz
36	usepejeseh	spas	abani
37		wiyos	skewaka
38	lemseh	lumose	and- <i>ay & m. u. d.</i>
39		quanbendit	temakue
40		mowene	awessuz
41	lohipehit	cipais	siyik
42	hemetah	n'mays	names
43	mechikik	nukamkiqu	nekunakani
44	wakayo	nedanbedatai (I am)	
45	wabeg	wapiyo	wanbighenur
46	m'katsay	muk seiwayo	mkazowigben
47	megoug	maiquaik	mkwighan
48	nij	nel	
49	kil		
50	negenm	wurt	pezoku
51	neot	naiget	ois
52	lalu	nes	naw
53	chicht	nihl	iew
54	nex	naho	barwauks
55	nan	nans	negudans
56	achigopt	gamatchine	tanbawau
57	stamoguenok	ahobegannak	ntrauek
58	sgomolchit	okemolchine	nurnai
59	pechkenadck	asquenandake	niars
60	ptolu	neqdenk	

P.

Family. Language.	IV. ALGONKINS.		
	Massachusetts.	Narragansett.	Mohicans.
1. Man	wokstomp	nais	weemasaoo
2. Woman	mitamwoose	squaws	p'ghainoom
3. Father	noosh (my)	oh	ogban
4. Mother	okaash	nokaen	okgan
5. Son	naunon	stumuckiese (my)	w'tijonmaa
6. Daughter	nultonis (my)	nittaunis (my)	otocaa
7. Head	puhkuk	sppaqnonip	weenis (his)
8. Hair	meenuk	wobeek	wepauken
9. Ear	wehtanog	waltovrog	towahque
10. Eye	wuakesuk (pl.)	wuakesuck (pl.)	ukemjan (his)
11. Nose	watoh		okewon
12. Mouth	nuttoon (my)	waltone	otoun
13. Tongue	meenannob	weenal	
14. Teeth	meepit	wepit (his)	weposton
15. Hand	nutcheg	wunnichete	oanbkan
16. Fingers	mnpnhkukuanifch-		catelquonejan
17. Feet	wuaset (his)	wuasetta (sing.)	neutin
18. Blood	ooqbeenk	miahque	poaghtkan
19. House	watu	wetu	wookuwahn
20. Axe	toqkuk	chichegin (halber)	tunnabecan
21. Knife	etouaonkash	ohangock	schican
22. Shoe	mohkisonah	moocuinam	mkisin
23. Sky	kewak	keewak	onawuk
24. Sun	nepanz	sippawus	kremogh
25. Moon	nepaubdt	muncpanahat	nepanbeek
26. Star	annogs	anockqa	anauqanah
27. Day	keekod	wompan	wankamauw
28. Night	nukon	tappao (to'ard night)	t'pookh
29. Fire	nootan	squtta	etanw
30. Water	nippe	nip	nhey
31. Rain	okannaak	okenum	lbocknans
32. Snow	koon	sochepo	manneeh
33. Earth	ohke	ake	akek
34. River	seps	seip	sepo
35. Stone	hussen		thanesumku
36. Tree	mehtug	mintock	mehlok
37. Meat	weyans		weeas
38. Dog	annm	annm	n'dijan (?)
39. Beaver	tumnuak	tumnoek	amiquo
40. Bear	moq		mquoh
41. Bird	peakes	speehawog	techtimis
42. Fish	nahmos	samanus	namllsuk
43. Grass	masik		machak
44. Cold	tohkol (it was)	tabkow	thanthu
45. White	wompl	wompeu	wanpueek
46. Black	moo-i	mowean	n'alkk-p'oh
47. Red	miahque		m'ohgeju
48. I	neen	neen	neeh
49. Thou	ken	ken	kesh
50. He	noh	owo	uwob
51. One	neqt	nquit	ngwitiuh
52. Two	neese	noome	neeh
53. Three	niah	niah	naghtah
54. Four	yaw	yoh	nanwob
55. Five	napanna	napanna	nuron
56. Six	nequataah	qnta	ngwittas
57. Seven	nesausuk	enada	tepoowas
58. Eight	shawouk	shwouck	ghasobh
59. Nine	paakougon	paakugit	nanneeweh
60. Ten	paik	ptuck	mtankit

P.

	Long Island.	Miml.	Nanticoke.
1	run	leeno	wohacki
2	sqnah	ochquen	soqsabique
3	cwa		noweza
4	cwca	goy (my)	nieque
5			nucksqosh
6			hunitawa
7	okeyunno	wilustica	nulshammon (the)
8	wesh	weicheka	see-eaquet
9	catawoe	wichtawak	nucktowbuck (my)
10	skano	wuchginguall	nuckakeequet
11	cochóy	wichjwos	sickakeen
12	cutlah	w'doon	huntowey
13		wilanno	seeannow
14	keput	wichpít (sing.)	seeput
15	contchi	wanachk	nolouta
16	cutchewa		namiabka
17	cnased	wichgat	sist
18		mochonon	yaeknuckque
19	werebo	wichgoom	yonckhuck
20	chekonas	tumbica	
21		maohken	schmounahack
22			meckisut
23	keish	giachneh	moosemaqut
24	haquequa	ipabump	sqiqneqpeahquak
25	sepa	alank	atupquonihaque
26	maqosac	geschku	perniije
27		tpoebou	nucottcquon
28		tenden	woopquaw
29	suht	niby	tunt
30	rup	sochhallaan	nip
31	sukeron	guba	wemiow
32	sochpo	schgi	qbono
33	keagh	sign	shkoe
34	seepna	schait	pauptnekquah
35	sun	nichtuk	kawscop
36	peuys	ojooe	peluicque
37	wewows	alom	peemantah (bog mmal)
38	arum		naiacque
39			winqnipim
40			pinocque
41	anamas	namee	wammase
42	oparamae		mauyain
43	chiauk		
44		opsh	waoppaya
45	wampayo	ongrook	oaksyn
46	shickayo	machkan	paqouu
47	sqayyo	ni	see
48	noe		
49	keo		
50	naecum	gutti	sickquh
51	naynut	niakha	naeez
52	seee	bakha	khuhu
53	pus	newa	yaugh
54	yant	nulan	nuppait
55	pa	guttaah	boquentah
56	nacutah	nibonah	myyay wah
57	tompawa	khuuah	trah
58	swal	nowell	paeeoocque
59	nore	wimbat	milah
60	pyao		

Q.

Family. Languages.	IV. ALGONKINS.	
	Miamis.	Illinoi.
1. Man	belaniash	inim
2. Woman	metamaah	ickoe
3. Father	noksaheh	nowack
4. Mother	kekiah	meckia
5. Son	akwisima	koimo
6. Daughter	atnnaleh (bis)	tahma
7. Head	indepekoneh	wapip
8. Hair	nelimah	sisisah
9. Ear	tawakeh	nittagi
10. Eye	keshekweh	ickongioon
11. Nose	kiwaneh	
12. Mouth	tonaneh	
13. Tongue	wehlaneh	wiel
14. Teeth	weepitah	
15. Hand	oneksah	sich
16. Fingers		
17. Feet	katah	wisit
18. Blood	nihpeekanneh	nikom
19. House	wikameh	ouitlame
20. Axe	takakaneh	lacahacan
21. Knife	malesh	marisa
22. Shoes	m'kastu (sing.)	makkisina
23. Sky	keheweh	kiak
24. Sun		kiapol
25. Moon		kiais
26. Star	alangwa	raukhon
27. Day	waeche	kiak
28. Night	pikkantahkwe	peukowig
29. Fire	kohteweh	scotte
30. Water	nepeh	nipi
31. Rain	petilawok	chimialeh
32. Snow	monetwa	
33. Earth	ukingoweh	ackikhe
34. River	spitweh	sping
35. Stone	saaneh	
36. Tree	mistaakuck	toonane
37. Meat	wiostbeh	
38. Dog	alamo	oremo
39. Beaver	amakhnoh	ameton
40. Bear	mohkuch	mokkuoh
41. Bird	aweheansaah	pinensa
42. Fish	kikouansaah	chiconessa
43. Great	mahahkeh	
44. Cold	tehiku	ripahnon
45. White	wapekinggek	bisee
46. Black	makekatwokingeh	meceate
47. Red	nubpekatinggeh	mikof
48. I	neelah	nira
49. Thou	keelah	kira
50. He	weelawh	uirra
51. One	ngpooteh	nicole
52. Two	ntjneh	nibansa
53. Three	nistneeh	nihwoui
54. Four	nieweh	niboni
55. Five	yalanweh	naha-rough
56. Six	kako'sweh	kackatoni
57. Seven	shwahtatahweh	soatani
58. Eight	polateh	parahare
59. Nine	ingotemmako	nicote maneeh
60. Ten	matataweh	mitatoni

Q.

IV. ALGONKINS.

Esawnee.	Seneca.	Menomonee.
1 ileni	neneo	eenayaynoewuk (pl.)
2 eqniwa	kwyokih	meetiayymo
3 notha (my)	noosa (my)	hoabnun
4 neegah (my)	kektoosun	moektoonahaymasowah
5 nicktohwa	nekwoosa	nekoesh
6 notanitha (my)	tanea	oataynooman
7 weelckah	weshi	way'ish
8 welathoh	nennosoneh	wecaynotlaam
9 towkah	nektowakye (my)	
10 skimeeqwa	nektiabekwih	oashkayshayio
11 oebali	nektiwanvek	oocheeuh
12	wektoneh	
13 weelinwie	nennaneweh	oataynooneqewah
14 wapeetalee (hb)	neptan	waypay
15 siligie	nepakurnetchah	oanah
16	ekweenenanseikenetchih	
17 kumie	nektat'cheh (?)	oashayrt
18 misquoh	meekweh	
19 wigwa	weko-ab	wackoewaam
20 looaca		naynanpay
21 manee	males	shabaykun
22 nemequothowa		maukababeh
23 menqnotwe	apemokuh	kaahik
24 keeshwa	kejeemoh	kaysho
25 tepthakakeeshwa	tepakroakejes	teepay kaysho
26 aligwa (pl.)	znakwakeh	habush
27 keshqua	keeshkeeh	wikayshikah
28 tepchke	lupakeh	oanctoopayikun
29 ocoke	ekwatah	shkostaywan
30 nappoe	neppi	neepayway
31 kemewane	keemeean	keemaywan
32 waneesh	akon	koan
33 ake	hakoo	
34 sepi	seepoah	shaypaywao
35	seecneh	shibeh
36 neteqoeghka (pl.)	namateh	matteeg
37 wianthoe	hooyaseh	mitcheemayshay
38 weesh	alemon	oosaym
39 amaquah		nammah
40 mawquah	makkwah	oawaysyahay
41 wiskuntha	wishkamon	
42 amatha	nemas	noamayano
43		
44 woppee	keeseean (subst.)	kahshewe (cold weather)
45 opee	wapektayah	wanbiah keewah
46 mukhoote	makatawah	oappay lbhun
47	moakwah	maykeewah
48 nelah	neenuh (me)	pinnah
49 kolah		kinnah
50 welah		behenah
51 negote	nektoteh	neukoatuh
52 neehwa	niah	neuh
53 nihuh	neewoah	nebbocowag
54 nowe	neekwah	neeweh
55 njalinwe	neeananon	neeshnus
56 negotewathwe	kotoaabec	neocowawahetaw
57 neehwathwe	nowee	noahikun
58 seehkewa	shoabee	hoowanthik
59 chakatawe	shan	shawkahwe
60 metathwe	kweepah	maiwraw

R.

Family.	V. LANGUAGES.			
	Languages.	Onondagoum.	Seneca.	Onidas.
1. Man		etohinak	angooch	loenkquee
2. Woman		echro	yebong	acurahiti
3. Father		joiriba	hasee	ragomeh
4. Mother		onovha	nooghe	ragomeohah
5. Son		behawak	seawook	yungb
6. Daughter		echro jehawak	keawook	kzyangh
7. Head		anuwara	oosooen	onoojee
8. Hair		onuchquire	onunkaah	osanquis
9. Ear		ohacta	waunchta (pl.)	ohuntah
10. Eye		ogachra (pl.)	kaka	ohkankan (sh)
11. Nose		onichsa	cagonda	onoo-ohsabanoo-oh-
12. Mouth		izhagchruhuta	wachagaint	yeeook
13. Tongue		enachee	wanachaba	owinaghaoo
14. Teeth		onotachia	kanujow	onooweelah
15. Hand		luigew	hahbrookta	enutagh
16. Fingers		eniage	yaneawgabough	
17. Feet		ochata	oochaboeta (sing.)	ochahsecht
18. Blood		onquecha	ulquena	ooeequonah
19. Hoose		ganschajje	cauchsa	kannonghan
20. Axe		sachquecha	otroyeh	
21. Knife			kankunbeeah	
22. Shoes			ahtoyawohwa	
23. Sky		tiarate	kinnyage	
24. Sun		garachqa	kachqua	uualter
25. Moon		garachqua	kachqua	konwansontegank (?)
26. Star		otachishtenooqua	cajshanda	yoojimoqua
27. Day		woehuta	unde	weneeslaet
28. Night		achaontha	nehwha	kawwosooncaak
29. Fire		ot chuchta	ojiahta	ojiahteh
30. Water		ochnecanoo	oekandur	oghnacasho
31. Rain		netotachtarenti	oostaha	yoccaunour
32. Snow		ogera	onyehak	oneeyant
33. Earth		uchwuntechia	nenjah	abunga
34. River		geibata	keechoude	kaihhoonhadadee
35. Stone		onaja	oogua	
36. Tree		garontia	kacet	
37. Meat		owachra	owaha	wanahloo
38. Dog		tachierha	cheyke	erbar
39. Beaver			nong canawgung	
40. Bear			yucwy	
41. Bird		tachigachko	ochestaw	woodedah
42. Fish		otachtonta	kanjock	kunjoon
43. Great		goknoo (to be)	oosoon	
44. Cold		otoxi (my)	ootooe	yntoghhe
45. White		orhestocu (to be)	noandaun	owishko
46. Black		gazihoetari	jenshtau	hoisauuto
47. Red		otquechtaroon	quechtaha	oniquabtafa
48. I		I	ee	
49. Thou		his	ee	
50. He		rahb	ahwha	
51. One		akata	akaut	kuekt
52. Two		tekini	tichnee	teghin
53. Three		achoo	ahgh	hainn
54. Four		gajeri	kasee	caydi
55. Five		wak	wiah	haisee
56. Six		achiak	yasee	yahiao
57. Seven		techoatak	jawdock	Liandoo
58. Eight		tekiro	tikough	tagteto
59. Nine		watiro	teutough	wadehlo
60. Ten		wascho	waaigh	woyehli

E.

	Cayuga.	Tuscarora.	Notiowa's.
1	nejina	si'ooohau	eniha
2	kuhaghtie	sitaran'yekkaeeaweah	ekening
3	ihaai (my)	awkroeeuh	akroh
4	iknoha (my)	eanuh	ana
5	ihihawog (my)	wahnsoohuh	wakatonta
6	ikhebawog (my)	kauuhwuhh	eraha
7	onowaa	obtahreh	setarake
8	ononkia	oowaara	howarac
9	bonta	ohhuhneh	sontenke (pl.)
10	okaghha	ookaweh	untoharac (pl.)
11	oyohula	ohchyahmy	otroag
12	sahakant	ookawrohweigh	sakharant
13	sweanagha	awuntawway	darunke
14	onolja	ototah	olooag (pl.)
15	sehoghtage	oheneh	nunke
16	onia (sing.)	toohweh (R.)	nunke
17	ohita (sing.)	uhseh (sing.)	saeteke
18	otweese	ootauh	gakum
19	kanosid	yookuhagh	onobag
20	stokes	nokeeh (R.)	
21	kaistra	oosahkeuhneh (R.)	oankenta
22	ataghkwa	oochekpora (R.)	otagwag
23	otahata	oughrubym	quakerwutika
24	kaaghkwa	hoelay	aheta
25	soheghkakaaghkwa	hoelay	tothake
26	ojishonda	otcheesnoobquay	deemba
27	onirate	awehaeh	antyeke (time)
28	saobe	oootoo	munta (time)
29	ojista	stire	anteur
30	oikanco	awuh	awwa
31	oosandion	wuntootch	yountoutch
32	onieye	owweesary	kaukaw
33	oosaja	an'fawknh	ahonroch
34	kihade	kceynagh	joke
35	kaakwa	owrunay	ohhontakh
36	krael	oughrubeh	gorae
37	owahon	ohwaureh	
38	shosa	tcheer	cheer
39	akaniago	chucokreh (R.)	
40	yekwai	oocheruh (R.)	
41	jiteae	tcheeah	cheeta
42	otaionda	kuhtobuh	kaintu
43	kowanea	weeyoc	taichawihie
44	otowi	autbooh	walorne
45	keankea	ohwanryakuh	owbaryakun
46	sweandaea	kaubuhatchee	gahuntee
47	okwenjia	tocetqauraynh	ganqniquae
48	I	ie	ee
49	ise	tithawuh	
50	soha	hemrooh	
51	skat	ehche (R.)	uite
52	tekni	uakte (R.)	dekanee
53	segh	abonk (R.)	ara
54	kei	kuntob (R.)	hentag
55	wis	wesek (R.)	whink
56	yel	oohyok (R.)	oyag
57	jatak	cheohnoh (R.)	ohslag
58	tekro	uakrooh (R.)	dekra
59	tyohlo	nerenh (R.)	debeernah
60	waghae	wah't'suak (R.)	waba

S.

Family. Languages.	VI. SIOUX.	
	Yaktons.	Winshagóes.
1. Man	weechaaha	wongahah
2. Woman	weeah	nogahah
3. Father	atcncu	chahchikal
4. Mother	hucou	chahcheekah
5. Son	cheebeetocou	eneek
6. Daughter	weotachnoog	heenuh'habbah
7. Head	pah	sahnhbah
8. Hair	paha	
9. Ear	nongtopa	nahchahwahhah
10. Eye	ahhah	ishchutuhbah
11. Nose	pasoo	pahhah
12. Mouth	e-e-e	eehah
13. Tongue	chaidahce	dehneebah
14. Teeth	hee	
15. Hand	napsi	nahbeebah
16. Fingers	napchoopai	seap
17. Feet	cecha	seebah
18. Blood	uoui	wahweebah
19. House	teepon	cheetah
20. Axe		maha
21. Knife	meena	mähhee
22. Shoes		waukootshey (sing.)
23. Sky		mahkheebah
24. Sun	oocce	hauyip (day), weehah (sun)
25. Moon	hayaitoowee	hahniip (night), weebah (sun) [ed]
26. Star	weechahpce	weehah (sun), kohahkah (suspend- hampcehah)
27. Day	aungpa	
28. Night	bahsipce	
29. Fire	paha	pedghah
30. Water	meenee	ahah
31. Rain	mahajou	neehuh
32. Snow	wah	wahhah
33. Earth	mongca	mah'pah
34. River	wacopa	ohunwah
35. Stone	eeyong	cehee
36. Tree	chaongeeena	nahnah
37. Meat	tado	chahhah
38. Dog	shouka	chohnkeebah
39. Beaver	chapa	nahpah
40. Bear	wahunkaiosecha	
41. Bird	zeecanoo	wahaioghah
42. Fish	bohng	bohah
43. Great		
44. Cold	snee	seeneebah
45. White	seah	akah
46. Black	sapah	sebhah
47. Red	shah	shooh
48. I		seeah
49. Thou		ney
50. He		neeah
51. One	wancha	jungk'hah
52. Two	nopa	nömp'wi
53. Three	yamenee	tahniwi
54. Four	topah	tahö'wé
55. Five	zapa	sahhah
56. Six	shakpai	shahwé
57. Seven	shakce	shahko
58. Eight	shakundohah	e-oo ougk
59. Nine	nulpeet cheewungkah	jungkitabooohkooni
60. Ten	weekcheeminuh	kahpahni

S.

VI. STOUR.

Quappas.	Ottos.	Omahas.	Minetars.
1 nikkah	wahsheegai	noo	matra
2	nahhakkai	waoo	meeryai
3 ihntatteh	antchai	dadaí	tan'ai
4 jadah	eehong	eehong	eeka
5	eeingyai	ee jinggai	moourishai
6	eeongai	ee jonggai	macath
7 pahhiih	na-oo	pah	antoo
8 nijihah	natoo	pahee	arra
9 nottah (pl.)	nantois	neetah	lahockee
10 inschta	ishtah	ishtah	ishtah
11	paísoo	pah	apah
12 jhhah	ee	eehah	ee-ee-eechappah
13 delzeh	raizai	theysee	neigh joe
14	hee	e-e-e (sing.)	ee-ee
15 nopeh	nawai	nomba	shantee
16 n'opóah		shagai	shanteichpoo
17 sih	see (sing.)	see (sing.)	itee
18	wapagai	wamee	eebree
19 tih		tee	atee (mahawk)
20 mispekjinkah		mazzapai	woo-ee-pailangai (to-
21 mohih	mahee	mahee	matzee
22 houpeh (sing.)			opah
23			
24	pee	meenacajal	malpemeenee
25 mioupah	peetangwai	meecambah	ohsamene
26 miheacheh	peekahai	meesai	eekah
27	hangwai	ombah	malpaih
28	hangwai	hondai	ohseens
29 petteh	paíjai	paídai	beersis
30 nih	nee	nee	meenee
31	neeyn	nannshee	harai
32	pah	mah	malpai
33 monickkah	maha	moneeka	amah
34 nih	neeshnongai	watishka	angoo
35	eengro	ee-eeh	nee-ee
36 yon	nabohrajai	herabaimee	beeraiechtoet
37 tabyuh	tatookai	tanoka	curatsehlttee
38 schonnkiet	shongokainee	sheenoota	matshuga
39 javeh	rawaiy	jabai	meerapa
40 tassah	monjai	wasabai	lahpeetzoo
41	waingyai	washingruh	snanga
42 hüh	ho	hoho	boa
43			
44	snee	snee	ceertai
45 skah	ska	ska	hoteechkee
46	sawai	sahbai	shupesha
47	shojai	jeedai	ishhee
48			nee-ee
49 dieh			nee
50			lemoiso
51 milchti	yonkai	meeahchee	nooph
52 nonnepah	nowai	nomba	namee
53 dahgheuh	tanee	rabenee	tóph
54 tuah	towai	tooba	cheehoh
55 sattou	sata	satta	acamai
56 schappeh	shaquai	shappai	ehappo
57 pennappah	shabaimuh	painumba	nopee
58 pehdaghenih	hsirsbainai	hraisbainai	nowassappai
59 schunkkah	shankai	shonka	peeragas
60 gédéh bónth	kraibainuh	kraibaira	

T.

Family. Language.	XXIII. TSNAILI BRUSH.		
	Atsah.	Skikwah.	Pikawa.
1. Man	kulomukh	skalttemukh	skalttamikho
2. Woman	remokhilitahk	examim	ramotom
3. Father	ratas	pipas	laans
4. Mother	kekha	sakwas	shkui
5. Son	akuska	sakosk	saktusa
6. Daughter	atenkikilt	stimak	stankas
7. Head	skapshan	khomakan	khomukam
8. Hair	kbaotwn	kipakain	skhiankan
9. Ear	tbiaw	tena	taas
10. Eye	khukokhlotan	sintklosonia	sintklosoemsa
11. Nose	spasaks	sitahameka	mokain
12. Mouth	spulutsin	sitahamekan	ekbumtehin
13. Tongue	tikhwatak	tikhuteki	miik
14. Teeth	khaiakhu	khaisieku	khalekhu
15. Hand	lakhalakst	stasakist	klikih
16. Fingers	lakhalakst	stasakist	klikih
17. Feet	loakhin	stasushin	stasobin
18. Blood	metikboa	mititama	mitikhkain
19. Home	tehitukh	tsalukh	stuhel
20. Axe	shklumen	shklumin	khawakhan
21. Knife	khutkhakst	wulwulem	mikhannun
22. Spoon	shithkto	skhaisin	skhaisin
23. Sky	skhlekhat	sitahimaskaist	khomomtsakhat
24. Sun	akwotwas	sikhideranikhi	khoshum
25. Moon	makben	utkhideranikhi	soakham
26. Star	sukoshint	sititakhontat	pukhpukhainait
27. Day	pakhiaut	situkat	skhiskhat
28. Night	khutahitaboi	snoakwits	shaoawi
29. Fire	teekwa	skwawitkup	shatatkup
30. Water	shawitkhikwa	sikwa	shawitkhikwa
31. Rain	kinkstam	skhopst	stau
32. Snow	mukha	smikbot	shmakhat
33. Earth	tikhokalukh	tsmikbotimukh	smagmit
34. River	tsnakh	shikwa	npukwatki
35. Stone	shkhamikh	shkot	khutkhlot
36. Tree	tshighap	etsalot	shuopt
37. Meat	tshee	skaitaki	skatik
38. Dog	skakha	eskiko	khakhatkhitamin
39. Beaver	skalan	sintshiametku	skalan
40. Bear	shksmkhaes (black)	ntkhiamekw	mikhathkl
41. Bird	spioa	shit	bohwiol
42. Fish	shuawitkhl	kaikhulish	uacawitkhikwa
43. Goat	khosim	khaiskhaist	kwatant
44. Cold	tshatkh	ikhomus	shatshit
45. White	pesakh	npesakh	psakkh
46. Black	kwawokhwaii	okhwad	khwaii
47. Red	tshiskhwa	ukwii	kwiil
48. I	otshatahus	ants	intsh
49. Thou	anewi	anogwad	inoi
50. He	uwawh	tsasul	tsenil
51. One	skho	nakhwa	nakh
52. Two	siseis	tsel	tshagwa
53. Three	ketkhles	kikhles	katkhles
54. Four	mos	mos	mshas
55. Five	tabelikat	tsilikista	lahilikait
56. Six	takhamakst	tawishaksta	hotshimakst
57. Seven	tahitikhikwa	tsunikistam	shiapalkh
58. Eight	nkoops	hacowu	twiin
59. Nine	tsmikhlinskokwka	khakhanot	khakhanot
60. Ten	opukat	opanikat	opanikat

T.

XXIII. THIRAILI SRIJISH.

Skwale.	Taihalish.	Kowellitak.
1	stumsh	nawetkhlamakh
2	stkhladai	knwitkhl
3	baa	koma
4	sokho	kota
5	nimsuda	neman
6	nibada	tsumaman
7	skhsias	khomat
8	skhatso	ksaka
9	khoiane	khoolan
10	khalom	mos
11	makusin	mukusun
12	kamukh	kunikh
13	tkhilab	tekhutsitkhl
14	tsenis	yenis
15	tahulash	lakhiataka
16	tshalash	lakhiataka
17	tseshin	tsotkhl
18	stulikwan	skwaitkhl
19	stutkhl	khakh
20	khamatn	khostn
21	suokh	kwakhomun
22	ishhin	tsutkhlshin
23		tkhltalaku
24	tkhltaknakhl	tkhlokhwatkh
25	stkhlukwalam	tkhlokhwatkh
26	stshibus	kasu
27	skhlakhel	skhsiekh
28	tkhlakh	kwiekh
29	hot	mokasp
30	kho	kal
31	skhalom	sukwa
32	makho	skhlakhwu
33	suatrakhtin	tsamakh
34	stulakwa	skewitkhiko
35	tshetkhlia	tukale
36		iameta
37	msiats	kos
38	skobai	ksakhs
39		
40		
41	tkhfitkhaalkam	
42		
43	hekhwö	tsawatkh
44	tes	tkhlekh
45	khokkhekhl	lakhwokh
46	khaimetah	kanakhu
47	khakwitakhu	uktseakhu
48	utsu	untsa
49	dtuwo	tsuwö
50	tsunitkhl	tsunö
51	nutsho	ots
52	sale	sale
53	tkhlikho	katkhlo
54	mos	mos
55	tsilats	tselatah
56	tsilatshe	takham
57	tsooks	tsopa
58	takatshe	tslamos
59	khosn	tookhu
60	panutsh	panutsh

U.

<i>Families.</i> <i>Languages.</i>	XXIII. TSH-SHLEH. <i>Nisshawa.</i>	XXIV. SHAPTIN. <i>Walawala.</i>	XXV. WAILATPU. <i>Meloh.</i>
1. Man	tailabo	wunah	lai
2. Woman	suitkhiala	tlaki	lungtikhlai
3. Father	wla	pehit	putainha
4. Mother	wla	pitaha	khaka
5. Son	tuawon	lata	wain
6. Daughter	talunwan	inba	puana
7. Head	takben	tipi	lawi
8. Hair	tkhikakben	tutagiki	taikhlim
9. Ear	tuod	mitsikh	taopa
10. Eye	taakhakhi	etahish	tunta
11. Nose	tiwahisen	atshu	pitkhits
12. Mouth	shiswaina	Im	saalik
13. Tongue	tikhitas	mish	tenaf
14. Teeth	tkhisa win	ititi	taa
15. Hand	tahala	epap	tafatoka
16. Fingers	kakutetaha	epap	tailuka
17. Feet	nikbaunas	wokha	aikhip
18. Blood	akino	lik	belim
19. House	taawon win	laic	jatkhwakaia
20. Axe	tkhikakatum	wataokte	tkhikomla
21. Knife	tkhaisokbi	khapikhimi	pukaash
22. Shoes	mucinaatun	tkhikhiam	tafaaup
23. Sky	taakhakhan	paahait	was
24. Sun	taiaakhtaa	an	hautkhi
25. Moon	takhochutan	alkbaikh	kaki
26. Star	nukhikbiaikhia	khale	wanna
27. Day	hanswaa	petabne	ishai
28. Night	hultai	shat	tala
29. Fire	tkhikakhoth	likaba	okonfa
30. Water	tkhikahilo	tabuh	kwanwest
31. Rain	tkhikaktkbi	shkhawitaha	paag
32. Snow	tkhikakhanun	puil	langa
33. Earth	lawakh	titaham	tom
34. River	tuawintohi	wana	kant
35. Stone	taakwah	pausa	mos
36. Tree	tkhisaakhi	atahit	nawit
37. Meat	taata	mikute	witaki
38. Dog	taakhakhaa	khukhaal	puhaama
39. Beaver	taotkhwoa	takhapul	natam
40. Bear	latontahiaho	iaaa	twaha
41. Bird	tkhikakhotha	paopin	waibalf
42. Fish		tkwanalitit	noaa
43. Great	taawakh	nabi	fwalta
44. Cold	taawail	khait	tkhikah
45. White	tahakhi	koik	mokimokl
46. Black	taawakhi	tabmuk	tabaktabakwe
47. Red	tkhikakul	lutaha	ina
48. I	atasa	in	ki
49. Thou	anake	in	nul
50. He	taawithl	pin	nangu
51. One	tahako	nakha	lapka
52. Two	tkhiana	napit	maka
53. Three	taanaa	mitat	pipa
54. Four	tkhilewo	paapat	pika
55. Five	taukha	paakat	wapika
56. Six	tailokhamaj	olakha	lapka
57. Seven	tutahoo	oinapt	mutpika
58. Eight	tuakahi	nim-atat	lagi-otabikha
59. Nine	tkhilep	taamet	nawitap
60. Ten	tkhisaantaba	putimpt	

U.

XXVI. TSHIMUK. Watsla.	XXXII. SHOSHONKE. Wihinash.	XXI. WAKASH. Nootka Sound.
1	lkhlekala	checkup
2	tkhkatlak	klootzmah
3	tkhktklam	noowexa
4	waiak	hoomshera
5	itahkhan	tanassis checkup
6	ekkhhan	tanassis klootzmah
7	kakhatakh	towhatsetel
8	akwahhu	hupcup
9	amemaha	parjee
10	inkhot	kausee
11	imikshi	neeta
12	emekushkat	netla-tuml, &
13	mankhutkouma	choop
14	tkhlokatah	cheechee
15	tumekahi	kookauka
16	tumekahi	u-ira
17	tumepah	klshkin
18	tkhikawukt	atzi-mis
19	tkwukhle	muktan
20	khaestub	tanwih
21	khawekba	chitayak
22	tkatikpa	
23	ko-bukh	siyah
24	kakhiakh	oopheltk
25	akhihamen	oopheltk
26	tkhikiekhanama	tartoose
27	totahoktiigh	nas chitl
28	aukap	atajai
29	watoikhj	eennuksee
30	tkhlohokwa	chahak
31	tkhketkhli	meella
32	tkhtaka	queee
33	weikh	kiatturman
34	tkhlokbonet	tzac
35	khefamst	mookaee
36	tkaromak	soochis
37	tkhulewa	chi-qui-rais
38	khotkhot	semitl
39	tkhwakhwa	
40	kanokh	chi-mitz
41	tkakakabakh	kaense
42		keesapa
43	iekaitkhl	asco
44	oometigh	ate-quitzi-majas
45	tkhop	atit-lzude
46	tkhtal	
47	tkipal	
48	waika	chella
49	maika	soa
50	takha	ahkoo
51	ikt	ahwank
52	maktabf	atala
53	tkhjom	kates
54	laket	mooh
55	kwanan	soochah
56	tkhcam	noohoo
57	sanamakust	atlicpoo
58	soohen	atliquelth
59	kweee	sawwaukqueth
60	tkhjelikam	hyo
	nana	
	nogboni	
	una	
	pia	
	ifue	
	tsakhki	
	isoiph	
	ikuo	
	inaka	
	pu	
	noafi	
	tupa	
	egho	
	tama	
	imai	
	mai	
	kuki	
	apui	
	noxi	
	wowiani	
	wihi	
	moko	
	patakia	
	tava	
	muha	
	patuzuva	
	tavino	
	tokano	
	ko-o	
	pa	
	lomoa	
	niwawi	
	tip	
	auahukwa	
	tipi	
	atuka	
	soghoank	
	kohi	
	padun	
	kuinaa	
	aghai	
	paain	
	szia	
	tohakwitya	
	tuhakwitya	
	atakwitya	
	ni	
	oo	
	singweiu	
	wahku	
	paliku	
	wataikweyo	
	napiu	
	natakawayu	
	singwajoyu	

CALIFORNIAN LANGUAGES.

BESIDES the words of the Shasty language before mentioned, Mr. Dana collected vocabularies of several dialects spoken on the Sacramento, which are of especial value, as being the only information which we possess relative to the ethnography of that region. The following are a few words of the language spoken by the Indians on that river, about two hundred and fifty miles above its mouth. The name of the tribe was not ascertained.

(1.) *Upper Sacramento.*

hair, tamoi	knife (or iron), kelekele
eye, tumut	sun, sas
nose, taono	fire, po
mouth, kal, kalo	water, meim, meima
chin, kentikut	deer, nop
forehead, tei	salmon, monok
arm, keole	grape, uyulu
fingers, tsemut	rush, tao
leg, tole	eat, ba or bas
foot, ktamoso,	see, or, let me see, wila, wile
knee, huisk	go, hars

At the residence of Captain Suter, a respectable settler, who had established himself about a hundred miles up the Sacramento, Mr. Dana learned that all the Indians of that vicinity, who were divided into numerous tribes or bands, might be referred to two races, one of which dwelt chiefly on the east side of the river, and the other on the west, or on the banks of Feather River, a tributary to the Sacramento, on the eastern side, about twenty miles further up.

These races resembled one another in every respect but language. To the former belong the *Talatui* tribe, of which a vocabulary was obtained, as well as the following bands, the names of which were furnished by Captain Suter, viz., the Ochekamnes, Servushamnes, Chupumnes, Omutchumnes, Sicumnes, Walagumnes, Cosumnes, Sololumnes, Turealemnes, Saywamines, Nevichumnes, Matchemnes, Sagayayumnes, Muthelemnes, and Lopotalimnes. In the dialects of all these tribes the word for water is *kik*, while in those of the other race it is *momi*.

(2.) *Talatui*.

A tribe living on the *Kassima* River, a tributary to the *Sacramento*, on the eastern side, about eighty miles from its mouth.

man, sawé	sky, witçuk	sweet, tçûitçûi
woman, esée or esúu	sun, hi	sour, sikaik
child, tane	day, hiúmu	quick, wéazak
daughter, tele	night, kawil	go quick, lois weasmak
brother, adi	dark, hunába	run, taige
father, tata	fire, wíke	walk, löiü
head, tikit	water, kik	swim, alne
hair, manú	river, wakátçi	talk, hunai
ear, slok	mountain, wepa	sing, kútkik
eye, wilái	stone, sawá	dance, lemuk
nose, uk	tree, ála wa	eat, tamák
mouth, hubé	wood, timber, kawél	one, kenate
neck, numit	grapes, mute	two, óyoko
arm, tawá	deer, uwia	three, tellko
hand, iku	bird, lone, ti	four, oiçúko
fingers, kidjuha	fish, pu	five, kasako
leg, kólo	salmon, tugun	six, temebo
foot, subái	name, ówúk	seven, kánikuk
toe, ti	beads, hówut	eight, kaúnda
house, kodjá	good, wilewíi	nine, óoi
bow, óli	bad, saije	ten, ekúye
arrow, háulo	old, udumitço	twenty, naa
shoes, lok, lóka	new, wesu	thirty, oyimi

(3.) *Pujūni.* (4.) *Sekumne.* (5.) *Tsamak.*

Of the second race, or that inhabiting the western bank of the Sacramento, Mr. Dana obtained the name of the following tribes, viz., Bushumnes (or *Pujūni*), Secumnes, (or *Sekumne*), Yasumnes, Nemshaw, Kisky, Yalesumnes, Huk, and Yukal. The following vocabularies belong to the two first mentioned, and to a third, the name of which was not distinctly understood, but seemed to be *Chamak*, or *Tsamak*.

	<i>Pujuni.</i>	<i>Sekumne.</i>	<i>Tsamak.</i>
Man	çune	mailik	mailik
Woman	kele	kele	kele
Child		msidumonai	
Daughter		eti	
Head	tçntçül	tsol	tçntçul
Hair	oi	ono	oi
Ear	onó	bono	ono
Eye	watça	il	bil
Nose	henka	suma	
Mouth	moló	sim	
Neck	tokotók	kui	kalut
Arm	ma	wak	kalut
Hand	tçapai	ma	tamsult or tamtçut
Fingers	tçikikup	biti	tçikikup
Leg	pai	podo	bimpi
Foot	katup	pai	pai
Toe	tap	hiti	
House	bé	bá	
Bow	ólumni		
Arrow	huid		
Shoes		solum	
Beads		hawut	
Sky	hibi		
Sun	oko	oko	
Day	oko	eki	
Night		po	
fire	ça	sa	ça
Water	momi, mop	mop	momi
River	lókolók	mumdi	mumdi

	<i>Pujuni.</i>	<i>Sekamue.</i>	<i>Tsamak.</i>
Stone	o	o	
Tree	tça	tsa	
Grapes		mti	
Deer	wil	kut	* kut
Bird		tsit	
Fish		pala	
Salmon	mai	mai	
Name		ianó	
Good	hak	wenne	huk
Bad		tçoç	maidik
Old		hawil	
New		be	
Sweet		sudák	
Sour		oho	
Hasten		iewa	
Run	tshel	gewa	
Walk	iye	wiye	
Swim	pi		
Talk	wiwina	enun	
Sing		tsol	
Dance		paio	
One	ti	wikte	
Two	teene	pen	
Three	shupui	aspui	
Four	pehel	tsi	
Five	mustik	mank	
Six	tini, o	tini, a	
Seven	tapui	pensi (?)	
Eight	petshai	tapui (?)	
Nine	matshtm	muteum	
Ten	tshapanaka	uduk	

(8.) *La Soledad.* (7.) *San Miguel.*

I began taking down at the same time, vocabularies of two languages, from Indians belonging to these missions, but was unfortunately interrupted in my task, and had no opportunity of completing it. The few words which were obtained will serve at least to show that these languages are independent of each other, and of all the rest contained in this work.

	<i>La Soledad.</i>	<i>San Miguel.</i>
One	himitsa	tohi
Two	utabe	kagou
Three	kapkha	tlubahi
Four	utjit	kem
Five	parusah	oldrato
Six	iminukaha	paiate
Seven	udakeha	tepa
Eight	taitemi	aratel
Nine	watso	teditrap
Ten	matsoso	trupa
Man	mue	losi, lusi, lorga:
Woman	shurishme	tiene
Father	nikapa	tata
Mother	nikana	apai
Son	nikinish	paer, pael
Daughter	nika	paer, pael
Head	tahop	tobuko
Hair	worokh	teasakho
Ear	otabo	tenthhito
Nose	us	tenento
Eyes	hiin	trugento
Mouth	hai	treliko

La Solidad is in latitude about 35; and San Miguel lies more in the interior, about fifty miles south-east of La Solidad. Besides these, Mr. Hale procured vocabularies of three other Californian languages; viz., 1, San Raphael, in the bay of San Francisco, lat. about 38, which appears to belong to the same family as some of those collected by Mr. Dana on the River Sacramento; 2, the Netela, spoken at the Mission of San Juan Capistrano, lat. 33½; 3, the Kiji, at the Mission of San Gabriel, lat. 33½.

Mr. Coulter has given, in the Journal of the London Royal Geographical Society, the vocabularies of five other Californian languages; viz., Pima, San Diego, lat. 32½; San Barbara, lat. 34½; San Luis Obispo, lat. 35½; and San Antonio, lat. 36½, in the vicinity of Monterey.

These last eight vocabularies are inserted under the letters V and W. Finally, the following vocabularies of two

tribes called Eslen and Ruslen, are taken from the journal of the voyage of the two Spanish vessels *Sutil* and *Mexicano*. But it is clear that many of these numerous languages have affinities, and that the actual number of distinct families will prove less than might be supposed.

	<i>Eslen.</i>	<i>Ruslen.</i>
Man	ejennutek	muguyamk.
Woman	tamitek	lstrayamank
Father	a-hay	appen
Mother	azia	aan
Son	panna	enahineh
Daughter	tapana	kaena
Bow	payunay	laguan
Arrow	lottoa	teps
Friend	miabfe	kank
Sky	imita	terraj
Moon	tomanis-ashi	orpetuei-ishmen
Day	asetza	ishmen
Light	jetza	shorto
Night	lomanis	orpetuei
Water	azanax	ziy
Fire	na-namenes	belio
Mine	nitscha	ka
Thine	nimetaha	mé
Great	putuki	ishac
Small	ojask	piashit
One	pek	enjala
Two	u-lhaj	uitis
Three	julep	kappes
Four	jamajus	ultizim
Five	pemajala	hali lru
Six	peguatanoi	hali shakem
Seven	jula jualanei	kepkamai shakem
Eight	julep jualanei	ultamai shakem
Nine	jamajas jualanei	packe
Ten	tomoila	tanchajt

V.

<i>Languages.</i>	San Raphael.	Kij.	Netela.
Man	lamantya	worot	yifta
Woman	kulaish	tokor	sungwal
Father	api	anak	nana
Mother	ona	nok	nyoro
Son	ai	aitok	nakam
Daughter	ai	airok	nasuam
Head	moin	apoom	nyu
Hair			
Ear	alokh	anana	nanekum
Eye	shuta	atabotahon	nopnicm
Nose	buka	amepa	nomusum
Mouth	lakum	atongin	
Tongue	laimtip	usongin	
Teeth	kut	atatum	noto
Hand	akne	aman	naakalom
Finger			walikut
Feet	koto		nee
Blood	kitabo	akhain	woo
House	kotoya	kitah	nikl
Axe			
Knife			
Shoes			
Sky			
Sun	hi	tamet	temet
Moon	puhokk	mohr	nooi
Star	kitah	subt	sool
Day	hi	oronga	teme
Night	walaynta	yanket	tuknot
Fire	waik	ishawot	mughat
Water	kik	bar	pal
Rain	walopa	akwahh	kwast
Snow	yamin	yoai	yul
Earth	yowa	totanga	
River			
Stone	lupoti	tota	tot
Tree			
Meat			
Dog	ishntahu	wand	aghwal
Beaver	timis		
Bear	kulai	hubar	hnot
Bird	kakak	amacharot	obeymat
Fish		kwaling	mughut
Great		yok	oboloo
Cold	usuni	alabo	
White	pehiah	arawatai	kwalknot
Black	molata	ypikka	yoankhnot
Red	lahupota	kwaukha	koakut
I	kani	noma	no
Thou	ezemazi	oma	om
He		abo	wanal
One	kenai	puku	puku
Two	osa	webe	webe
Three	tulaka	paha	paha
Four	wiang	wata	wata
Five	kenekus		mabar
Six	patirak		paraha
Seven	semilawi		aghwohitah
Eight	wasaya		webeswata
Nine	umarak		pebelanga
Tea	kitahish		wehkn-mabar

W.

Languages.	Pima.	San Diego.	Santa Barbara.	San Luis Obispo.	San Antonio.
Sky	tash	aa	alapai	tikhis	zapalemak
Sun	maskai	indla	alibakhua	s'mape	nuah
Moon		khlepkhustai	agnai	tabua	tatsoopai
Stars		kha	akehun	k'ahihmu	tatch-hoanffh
Water	shontik	ahua	oh	to	tcha
House	nihki	epatoh	shpa		traamah
Man	tinot	seen	eheye	h'imono	lnah
Woman	uba	jacoal	ehnek	tacyubf	letao
Child	andi	shoei	topnemh	tachullmono	sketana
Stone	jote	na	kheup	tkheup	taakhba
Day	inshimet	qostal	husico-esini	t'chuhain	trkana
Grain	vobovakntch	aha			katcha
One	homako	khahac	paka	takhama	kito!
Two	koek	khamec	shkobo	eshin	khakibe
Three	beik	khamec	masekh	niaba	klap'hai
Four	kik	tchapa	akoru	paki	kisha
Five	khekhtape	khodscui	yiti-paka	tjehoi	nltraoh
Six	tasutep	khentchapai	yiti-shkome	kanhuaya	painel
Seven	bubak		yiti-masekh	sh'namahbe	t'eh
Eight	kikike	tebamp-tohapap	malahua	sh'komo	shanael
Nine	hanpikt	shntobahoi	spa	sh'nometchl-makbe	tetatol
Ten	huisteman	namat	keshko	tuymilf	taoeh
Eleven	maato	shn-nokhap	keilu	tihutapa	taoektoib
Twelve	koobk		masekh-akuma	takotia	lapaikha
Thirteen			kel-paka	huakshumu	lapaikha-trekhtoi
Fourteen			kel-ibko	huaklein	hoohosho
Fifteen			kel-masekh	huakimabe	lapai-nltrau
Sixteen			peta	penai	k'peah
Lake	vo	kha-quatai	eukeke		lipoi
Sea	kakatchka	khsalk	skahamihoi	t' shnekhan	sh'kem
Mountain	took	mai	oshiomohi	lapu	kitpoi
Bow	nikat	atum	akha	tekha	khaketa
Arrow	napot	copai	yah	lelehu	tatoiyn
Chief	capit	cusipai	hoot		quatai
Good	shokit	kham			katcha
Bad	numko	khano			khomo
Small		ilimom		tohuie	skitano
Earth		mar	iti-kiala-kaipi		lac
River	akemali	kha	shtejeje	tajimi	shooka
Salt	ona	eu	tipl	tepu	traksi
Light	tai		neuk	tina	traem
Night	stuukum	cojon	sulochu	tch' khime	smekai
Cold	seapit	khetchur	sokhon		taetleia
Hot	ston		sientseuk		truyeiya
White	shkha	umahap	ohukh		k'malaol
Black		milh	akemai		k'banuat
Door	psalit	huaa	ekeipe		tahkham
Body	nionh	emal	hekampium		natrikan
Father	niok	manalle	hukonosh	sapt	tele
Mother	intul	paralle	khoninash	toyu	epjo
Breast	tirot	kuemel	akhauiash		khaialhua
Moist				tekhu	khaiya
Little				tahnisme	shomo
Head	nomoh	khelta		p'aho	trako
Heart	ipotuk	yatchick		nokhop	shnu
Hand	noh	ashali		napu	menan
Ear	naank	khiamal		p'ta	tshokolo
Friend		kuemhuia		taakhai	tiengkha
Enemy		akhua		tainajihmu	trnabi

X.

<i>Languages.</i>	<i>Ononctation.</i>	<i>Aleutan.</i>	<i>Kamshatka.</i>
Man	tayabo	loioch	nakaams
Woman	anhahesak		
Father	ahhak	athan	is-ch
Mother	anak	anusan	sax-ch
Son		l'laam	pa-stah
Daughter		ashkin	soogning
Head	kambek	kurngha	t-choosa
Hair	imben	smley	koohit
Ear	totoosak	totosak	e-ew
Eye	thak	anghosin	onait
Nose	ankayin	anghosin	kaakiang
Mouth	abesrek	aghilga	kur-ha
Tongue	ahnak	aghnak	notabel
Teeth	keahosen (pl.)	aghainu	kuppot
Hand	chiank	taha	setion
Fingers	at-boonen	aichon	p-koda
Feet	kootok	kita	tah-quatahoo
Blood	amak	samoyak	wewon
House	oolon	ooladok	kiant
Axe		anigabip	koasqna
Knife		omgatzahzhik	watahoo
Shoes			
Sky	inuyak	lutak	kochan
Sun	ahhapak	akathak	qua-stah
Moon	toohedak	toogithak	
Star	stan (pl.)	sthak	
Day	annehiak	anghalik	
Night	amak	angik	lokwa
Fire	keyhnak	higak	pangitak
Water	tanak	taangak	ee-ee
Rain	chaktak	whotatak	uhukutehoo
Snow	kannesh	kaneek	
Earth	cheakto	tabekak	
River	chebanok		symt
Stone	koovasanak		
Tree	yahak		
Meat		oolow	t'halal
Dog	aykok	qikuk	kosa
Beaver			kasa
Bear	tanhak	tanguak	
Bird			etahoo
Fish			
Great		taangoellik	
Cold		kinganalik	
White	oommeleek	komakuk	attagho
Black	kabehhazak	kaktahikuli	
Red	oolnthak	alothak	tahang
I		keon	kikak
Thou		ingaan	kiz
He	skoos		
One	uikem	attakon	keemis
Two	ariok	aluk	nitanoo
Three	kankoo	kankoon	tabusquat
Four	seechewn	shitehin	tahascha
Five	chaan	tahang	koondas
Six	stoon	stoon	kilkosa
Seven	ooloon	alang	ittachtenu
Eight	kanechen	kamtahing	tabaktenu
Nine	seechewn	sitching	tahaktanuk
Ten	atak	haruk	komteok

ARTICLE II.

OBSERVATIONS ON THE
ABORIGINAL MONUMENTS
OF THE MISSISSIPPI VALLEY;

THE CHARACTER OF THE ANCIENT EARTH-WORKS, AND THE STRUCTURE,
CONTENTS, AND PURPOSES OF THE MOUNDS; WITH
NOTICES OF THE MINOR REMAINS
OF ANCIENT ART.

WITH ILLUSTRATIONS.

BY E. G. SQUIER.

ABORIGINAL MONUMENTS OF THE MISSISSIPPI VALLEY.*

THAT the western portion of the United States, embraced within the great basin of the Mississippi River and its tributaries, abounds with rude but imposing monuments, the origin of which is lost in the obscurity of antiquity, is

* WITHIN the past two years, public attention has several times been directed to the extensive investigations in progress, by Messrs. E. G. SQUIER and E. H. DAVIS, M. D., of Ohio, into the aboriginal remains of the West, and particularly those of the Ohio valley. During this period, these gentlemen were in constant communication with the American Ethnological Society, of which they are members; and it was early proposed, and preparations accordingly made, to embody the results of their inquiries in its published Transactions. Their researches, however, were subsequently so greatly extended, and crowned with such remarkable results, as to place their publication, in an adequate style of illustration, entirely beyond any means at the command of the Society. At this juncture, their MSS. and accompanying illustrations, were submitted to the newly organized Smithsonian Institution, and accepted for publication as the first volume of the "SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE." This work, greatly surpassing in magnitude, as in the number, importance, and interesting nature of its facts, any publication of the kind ever before undertaken in this country, is now in press, and will be issued sometime during the ensuing winter. The paper herewith presented, embraces only such detached general observations as may serve to illustrate the antiquities of our country, without anticipating any of the more important discoveries and interesting details of the prospective great work from the same hands, and must not be taken to exhibit a complete or adequate view of the subject. It only aims to group, and in some degree to generalize, the various ancient remains of the West, so as to furnish some rational conception of their extent, variety, and prevailing character.

a fact generally known. Very imperfect notions, however, of the extent, number, and character of these remains are entertained by the world at large. Even where they are most abundant and interesting, the general ignorance, in these respects, appears greatest. It seems strange that hitherto, while every other branch of research has enlisted active and enlightened minds in its elucidation, the archeological field has been left comparatively unoccupied. It is true, isolated and detached observations, and occasional limited explorations, have been made, serving to provoke rather than satisfy inquiry; but nothing like a thorough and systematic investigation, carried on over an extended field, has heretofore been attempted. This has resulted less, perhaps, "because men are incurious about nearer, and intent upon more distant objects,"* than from the lack, among a pioneer population, of the time and money necessary to so laborious and costly an undertaking, and of the inducements which enlightened approbation, in older communities, holds out to original research and development. Account for the fact as we may, there is no doubt that, up to this time, the world has been put in possession of too few well-authenticated facts, relating to the ancient aboriginal monuments of our country, to enable the inquirer to form any satisfactory conclusion as to their extent, number, character, origin, or purposes. Their absence has been poorly supplied by speculations, which, however ingenious they may be, have no firmer foundation than the fancy of their authors, and can serve only further to involve a subject already sufficiently obscure, and which cannot be elucidated except by a strict observance of the rules regulating scientific research.

It was under a vivid impression of the general deficiency, in this respect,—the extreme paucity of facts, and the very loose manner in which they had been presented,—that the writer of this memoir, and his associate, E. H.

* Pliny.

DAVIS, M. D., of Ohio, commenced the series of investigations, a brief and very general statement of some of the results of which is herewith presented. It is proper to remark, that these investigations were set on foot, with no view to ulterior publication, but to satisfy individual inquiry. At the outset, all preconceived notions were abandoned, and the work of research commenced, as if no speculations had been indulged in, nor any thing before been known, respecting the singular remains of antiquity scattered so profusely around us. It was concluded that, either the field should be entirely abandoned to the poet and the romancer, or, if these monuments were capable of reflecting any certain light upon the grand archeological questions connected with the primitive history of the American continent, the origin, migration, and early state of the American race, that then they should be carefully and minutely, and above all, systematically investigated.

The locality chosen for the commencement of operations, is a section of the Scioto River and Paint Creek valleys, of which the city of Chillicothe is the centre, and which possesses a deserved celebrity for its beauty, unexampled fertility, and the great number, size, and variety of its ancient remains. Situated in the middle of Southern Ohio, and possessing a mild and salubrious climate, this seems to have been one of the centres of ancient population; and, probably, no other equal portion of the Mississippi basin furnishes so rich and interesting a field for the antiquary. A glance at the accompanying "*Map of a Section of Twelve Miles of the Scioto Valley, with its Ancient Monuments,*" will fully illustrate this remark.

The plan of operations was agreed upon, and the field-work commenced, early in the spring of 1845. Subsequently, the plan was greatly extended, and the investigations were carried on, with slight interruption, up to the summer of 1847. The scope of this paper will not admit of a detailed account of the mode in which the explorations were con-

ducted, nor of their extent. It is perhaps sufficient to say, that the surveys were, for the most part, made by the writer and his associate *in person*, and that the excavations were all of them conducted under their *personal direction and supervision*. Great care was exercised in noting down, on the spot, every fact, however minute, which might be of value, in the solution of the problems of the origin and purposes of the remains under notice; and particular attention was bestowed in observing the dependencies of the position, structure, and contents of the various works in respect to each other and the general features of the country. Indeed, no exertion was spared to ensure entire accuracy, and the compass and line, the rule and the spade, were alone relied upon, in matters too often left to an approximate estimate or to conjecture.

The ancient earth-works (enclosures) personally examined and surveyed are upwards of *one hundred*, and the mounds excavated not far from *two hundred*, in number. Several thousand remains of ancient art were also collected in the progress of the investigations, chiefly from the mounds themselves. These constitute a cabinet, as valuable in its extent, as interesting in the great variety and the singular character of the illustrations which it furnishes of the condition of the domestic and minor arts of the people by whom these monuments were erected. A description of these alone would fill a volume. The most, therefore, which can be done, in the compass of this paper, is to give a brief general view of the extent of the aboriginal monuments of the West, with a few examples of certain classes, in which their predominant features are presented.

Extent and General Character of the Aboriginal Monuments of the West.

The aboriginal monuments of the Western United States, consist, for the most part, of elevations and em-

bankments of earth and stone, erected with great labor and manifest design. In connection with these, more or less intimate, are found various minor relics of art, consisting of ornaments and implements of many kinds, some of them composed of metal, but most of stone. They spread over a vast extent of country. They are found on the sources of the Alleghany, in the western part of the State of New-York, on the east; and extend thence westwardly along the southern shore of Lake Erie, and through Michigan and Wisconsin to Iowa and the Nebraska territory, on the west.* We have no record of their occurrence above the lakes, nor higher than the falls of the Mississippi. Carver mentions some on the shores of Lake Pepin; and Lewis and Clarke saw them on the Missouri river, 1000 miles above its junction with the Mississippi. They are found all over the intermediate country, and along the valley of the Mississippi to the Gulf of Mexico. They line the shores of the Gulf from Texas to Florida, and extend, in diminished numbers, into South Carolina. They occur in great numbers in Ohio, Indiana, Illinois, Wisconsin, Missouri, Arkansas, Kentucky, Tennessee, Louisiana, Mississippi, Alabama, Georgia, Florida, and Texas. They are found, in less numbers, in the western portions of New-York, Pennsylvania, and Virginia; as well as in Michigan,

* It is a fact not generally known, that there is an abundance of tumuli or mounds in the Territory of Oregon. We are not informed, however, that there are any enclosures or other works of like character with those usually accompanying the mounds of the Mississippi valley, nor whether the mounds of Oregon are generally disseminated over that territory. The only reference we have to them is contained in a paragraph in the Narrative of the United States Exploring Expedition:

"We soon reached the Butte Prairies, which are extensive and covered with tumuli or small mounds, at regular distances asunder. As far as I can learn, there is no tradition among the natives concerning them. They are conical mounds, thirty feet in diameter, about six or seven feet above the level, and *many thousands in number*. Being anxious to ascertain if they contained any relics, I subsequently visited these prairies, and opened three of the mounds, but found nothing in them but a pavement of round stones."—*U. S. E. E.*, Vol. iv. p. 313.

Iowa, North and South Carolina, and in the Mexican territory, beyond the Rio Grande del Norte. In short, they occupy the entire basin of the Mississippi and its tributaries, as also the fertile plains along the Gulf.

It is not to be understood that these remains are dispersed equally over the area here defined. They are mainly confined to the valleys of the streams, occupying the level, fertile terraces, and seldom occurring very far back from them.

Their number is well calculated to excite surprise, and has been adduced in support of the hypothesis—which has not been without its advocates—that they are most, if not all of them, natural formations, “the results of diluvial action,” modified perhaps, in a few instances, but never erected by man. Of course no such hypothesis was ever advanced by any individual who had enjoyed the opportunity of examining these remains for himself.

Some estimate may be formed of their great abundance, in certain portions of the country, by an inspection of the accompanying *Map*, which exhibits a section of twelve miles of the Scioto valley. It will be observed that not less than *ten* large groups of earth-works occur within the space designated, besides which there is a large number of mounds and lesser monuments. Twenty-four of these mounds are found within a single enclosure, *E*, three miles above the city of Chillicothe. The large works, *H* and *K*, have each not far from two miles of embankment, and enclose little less than one hundred acres. Not far from one hundred enclosures and five hundred mounds are found in Ross county, Ohio, alone; and the remains of the State may be safely estimated at ten thousand mounds and one thousand or fifteen hundred enclosures, of all sizes. Many of them are, of course, small, but cannot be omitted in an enumeration.

Nor is their magnitude less a matter of surprise than their numbers. Lines of embankment, varying in height from five to fifteen feet, and enclosing areas of from one to

fifty acres, are common; while enclosures of one hundred or two hundred acres are far from infrequent. Occasional works are found, embracing not less than five or six hundred acres.* The magnitude of the area enclosed is not, however, always an index of the amount of the labor expended in the construction of these works, or of the length of the embankment raised. A fortified hill, in Highland county, Ohio, has one mile and five-eighths of heavy embankment; yet it encloses an area of only about *forty acres*. A similar work, on the Little Miami river, in Warren county, Ohio, has upwards of four miles of embankment yet encloses but little upwards of one hundred acres. The group of works at the mouth of the Scioto river has an aggregate of at least twenty miles of embankment; yet the amount of land embraced within the walls does not exceed two hundred acres.

The mounds are of every conceivable dimension, from those of but a few feet in height and a few yards in diameter, to those which, like the celebrated one at the mouth of Grave Creek, in Virginia, measure one thousand feet in circumference by seventy feet in height; or, like the truncated pyramid at Cahokia, in Illinois, rise to the altitude of nearly one hundred feet, and measure half a mile in circumference at the base, with a level summit of several acres area. Their usual dimensions are, however, considerably less than in the examples here given. The larger number range from six to thirty feet in height, by forty to one hundred feet base.

These constructions are composed of earth or stone, taken up on the spot, or brought from localities more or less remote; though a combination of these materials, in the same work, is by no means rare. In the absence of ditches interior or exterior to the embankments, *pits* or dug holes, from which the earth for their construction was taken, are generally visible near by. These are sometimes very

* Lewis and Clarke describe one on the Missouri river which they estimated to contain six hundred acres.

broad and deep, and occasionally quite symmetrical in shape. In the vicinity of large mounds, such excavations are also common.*

A large, perhaps the larger, portion of these works are regular in outline, the square and the circle predominating. Some are parallelograms, some ellipses, others polygons, regular and irregular. The regular works are almost invariably erected on level river-terraces, great care having evidently been taken to select those least broken. The irregular works are those which partake most of the character of defences, and are usually made to conform to the nature of the ground upon which they are situated—running along the brows of hills, or cutting off the approaches to strong natural positions. The square and the circle often occur in combination, frequently communicating with each other or with irregular works, directly or by avenues consisting of parallel lines of embankment. Detached parallels are frequent. The mounds are usually simple cones in form, but they are sometimes truncated, and occasionally terraced, with graded or winding ascents to their summits. Some are elliptical, others peariform, and others squares or parallelograms, with flanking terraces. Besides these there are others, most common in the extreme northwest, which assume the forms of animals and reptiles. Another variety of remains are the causeways or "roads," and the graded descents to rivers and streams, or from one terrace to another.

As already remarked, these remains occur mainly in the valleys of the Western rivers and streams. The alluvial terraces, or "river bottoms," as they are popularly termed, were the favorite sites of the builders. The principal monuments are found where these "bottoms" are most extended, and where the soil is most fertile and easy

* These are the "wells" of Mr. Atwater and other writers on American Antiquities. It is barely possible that a few were really wells, or *secondarily* designed for reservoirs.

of cultivation. At the junction of streams, where the valleys are usually broadest and most favorable for their erection, some of the largest and most singular remains are found. The works at Marietta, at the junction of the Muskingum with the Ohio; at the mouth of Grave Creek; at Portsmouth, the mouth of the Scioto; and at the mouth of the Great Miami, are instances in point. Occasional works are found on the hill tops, overlooking the valleys, or at a little distance from them; but these are manifestly, in most instances, works of defence or last resort, or in some way connected with warlike purposes. And it is worthy of remark, that the sites selected for settlements, towns, and cities, by the invading Europeans, are often those which were the especial favorites of the mound-builders, and the seats of their heaviest population. Marietta, Newark, Portsmouth, Chillicothe, Circleville, and Cincinnati, in Ohio; Frankfort in Kentucky; and St. Louis in Missouri, may be mentioned in confirmation of the remark. The centres of population are now, where they were at the period when the mysterious race of the mounds flourished.*

The monuments throughout the entire Mississippi valley possess certain grand points of resemblance, going to establish a common origin. Whether they were contemporaneous in their erection, or constructed by a people slowly migrating from one portion of the valley to the other, under the pressure of hostile neighbors or the inducements of a more genial climate, are questions open to inquiry, and which proper investigations may satisfactorily answer. It is quite certain, however, and this fact is of importance in the consideration of these questions, that the mounds increase in magnitude and regularity, if not in numbers, as

* "The most dense ancient population existed in precisely the places where the most crowded future population will exist in ages to come. The appearance of a series of mounds generally indicates the contiguity of rich and level lands, easy communications, fish, game, and the most favorable adjacent positions."—*Flint*.

we go down the Mississippi towards the Gulf. And although between the monuments of the North and the South there is a marked contrast, in many respects; yet it would be impossible to tell, so gradually do they merge into each other, where one series terminates and the other begins. It is not impossible that future investigations may show an imperceptible transition from the more regular earth-structures of the lower Mississippi, to the symmetrical and imposing stone *teocalli* of Mexico.

The remains of which we are speaking may be divided into two grand classes, viz., ENCLOSURES, bounded by parapets, circumsvallations or walls, and simple *Tumuli* or MOUNDS.* They constitute together a single system of works; but, for purposes which will satisfactorily appear, it is preferred to classify them as above. These grand classes resolve themselves into other minor divisions: *Enclosures* are for *defence*, for *sacred* or *superstitious* and for other purposes not easily explained; and the *Mounds* are places of *sepulture*, of *sacrifice*, &c.

Enclosures.

The Enclosures, or, as they are familiarly known throughout the West, "Forts," constitute a very important and interesting class of remains. Their dimensions, and the popular opinion as to their purposes, attract to them more particularly the attention of observers. As a consequence, most that has been written upon our antiquities relates to them. Quite a number have been surveyed and described by different individuals, at different times; but no systematic examination of a sufficient number to justify any general conclusion as to their origin and purposes has hitherto been made. Accordingly we have had presented as many different conclusions as

* The term *mound* is used in this paper, for obvious reasons, in a technical sense, as synonymous with *tumulus* or *barrow*, and as distinct from embankment, rampart, etc.

there have been individual explorers ; one maintaining that all the enclosures were intended for defence, while another persists that none could possibly have been designed for any such purpose. A sufficiently extended investigation would have shown, however, that while certain works possess features demonstrating incontestably a warlike origin, others were connected with the superstitions of the builders, or designed for purposes not readily apparent in our present state of knowledge concerning them.

It has already been remarked that the square and the circle, separate or in combination, were favorite figures with the mound-builders ; and a large proportion of their works in the Scioto valley and in Ohio are of these forms. Most of the circular works are small, varying from 250 to 300 feet in diameter, while others are a mile or more in circuit. Some stand isolated, but most in connection with one or more mounds, of greater or less dimensions, or in connection with other more complicated works. Wherever the circles occur, if there be a fosse or ditch, it is almost invariably *interior* to the parapet. Instances are frequent where no ditch is discernible, and where it is evident that the earth composing the parapet was brought from a distance or taken up evenly from the surface. In the square or irregular works, if there be a fosse at all, it is *exterior* to the embankment, except in the case of fortified hills, when the earth, for the best of reasons, is usually thrown from the interior. These facts are not without their importance in determining the character and purpose of these remains. Another fact bearing directly upon the degree of knowledge possessed by the builders is, that many if not most of the circular works are *perfect circles*, and that many of the rectangular works are *accurate squares*. This fact has been demonstrated, in numerous instances, by careful admeasurements, and has been remarked in cases where the works embrace an area of many acres, and where the embankments or circumvallations are a mile or upwards in extent.

WORKS OF DEFENCE.—Those works, which are incontestably defensive, usually occupy strong natural positions. To understand fully their character and capacity for the purpose assigned to them, it is necessary to notice briefly the predominant features of the country in which they occur.

The valley of the Mississippi, from the base of the Alleghanies to the ranges of the Rocky Mountains, is a vast sedimentary basin, and owes its general aspect to the powerful action of water. Its rivers have worn their valleys deep in a vast original plain, leaving in their gradual subsidence broad terraces, marking the different eras of their history. The edges of the table lands, bordering on the valleys, are cut by a thousand ravines, presenting bluff headlands and high hills with level summits, sometimes connected by narrow isthmuses with the original table, and sometimes entirely detached. The sides of these elevations are always steep and difficult of ascent in some cases precipitous and absolutely inaccessible. The natural strength of such positions, and their susceptibility of defence, would certainly suggest them as the citadels of a rude people, having hostile neighbors or pressed by foreign invaders. Accordingly, we are not surprised at often finding these heights occupied by strong and complicated works, the design of which is indicated no less by their position than by their peculiarities of construction. In such cases it is always to be observed that great care has been exercised in their selection, and that they possess peculiar strength and adaptation for the purposes to which they were applied. While rugged and steep on most sides, they have one or more points of comparatively easy approach, in the protection of which the utmost skill of the builders has been expended. They are guarded by double overlapping walls, or a series of them, having sometimes an accompanying mound, designed perhaps as a "look-out," and corresponding to the *barbican* in the British system of

defence, of the middle ages. The usual defence is a simple parapet thrown up along and a little below the brow of the hill, varying in height and solidity as the declivity is more or less steep and difficult of access.

Other defensive works occupy the peninsulas formed by the streams, or cut off the bluff points formed by their junction with each other. In such cases a fosse and wall are carried across the isthmus, or diagonally from the bank of one stream to that of the other. In certain instances the wall is double, and extends along the bank of the stream for some distance inwardly, as if designed to prevent an enemy from turning the flank of the defence.

To understand clearly the nature of the works last mentioned, it should be remembered that the banks of the Western rivers are always steep, and, where these works are located, invariably high; the banks of the various terraces are also steep, ranging from ten to thirty and more feet in height. The rivers are constantly shifting their channels, and frequently cut their way through all the intermediate up to the earliest formed or highest terrace, presenting bold banks, inaccessibly steep, and from fifty to one hundred feet high. At such points, from which the river has in some instances receded to the distance of half a mile or more, works of this description are oftenest found.

And it is a fact of much importance and worthy of special note, that within the scope of a pretty extended observation, no work of any kind has been found occupying the latest formed terrace.* This terrace alone, except at periods of extraordinary freshets, is subject to overflow. The formation of each terrace constitutes a sort of semi-geological era in the history of the valley; and the fact that none of the works occur upon the lowest or latest formed

* This observation is confirmed by all who have given attention to the subject in the Ohio and Upper Mississippi valleys. Along the Gulf and at points on the Lower Mississippi, where the entire country is low and subject to inundation, some of the ancient monuments are invaded by the water.

of these, while they are found indiscriminately upon all the others, bears directly upon the question of their antiquity.

These general remarks will serve to introduce one or two examples of Defensive Works, which will best illustrate their general character.

Plate 2.—This fine work is situated in Butler county, Ohio, three miles below the town of Hamilton, on the west side of the Great Miami river. The hill, the summit of which it occupies, is about half a mile distant from the present bed of the river, and is not far from two hundred and fifty feet high, being considerably more elevated than any other in the vicinity. It is surrounded at all points, except a narrow space towards the north, by deep ravines, presenting steep and almost inaccessible declivities. The slope towards the north is very gradual, and from that direction the hill is easy of approach. It is covered by a primitive forest.

Skirting the brow of the hill, and generally conforming to its outline, is a wall of mingled earth and stone, having an average height of five feet by thirty-five base. It has no apparent ditch, the earth composing it, which is a stiff clay, having been for the most part taken up from the surface, without leaving any marked excavations. There are a number of pits or "dug holes," however, at various points within the walls, from which it is evident a portion of the material was obtained. The wall is interrupted by four openings or getaways, each about twenty feet wide; one fronting the north, on the approach above mentioned, and the others occurring where the spurs of the hill are cut off by the parapet, and where the declivity is least abrupt. They are all, with one exception, protected by inner lines of embankment of a most singular and intricate description. These are accurately delineated in the plan, which will best explain their character. It will be observed that the northern or great gateway, in addition to its inner maze of walls,

has an outwork of crescent shape, the ends of which approach within a short distance of the brow of the hill.

The excavations are near the gateways: none of them are more than sixty feet over, nor have they any considerable depth. Nevertheless they all, with the exception of the one nearest to gateway *S*, contain water for the greater portion if not the whole of the year. A pole may be thrust eight or ten feet into the soft mud at the bottom of those at *E*.

At *S* and *H*, terminating the parapet, are mounds of stones, thrown loosely together, eight feet in height. Thirty rods distant from gateway *N*, and exterior to the work, is a mound ten feet high, on which trees of the largest size are growing. It was partially excavated a number of years ago, and a quantity of stones taken out, all of which seemed to have undergone the action of fire.

The ground in the interior of the work gradually rises, as indicated in the section, to the height of twenty-six feet above the base of the wall, and overlooks the entire adjacent country. In the vicinity of this work, are a number of others occupying the valley—no less than six, of large size, occurring within a distance of six miles down the river.

The character of this structure is too obvious to admit of doubt. The position which it occupies is naturally strong, and no mean degree of skill is employed in its artificial defences. Every accessible avenue is strongly guarded. The principal approach, the only point of easy access, or capable of successful assault, is rendered doubly secure. A mound, used perhaps as an alarm post, is placed at a short distance in advance, and a crescent wall crosses the isthmus, leaving but narrow passages between its ends and the steeps on either hand. Next comes the principal wall of the enclosure. In event of an attack, even though both these defences were forced, there still remained a series of walls so complicated as inevitably to distract and bewilder the assailants, thus giving a marked advantage to the defenders. This advantage may have been regarded as more consider-

able than we, in our ignorance of the military system of the ancient people, would suppose. From the manifest judgment with which their military positions were chosen, as well as from the character of their entrenchments, so far as we understand them, it is safe to conclude that all parts of this work were the best calculated to secure the objects of the builders, under the mode of attack and defence then practised. On the assumption that the embankments of this work were crowned with palisades, it is easy to comprehend that it afforded entire security against any assault by rude or savage foes.

The coincidences between the guarded entrances of this and similar works throughout the West, and those of the ancient Mexican defences, are singularly striking. The wall on the eastern side of the Tlascallan territories, mentioned by Cortez and other early writers, was six miles long, having a single entrance thirty feet wide, which was formed as shown in the supplementary plan *A*. The ends of the walls overlapped each other in the form of semicircles, having a common centre.*

The work above described may be taken as a very fair example of this class of structures, although nearly every work has interesting individual features, which can only be exhibited in connection with plans of the works themselves. Many are of vast dimensions; indeed, the works of greatest magnitude are those which are most clearly of defensive

* "On leaving the territory (of Clempoallan) I met with a large wall of dry stone, about nine feet in height, which extended across from one mountain to the other: it was twenty feet in thickness, and surmounted throughout its whole extent by a breastwork a foot and a half thick, to enable them to fight from the top of the wall. There was but one entrance, about ten paces wide, where one portion of the wall was encircled by the other, in the manner of a ravelin, for about forty paces. Thus the entrance was circuitous and not direct. Having inquired into the origin of this wall, I was informed it was erected on account of the place being the frontiers of the province of Tlascalla, whose inhabitants were enemies of Montezuma and always at war with him."
—*Second Letter of Cortez*; see also *Bernal Dias, De Solis, and Clavigero*.

origin. A fortified hill in the vicinity of Chillicothe embraces one hundred and forty acres within its walls; and another military work—most probably a fortified village—on the banks of the North Fork of Paint Creek, five miles from Chillicothe, has an area of one hundred and twenty-seven acres. To appreciate fully the judgment displayed in the choice of position, and the skill exhibited in defence, a minute examination of a series of these structures is necessary. No one can rise from such an examination without being convinced that the race by whom they were erected possessed no inconsiderable knowledge of the science of defence—a degree of knowledge much superior to that known to have been possessed by the North American tribes previous to the discovery by Columbus, or indeed, subsequent to that event. Their number and magnitude must also impress the inquirer with enlarged notions of the power of the people commanding the means for their construction, and whose numbers required such extensive works for their protection. It is not impossible that they were, to a certain extent, designed to embrace cultivated fields, so as to furnish the means of sustenance to their defenders in event of a protracted siege. There is no other foundation, however, for this suggestion than that furnished by the size of some of these defensive enclosures. The population finding shelter within their walls must have been exceedingly large, if their dimensions may be taken as the basis of a calculation.

The vast amount of labor necessary to the erection of most of these works precludes the notion that they were hastily constructed to check a single or unexpected invasion. On the contrary there seems to have existed a *system of defences*, extending from the sources of the Alleghany in New-York diagonally across the country, through central Ohio to the Wabash. Within this range, those works which are regarded as defensive are largest and most numerous. If an inference may be drawn from this

fact, it is that the pressure of hostilities was from the northeast; or that, if the tide of migration flowed from the south, it received its final check upon this line. On the other hypothesis, that in this region originated a semi-civilization which subsequently went southward, constantly developing itself in its progress, until it attained its height in Mexico, we may suppose from this direction came the hostile savage hordes, before whose incessant attacks the less warlike mound-builders gradually receded, or beneath whose exterminating cruelty they entirely disappeared—leaving these monuments alone to attest their existence, and the extraordinary skill with which they defended their altars and their homes. Upon either assumption it is clear that the contest was a protracted one, and that the race of the mounds were for a long period constantly exposed to attack. This conclusion finds its support in the fact that, in the vicinity of those localities, where, from the amount of remains, it appears the ancient population was most dense, we almost invariably find one or more works of a defensive character, furnishing ready places of resort in times of danger. We may suppose that a state of things existed somewhat analogous to that which attended the advance of our pioneer population, when every settlement had its little fort, to which the settlers flocked in case of alarm or attack.

It may be suggested that there existed among the mound-builders a state of society something like that which prevailed amongst the Indians; that each tribe had its separate seat, maintaining an almost constant warfare against its neighbors, and, as a consequence, possessing its own "castle," as a place of final resort when invaded by a powerful foe. Apart from the fact, however, that the Indians were hunters, averse to labor, and not known to have constructed any works approaching, in skilfulness of design or in magnitude, those under notice, there is almost positive evidence that the mound-builders were an agricul-

tural people, considerably advanced in the arts, and possessing great uniformity, throughout the whole territory which they occupied, in manners, habits, and religion,—a uniformity sufficiently marked to identify them as a single people, having a common origin, common modes of life, and as a consequence, common sympathies, if not a common and consolidated government.

SACRED WORKS.—The structure, no less than the form and position, of a large number of the earth-works of the West, and more particularly of the Scioto valley, render it clear that they were erected for other than defensive purposes.* The small dimensions of most of the circles, the occurrence of the ditch interior to the embankment, and the fact that many of them are completely commanded by adjacent heights, may be mentioned as sustaining this conclusion. We must seek, therefore, in the connection in which these works are found, and in the character and contents of the mounds, if such there be, within their walls for the secret of their origin. And it may be observed, that it is here we find evidence still more satisfactory and conclusive than furnished by the small dimensions of these works, or the position of the ditch, that they were not intended for defence. Thus, when we find enclosures containing a number of mounds, all of which it is capable of demonstration were *religious* in their purposes, or in some way connected with the superstitions of the people who built them, the conclusion is irresistible that the enclosure

* It seems incredible that many well-informed men, who have examined some of the small circular and elliptical works of the West, should have fallen into the palpable error of supposing them defensive in their origin. Major Long (*Second. Exp.* Vol. i., p. 54) describes some petty works in the vicinity of Piqua, Ohio, consisting of a number of small circles, as of undoubted war-like origin, applying to them the terms of military technology. One of these circles, which he regards as a "*redoubt*," is 43 feet in diameter, and has its ditch *interior* to the wall! A famous defence, truly, contrasted with the fortified hills already described!

itself was also deemed sacred, and thus set apart as "*tabooed*" or consecrated ground—especially where it is obvious, at first glance, that it possesses none of the requisites of a military work. But it is not to be concluded that those enclosures alone, which contain mounds of the description here named, were designed for sacred purposes. We have reason to believe that the religious system of the mound-builders, like that of the Mexicans, exercised among them a great, if not a controlling influence. Their government may have been, for aught we know, a government of the priesthood; one in which the priestly and civil functions were jointly exercised, and one sufficiently powerful to have secured in the Mississippi valley, as it did in Mexico, the erection of many of those vast monuments, which for ages will continue to challenge the wonder of men. There may have been certain superstitious ceremonies, having no connection with the purposes of the mounds, carried on in enclosures specially dedicated to them. There are several minor enclosures within the great defensive work already referred to, on the banks of the North Fork of Paint Creek, the purposes of which would scarcely admit of doubt, even though the sacred mounds which they embrace were wanting. It is a conclusion which every day's investigation and observation has tended to confirm, that most, perhaps all the earth-works, not manifestly defensive in their character, were in some way connected with the superstitious rites of the builders, though in what manner, it is, and perhaps ever will be, impossible satisfactorily to determine.

What dim light analogy sheds upon this point goes to sustain this conclusion. The British Islands only afford works with which any comparison can safely be instituted. The "ring forts" of the ancient Celts are nearly identical in form and structure with a large class of remains in our own country; and these are regarded by all well-informed British antiquaries as strictly religious in their origin, or connected with the rites of the ancient Druidical system.

This conclusion is not entirely speculative, but rests in a great degree upon traditional and historical facts. The late Sir R. C. Hoare, author of "Ancient Wiltshire" (the most scientific as also the most splendid antiquarian work ever issued from the British press), regarded the occurrence of the *fosse*, interior to the wall, in a portion of the British works, as precluding the supposition of a military, and establishing their religious origin.

The character of these works has already been briefly indicated. They are generally regular in their structure, and occupy the broad and level river-bottoms, seldom occurring upon the table-lands, or where the surface is undulating or broken. Their usual form is that of the square or the circle; sometimes they are slightly elliptical. Occasionally we find them isolated, but oftener in groups. The greater number of the circles are of small size, having a nearly uniform diameter of two hundred and fifty or three hundred feet, with the ditch invariably interior to the wall. These have always a single gateway, opening oftener towards the east, but by no means observing a fixed rule in this respect. It frequently happens that they have one or more small mounds interior to their walls, of the class denominated *sacrificial*. These small circles occasionally occur within larger works of a defensive character. Apart from these, numerous little circles, from thirty to fifty feet in diameter, are observed in the vicinity of large works, consisting of a very light embankment of earth, and destitute of a gateway or entrance. It has been suggested that these are the remains of the ancient lodges or of other buildings. The accounts which we have of the traces left of the huts of the Mandans and other Indian tribes, at their deserted villages, render this supposition not improbable. It sometimes happens that we find small circles around the bases of large mounds; these probably cannot be regarded as of the same character with that numerous class already described.

The larger circles are oftenest found in combination with rectangular works, connecting with them directly or by avenues. Some of these are of large size, embracing fifty or more acres. They seldom have a ditch; but whenever it occurs, it is interior to the wall. As in the case of the squares or rectangular works with which they are attached, (and which, it is believed, never have ditches, exterior or interior,) the walls are usually composed of earth taken up evenly from the surface, or from large pits in the neighborhood. Evident care seems in all cases to have been exercised, in procuring the material, to preserve the surface of the adjacent plain smooth, and as far as possible unbroken. This fact is in itself almost conclusive against the supposition of a defensive design, especially as we have abundant evidence that the mound-builders understood perfectly the value of the external fosse in their works of defence. The walls of these works are, for the most part, comparatively slight, varying from three to seven feet in height. Sometimes they are quite imposing; as in the case of the great circle at Newark, Licking county, Ohio, where, at the entrance, the wall from the bottom of the ditch has a vertical height of not far from thirty feet. The square or rectangular works attending these large circles are of various dimensions. It has been observed, however, that certain groups are marked by a great uniformity of size. Five or six of these now occur to the writer, placed at long distances asunder, which are *exact* squares, each measuring one thousand and eighty feet side—a coincidence which could not possibly be accidental, and which must possess some significance. It certainly establishes the existence of some standard of measurement among the ancient people, if not the possession of some means of determining angles. The rectangular works have almost invariably gateways at the angles and midway on each side, each of which is covered by a small interior mound or elevation. In some of the larger structures the openings are

more numerous. A few of this description of remains have been discovered which are octagonal. One of large size, in the vicinity of Chillicothe, has the alternate angles coincident with each other, and the sides equal.

Another description of works, probably akin to those here described, are the parallels, consisting of light embankments, seven or eight hundred feet in length and sixty or eighty apart.

Indeed, so various are these works, and so numerous their combinations, that it is impossible to convey any accurate conception of them, without entering into a minuteness of detail and an extent of illustration utterly beyond the limits of this paper. They are invested with singular interest, alike from their peculiar form and the character and contents of the mounds which they enclose. If we are right in the assumption that they are of sacred origin, and were the temples and consecrated grounds of the ancient people, we can, from their number and extent, form some estimate of the devotional fervor or superstitious zeal which induced their erection, and the predominance of the religious sentiment among their builders.

The magnitude of some of these structures is, perhaps, the strongest objection that can be urged against the position here assigned them. It is difficult to comprehend the existence of religious works, extending, with their attendant avenues, like those near Newark in Ohio, over an area of little less than *four square miles!* We can find their parallels only in the great temples of Abury and Stonehenge in England, and Carnac in Brittany, and associate them with a mysterious worship of the Sun, or an equally mysterious Sabianism. Within the mounds enclosed in many of these sacred works, we find the altars upon which glowed their sacrificial fires, and where the ancient people offered their propitiations to the strange gods of their primitive superstition. These altars also furnish us with the too unequivocal evidence that the ritual of the mound-

builders, like that of the Aztecs, was disfigured by sanguinary observances, and that human sacrifices were not deemed unacceptable to the divinity of their worship. It is of course impossible in this connection to go into the details of the evidence upon this or kindred points of interest.

The Mounds.

Intimately connected with the interesting works already described are the mounds; of these, however, little has hitherto been known. The popular opinion, based, in a great degree, upon the well ascertained purposes of the barrows and tumuli occurring in certain parts of Europe and Asia, is, that they are simple monuments, marking the last resting-place of some great chief or distinguished individual, among the tribes of the builders. Some have supposed them to be the cemeteries, in which were deposited the dead of a tribe or a village, for a certain period, and that the size of the mound is an indication of the number inhumed. Others, that they mark the sites of great battles, and contain the bones of the slain. On all hands the opinion has been entertained, that they were devoted to sepulture alone. This received opinion is not, however, sustained by the investigations set on foot by the writer and his associate. The conclusion to which their observations have led, is, that the mounds were constructed for several grand and dissimilar purposes; or rather, that they are of different classes;—the conditions upon which the classification is founded being three in number—namely: position, structure, and contents. In this classification, we distinguish—

1st. Those mounds which occur in, or in the immediate vicinity of enclosures, which are stratified, and contain altars of burned clay or stone, and which were places of sacrifice, or in some way connected with religious rites and ceremonies.

2d. Those which stand isolated, or in groups, more or

less remote from the enclosures, which are not stratified, which contain human remains, and which were the burial-places and monuments of the dead.

3d. Those which contain neither altars nor human remains, and which were places of observation, or the sites of structures.

These classes are broadly marked in the aggregate; but, in some instances, they seem to run into each other. Mounds of this mixed character, as well as those which, under our present condition of knowledge respecting them, do not seem to indicate any clear purpose, have been denominated *anomalous*. Of one hundred mounds excavated, sixty were altar or sacrificial mounds, twenty sepulchral, and twenty either places of observation or *anomalous* in their character. Such, however, is not the proportion in which they occur. From the fact that the mounds of sacrifice are most interesting and most productive in relics, the largest number excavated has been of that class. In the Scioto valley the mounds are distributed between the three classes specified, in very nearly equal proportions; the mounds of observation and the anomalous mounds constituting together about one third of the whole number.

Mounds of Sacrifice.—The general characteristics of this class of mounds are :

1st. That they occur only within, or in the immediate vicinity of enclosures or sacred places.*

2d. That they are stratified.

3d. That they contain symmetrical altars of burned clay or stone, on which are deposited various remains, which, in all cases, have been more or less subjected to the action of fire.

Of the whole number of mounds of this class which

* It is not assumed to say that all the mounds occurring within enclosures are altar or sacrificial mounds. On the contrary, some are found which, to say the least, are *anomalous*, while others were clearly the *sites of structures*.

were examined, *four* only were found to be exterior to the walls of enclosures, and these were but a few rods distant from the ramparts.

The fact of stratification, in these mounds, is one of great interest and importance. This feature has heretofore been remarked, but not described with proper accuracy; and has consequently proved an impediment to the recognition of the artificial origin of the mounds, by those who have never seen them. The stratification, so far as observed, is not horizontal, but always conforms to the convex outline of the mound.* Nor does it resemble the stratification produced by the action of water, where the layers run into each other, but is defined with the utmost distinctness, and always terminates upon reaching the level of the surrounding earth. That it is artificial will, however, need no argument to prove, after an examination of one of the mounds in which the feature occurs; for, it would be difficult to explain, by what singular combination of "igneous and aqueous" action, stratified mounds were always raised over symmetrical monuments of burned clay or of stone.

The altars, or basins, found in these mounds, are almost invariably of burned clay, though one or two of stone have been discovered. They are symmetrical, but not of uniform size and shape. Some are round, others elliptical, and others square, or parallelograms. Some are small, measuring barely two feet across, while others are fifty feet

* Some of the mounds, on the lower Mississippi, are horizontally stratified, exhibiting alternate layers, from base to summit. These mounds differ in form from the conical structures here referred to, and were doubtless constructed for a different purpose. Some are represented as composed of layers of earth, two or three feet thick, each one of which is surmounted by a burned surface, which has been mistaken for a rude brick pavement. Others are composed of alternate layers of earth and human remains. Their origin is doubtless to be found in the annual bone burials of the Cherokees and other southern Indians, of which accounts are given by Bartram and other early writers. It is not impossible that, in rare instances, natural elevations have been modified by art so as to serve some of the purposes for which mounds were erected. In such the natural stratification would be preserved.

long by twelve and fifteen wide. The usual dimensions are from five to eight feet. All appear to have been modelled of fine clay, brought to the spot from a distance, and rest upon the original surface of the earth. In a few instances, a layer or small elevation of sand had been laid down, upon which the altar was formed. The elevation of the altars, nevertheless, seldom exceeds a foot or twenty inches, above the adjacent level. The clay of which they are composed is usually burned hard, sometimes to the depth of ten, fifteen, and even twenty inches. This is hardly to be explained, by any degree or continuance of heat, though it is manifest that in some cases the heat was intense. On the other hand, a number of these altars have been noticed, which are very slightly burned; and such, it is a remarkable fact, are destitute of remains.

The characteristics of this class of mounds will be best explained, by reference to the accompanying illustrations. It should be remarked, however, that no two are alike in all their details.

The mound, a section of which is here given, occurs in "Mound City," a name given to a group of *twenty-six* mounds, embraced in one enclosure, on the banks of the Scioto river, three miles above the town of Chillicothe. It is seven feet high by fifty-five feet base. A shaft, five feet square, was sunk from its apex, with the following results:—

1st. Occurred a layer of coarse gravel and pebbles, which appeared to have been taken from deep pits, surrounding the enclosure, or from the bank of the river. This layer was one foot in thickness.

2d. Beneath this layer of gravel and pebbles, to the depth of two feet, the earth was homogeneous, though slightly mottled, as if taken up and deposited in small loads, from different localities. In one place appeared a deposit of dark colored, surface loam, and by its side, or covering it, there was a mass of the clayey soil of greater depth.

The outlines of these various deposits could be distinctly traced.

3d. Below this deposit of earth, occurred a thin and even layer of fine sand, a little over an inch in thickness.

4th. A deposit of earth, as above, eighteen inches in depth.

5th. Another stratum of sand, somewhat thinner than the one above mentioned.

6th. Another deposit of earth, one foot thick; beneath which was—

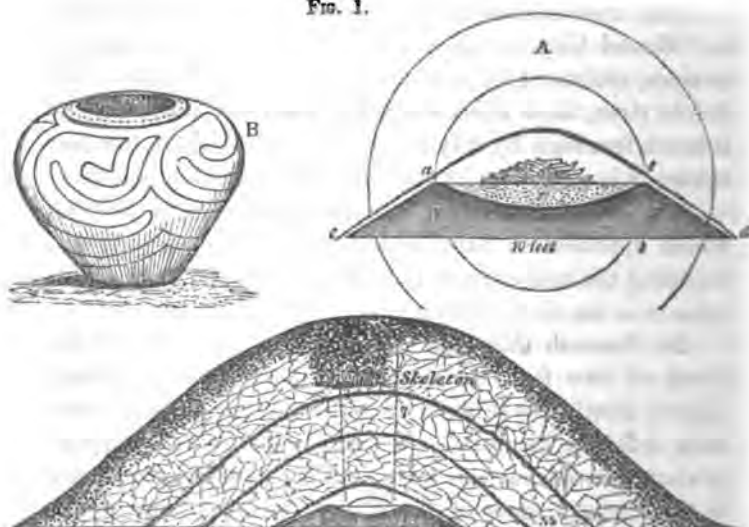
7th. A third stratum of sand; below which was—

8th. Still another layer of earth, a few inches in thickness; which rested on—

9th. An altar, or basin, of burned clay.

This altar was perfectly round. Its form and dimensions are best shown by the supplementary plan, and section A. F F, is the altar, measuring from *c* to *d*, nine feet;

FIG. 1.



Horizontal scale of section *fifteen* feet, and the vertical *six* feet, to the inch.

from *a* to *e*, five feet; height from *b* to *e*, twenty inches; dip of curve *a r e*, nine inches. The sides *c a*, *e d*, slope regularly, at a given angle. The body of the altar is burned throughout, though in a greater degree within the basin, where it was so hard as to resist the blows of a heavy hatchet, the instrument rebounding as if struck upon a rock. The basin, or hollow of the altar, was filled even full with fine dry ashes, intermixed with which were some fragments of pottery, of an excellent finish and elegant model, ornamented with tasteful carvings on the exterior. One of the vases, taken in fragments from this mound, has been very nearly restored. The sketch *B*, presents its outlines, and the character of its ornaments. Its height is six, its greatest diameter eight inches. The material is hardly distinguishable from that composing the pottery of the ancient Peruvians; and in respect of finish, it is fully equal to the best Peruvian specimens. A few convex copper discs, much resembling the bosses used upon harnesses, were also found.

Above the deposit of ashes, and covering the entire basin, was a layer of silvery or opaque mica, in sheets, overlapping each other; and, immediately over the centre of the basin, was heaped a quantity of burned human bones, probably the amount of a single skeleton, in fragments. The position of these is indicated by *c* in the section. The layer of mica and calcined bones, it should be remarked, to prevent misapprehension, were peculiar to this individual mound, and were not found in any other of the class.

It will be seen, by the section, that at a point about two feet below the surface of the mound, a human skeleton was found. It was placed a little to the left of the centre, with the head to the east, and was so much decayed as to render it impossible to extract a single bone entire. Above the skeleton, as shown in the section, the earth and outer layer of gravel and pebbles were broken up and

intermixed. Thus while on one side of the shaft the strata were clearly marked, on the other they were confused. And, as this was the first mound of the class excavated, it was supposed, from this circumstance, that it had previously been opened by some explorer, and it had been decided to abandon it when the skeleton was discovered. Afterwards the matter came to be fully understood. No relics were found with this skeleton.

It is a fact well known, that the modern Indians, though possessing no knowledge of the origin or objects of the mounds, were accustomed to regard them with some degree of veneration. It is also known, that they sometimes buried their dead in them, in accordance with the almost invariable custom which leads them to select elevated points, and the brows of hills, as their cemeteries. That their remains should be found in the mounds, is therefore a matter of no surprise. They are never discovered at any great depth, not often more than eighteen inches or three feet below the surface. Their position varies in almost every case: most are extended at length, others have a sitting posture, while others again seem to have been rudely thrust into their shallow graves without care or arrangement. Rude implements of bone and stone, and coarse vessels of pottery, such as are known to have been in use among the Indians at the period of the earliest European intercourse, occur with some of them, particularly with those of a more ancient date; while modern implements and ornaments, in some cases of European origin, are found with the recent burials. The necessity therefore of a careful and rigid discrimination, between these deposits and those of the mound-builders, will be apparent. From the lack of such discrimination, much misapprehension and confusion have resulted. Silver crosses, gun-barrels, and French dial-plates, have been found with skeletons in the mounds; yet it is not to be concluded that the mound-builders were Catholics, or used

fire-arms, or understood French. Such a conclusion would, nevertheless, be quite as well warranted, as some which have been deduced from the absolute identity of certain relics, taken from the mounds, with articles known to be common among the existing tribes of Indians. The fact of remains occurring in the mounds, is in itself hardly presumptive evidence that they pertained to the builders. The conditions attending them can alone determine their true character. As a general rule, to which there are few exceptions, the only authentic and undoubted remains of the mound-builders, are found directly beneath the apex of the mound, on a level with the original surface of the earth; and it may be safely assumed, that whatever deposits occur near the surface of the mounds are of a date subsequent to their erection.

In the class of mounds now under consideration we have data which will admit of no doubt, whereby to judge of the origin, as well as the relative periods, of the various deposits found in them. If the stratification already mentioned as characterizing them, is unbroken and undisturbed, if the strata are regular and entire, it is certain that whatever occurs beneath them, was placed there at the period of the construction of the mound. And if, on the other hand, these strata are broken up, it is equally certain that the mound has been disturbed, and new deposits made, subsequent to its erection. It is in this view, that the fact of stratification is seen to be important, as well as interesting; for it will serve to fix, beyond all dispute, the origin of many singular relics, having a decisive bearing on some of the leading questions connected with American Archæology. The thickness of the exterior layer of gravel, &c., in mounds of this class, varies with the dimensions of the mound, from eight to twenty inches. In a very few instances, the layer, which may have been designed to protect the form of the mound, and which purpose it admirably subserves, is entirely wanting. The number and

relative position of the sand strata are variable; in some of the larger mounds, there are as many as six of them, in no case less than one, most usually two or three.

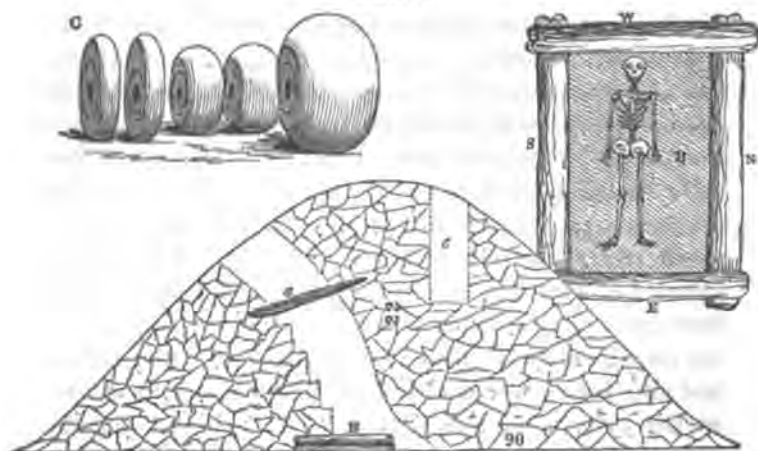
In one case which fell under our observation, and in another, of which we have an account from the person who discovered it, the altar was of stone. This altar was elevated two and one-half feet above the original surface of the earth, and was five feet long by four broad. It was a simple elevation of earth packed hard, and was faced, on every side and on top, with slabs of stone of regular form, and nearly uniform thickness. They were laid evenly, and, as a mason would say, "with close joints;" and though uncut by any instrument, the edges were straight and smooth. The stone is "the Waverly sandstone," underlying the coal series, thin strata of which cap every hill. This stone breaks readily, with a rectangular fracture, and hence the regularity of the slabs is not so much a matter of surprise. This altar bore the marks of fire, and fragments of the mound-builders' ornaments were found on and around it. What had originally been deposited there was probably removed by the modern Indians, who had opened the mound and buried one of their dead on the altar.

Mounds of this class are most fruitful in relics of the builders. On the altars have been found, though much injured and broken up by the action of fire, instruments and ornaments of *silver, copper, stone, and bone*; beads of silver, copper, *pearls*, and shell; spear and arrow heads of flint, quartz, garnet, and *obsidian*; fossil teeth of the shark; teeth of the alligator; marine shells; galena; sculptures of the human head, and of numerous animals; pottery of various kinds, and a large number of interesting articles, some of which evince great skill in art. No description of these can be given here.

. *Mounds of Sepulture.*—The mounds of sepulture

stand apart from the enclosures, and, in their average dimensions, greatly exceed those of the first class. The celebrated mound at Grave Creek is of this class. They lack the gravel and sand strata, which characterize those already described, and are destitute of "altars." They invariably cover a skeleton (sometimes more than one, as at Grave Creek), which, at the time of its interment, was enclosed in a rude framework of timber, or enveloped in bark or coarse matting, the traces, in some instances the very *casts* of which, remain. The structure of a single mound of this class will serve to exhibit their peculiarities.

FIG. 2.



The mound, of which the above is a section,* stands on the third "bottom" or terrace of the Scioto river, six miles below the town of Chillicothe. There are no enclosures nearer than a mile; though there are three or four other mounds, of smaller size, on the same terrace, within a few hundred yards. The mound is twenty-two feet high, by ninety feet base. The principal excavation was made

* Horizontal scale thirty feet, and vertical fifteen feet, to the inch.

(as represented by the dotted lines in the section), from the west side, commencing at about one-third of the height of the mound from the top. At ten feet below the surface, occurred a layer of charcoal (*a*), not far from ten feet square, and from two to six inches in thickness, slightly inclined from the horizontal, and lying mostly to the left of the centre of the mound. The coal was coarse and clear, and seemed to have been formed by the sudden covering up of the wood while burning, inasmuch as the trunks and branches retained their form, though entirely carbonized, and the earth immediately above as well as below, was burned of a reddish color. Below this layer the earth became much more compact and difficult of excavation. At the depth of twenty-two feet, and on a level with the original surface, immediately underneath the charcoal layer, and, like that, somewhat to one side of the centre of the mound, was a rude timber framework (*B*), now reduced to an almost impalpable powder, but the *cast* of which was still retained in the hard earth. This enclosure of timber, measured from outside to outside, was nine feet long by seven wide, and twenty inches high. It had been constructed of logs laid one on the other, and had evidently been covered with other timbers, which had sunk under the superincumbent earth, as they decayed. The bottom had also been covered with bark, matting, or thin slabs—at any rate, a whitish stratum of decomposed material remained, covering the bottom of the parallelogram. Within this rude coffin, with its head to the west, was found a human skeleton, or rather the remains of one; for scarcely a fragment as long as one's finger could be recovered. It was so much decayed that it crumbled to powder under the slightest touch. Around the neck of the skeleton, forming a triple row, and retaining their position, as originally strung and deposited with the dead, were several hundred beads, made of ivory, or the tusks of some animal (*C*). Several of these still retain their polish, and bear

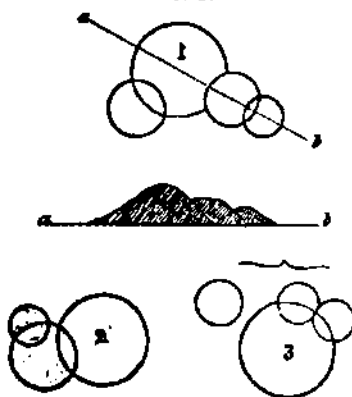
marks which seem to indicate that they were turned in some machine, instead of being carved by hand. A few laminae of mica were also discovered, which completed the list of articles found with this skeleton. The feet of the skeleton were nearly in the centre of the mound. A drift beyond it developed nothing new, nor was a corresponding layer of charcoal found on the opposite side of the mound. It is clear, therefore, that the tumulus was raised over this single skeleton. In the case of a mound of this class, opened at Gallipolis, on the Ohio river, the chamber enclosing the skeleton was found just below the original surface,—which can always be detected by a strongly marked line and the uniform drab color of the earth beneath it.

The layer of charcoal is not uniformly found in mounds of this class, though it is a feature of frequent occurrence. It would seem to indicate that sacrifices were made for the dead, or that funeral rites of some kind were celebrated. The fire, in every case, was kept burning for a very brief space, as is shown by the lack of ashes, and the slight traces of its action left on the adjacent earth. That it was suddenly heaped over, is also proved by the facts already presented.

Bracelets of copper and silver; beads of bone and shell; mica plates and ornaments; stone instruments of various kinds, some of which are identical with those found in mounds of the first class, &c. &c., are found with the skeletons. In every instance falling within our observation, the skeleton has been so much decayed, that any attempt to restore the skull, or indeed any portion of it, was hopeless. Considering that the earth around these skeletons is wonderfully compact and dry, and that the conditions for their preservation were exceedingly favorable, while, in fact, they are so much decayed, we may form some estimate of their remote antiquity. In the barrows and cromlechs of the ancient Britons, entire and well-preserved skeletons are found, although having an undoubted antiquity of 1800 years.

In some of the sepulchral mounds, as has already been stated, the sarcophagus, if we so please to term it, was omitted by the builders, the dead body having been simply enveloped in bark or matting. Perhaps this course was most frequently pursued. In these cases the original surface appears to have been carefully smoothed and levelled, for a space ten or twenty feet square, which space was covered with bark. Upon this was deposited the dead body, and, by its side, such personal ornaments or implements as were deemed proper, the whole being covered with another layer of bark, and the tumulus raised above. Instances have occurred in which it is clear that burial by *incremation* was made, but these are comparatively rare. In the celebrated mound at Grave Creek, two sepulchral chambers were discovered, one at the base, another at a higher point. The lower one contained two skeletons, and the upper but one. The mound, in this respect, is somewhat extraordinary. It may be conjectured, with some appearance of reason, that it contained the bones of the family of a chieftain, or distinguished individual, among the builders. It is common to find two or three, sometimes four or five, sepulchral mounds, in a group. In such cases, it is always to be remarked, that one of the group is much the

FIG. 3.



largest, twice or three times the dimensions of any of the others, and that the smaller ones are arranged around its base, generally joining it, thus evincing an intended dependence and close connection between them. Plans of three groups of this description are given in the annexed figures. May we not conclude that such a group is the tomb

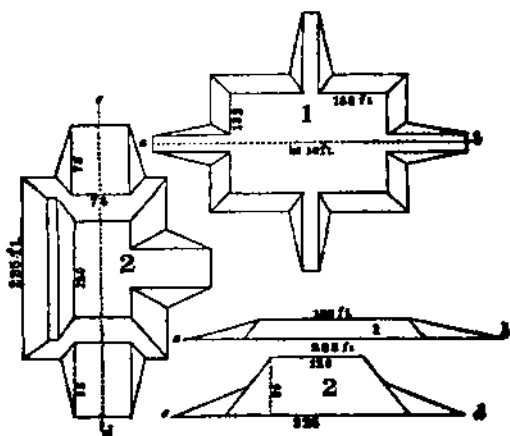
of a family—the principal mound covering the head of the same, the smaller ones its various members? In the Grave Creek mound, it is possible that, instead of building a new mound, an additional chamber was constructed upon the summit of the one already raised—a single mound being thus made to occupy the place of a group.

Mounds of Observation.—On the tops of the hills and on the jutting points of the table lands bordering the valleys in which the earth-works of the West are found, mounds occur in considerable numbers. The most elevated and commanding positions are frequently crowned by them, suggesting at once the use to which some of the cairns of the Celts were applied—that of signal or alarm posts. On a high hill, opposite Chillicothe, six hundred feet in height, the loftiest in the whole region, one of these mounds is placed. A fire built upon it would be visible for a distance of fifteen or twenty miles up and down the river, as well as for a number of miles up the valley of Paint Creek—a broad and fertile valley, abounding in ancient monuments. Between Chillicothe and Columbus, a distance of forty-five miles, there are about twenty mounds, so placed that, it is believed, if the country were cleared of forests, signals by fire could be transmitted along the whole line in a few minutes. Our examination of this description of mounds, from a variety of causes, has been comparatively limited. So far as our personal observation goes, they contain few of the remains found in the two classes of mounds just described; and, although there are traces of fire around many of them, the marks are not sufficiently strong to justify fully the inferences that they were *lookouts* and fires used as the signals. Indeed, it is certain that, in some cases, they contain human remains, undoubtedly those of the mound-builders. It is possible that a portion, perhaps all, were devoted to sepulture, another portion to observation, or that some answered a double purpose. This is

a point which remains to be settled by more extended observations.*

There is another description of mounds which should properly be here mentioned. Their purposes admit of no doubt. They consist of pyramidal structures, or "elevated squares," and are found almost invariably within enclosures.

FIG. 4.



They are sometimes of large dimensions. Those at Marietta are fair examples of the class, and No. 1, Fig. 4, exhibits their structure and dimensions. No. 2, is an ele-

* Upon many prominent and commanding points of the hills, are to be observed traces of large and long-continued fires. These are vulgarly supposed to be the remains of "furnaces," from the amount of scoriaceous material scattered upon the surface. The fires appear to have been built upon heaps of stones, which are broken up, and sometimes partially vitrified, and in all cases exhibit the marks of intense and protracted heat.

Lighting fires as signals, upon elevated positions, is an old and almost universal practice. When Lieut. Fremont penetrated into the fastnesses of Upper California, where his appearance created great alarm among the Indians, he observed this primitive telegraph system in operation. "Columns of smoke rose over the country at scattered intervals—signals by which the Indians here, as elsewhere, communicate to each other that enemies are in the country. It is a signal of ancient and very universal application among barbarians."—*Fremont's Second Expedition*, p. 220.

vation of a similar mound, on the banks of Walnut Bayou, Madison Parish, Louisiana, and is introduced incidentally, to show the connection between the monuments of the lower Mississippi and Mexico, and those of the Ohio valley. None of these, so far as examined, contain remains. They were obviously designed as the sites of temples or of structures which have passed away, or as "high places" for the performance of certain ceremonies. Perhaps they deserve to occupy a place by themselves, in the classification here attempted.

Anomalous Mounds.—It will be impossible, within the compass of this paper, to enter into the details which a proper notice of these mounds would require. Such a notice would necessarily involve a description of almost every one thus characterized. A single mound was examined which contained an altar, and also a skeleton with its rude enclosure of wood. It was elliptical in shape, measuring one hundred and sixty feet in length, sixty in width, and twenty-five in height. The altar occupied one centre of the ellipse, the chamber of the skeleton the other. Of the twenty-six mounds embraced in "Mound City," six are of very small dimensions, not exceeding three feet in height. Within each of these was deposited a quantity of burned human bones in fragments, not exceeding in any case the amount of a single skeleton. No relics were found with these, though in one instance a fragment of an altar, a couple of inches square, was observed with the bones, leading to the conclusion that they were taken up from the altars, in the adjacent larger mounds, and afterwards finally deposited here.

General Observations.—Whether these classes are maintained throughout the West, is a question which a systematic examination, carried on over a wide field, alone can determine. In almost every case falling within our knowledge, where mounds have been thoroughly examined by competent persons, some of the features here marked

have been noticed. It is conjectured, that the "brick hearths," of which mention has occasionally been made, were the "altars," already described as belonging to a certain class of mounds. Nothing is more likely than that some of them were left uncovered by the builders, and subsequently hidden by natural accumulations, to be again exposed by the invading plough, or the recession of the banks of streams. The indentations occasioned by the passage of roots across them, or by other causes, would naturally suggest the notion of rude brick hearths.

REMAINS FOUND IN THE MOUNDS: *Implements, Ornaments, Sculptures, &c.*—The condition of the ordinary arts of life, amongst the people which constructed the singular and often imposing monuments we have been contemplating, furnishes a prominent and interesting subject of inquiry. How far the conclusion, already hypothetically advanced, that the vast amount of labor expended upon these works, their number, and the regularity and design which they exhibit, denote a numerous people, considerably advanced from the nomadic, hunter, or radically savage state,—how far this conclusion is sustained by the character of the minor remains, of which we shall now speak, remains to be seen.

It has already been remarked that the mounds are the principal depositories of ancient art, and that in them we must seek for the only authentic remains of the builders. In the observance of a practice almost universal among barbarous or semi-civilized nations, the mound-builders deposited various articles of use and ornament with their dead. They also, under the prescriptions of their religion, or in accordance with customs unknown to us, and to which perhaps no direct analogy is afforded by those of any other people, placed upon their altars numerous ornaments and implements,—probably those most valued by their possessors,—which remain there to this day, attesting at once the religious zeal of the depositors, and their skill in

the minor arts. From these original sources the illustrations which follow were chiefly derived.

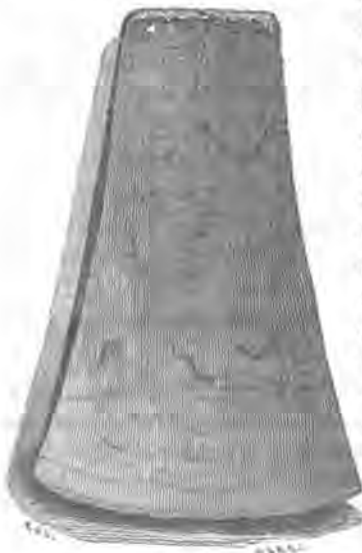
The necessity of a careful discrimination between the various remains found in the mounds, resulting from the fact that the races succeeding the builders in occupation of the country often buried their dead in them, has probably been dwelt upon with sufficient force, in another connection. Aside from the distinctive features of the relics themselves, attention to the conditions under which they are discovered, and to the simple rules which seem to have governed the mound-builders in making their deposits, can hardly fail to fix, with great certainty, their date and origin. Their true position satisfactorily determined, we proceed with confidence to comparisons and deductions, which otherwise, however accurate and ingenious they might be, would nevertheless be invested with painful uncertainty. From want of proper care in this respect, there is no doubt that articles of European origin, which, by a very natural train of events, found their way to the mounds, have been made the basis of speculations concerning the arts of the mound-builders. To this cause we may refer the existence of the popular errors, that the ancient people were acquainted with the use of iron, and understood the art of plating, gilding, &c.*

The relics found in the mounds are such only as, from the nature of the materials of which they are composed, have been able to resist the general course of decay:—articles of pottery, bone, shell, stone, and metal. We can,

* A silver cup is said to have been found, many years ago, in a mound near Marietta, Ohio, which, "though simple in its form, was smooth and regular, and had its interior *finely gilded*." (*Schoolcraft's View*, p. 276.) This statement has been gravely quoted by several writers, as illustrating the advance of the mound-builders in the arts. Assuming the fact to be as stated, there is nothing very extraordinary in the discovery. What more likely than that this cup fell, in course of barter or by accident, into the hands of some savage, with whom, in accordance with the Indian custom, it was buried at his death?

of course, expect to find but slight traces of instruments or utensils of wood, and but few, and doubtful ones at best, of the materials which went to compose articles of dress.

The first inquiry suggested by an inspection of the mounds and other earth-works of the West, relates to the means at the command of the builders in their construction. However dense we may suppose the ancient population to have been, we must regard these works as entirely beyond their capabilities, unless they possessed some artificial aids. As an agricultural people, they must have had some means of clearing the land of forests and of tilling the soil. We can hardly conceive, at this day, how these operations could be performed without the aid of iron; yet we know that the Mexicans and Peruvians, whose monuments emulate the proudest of the old world, were wholly unacquainted with the uses of that metal, and constructed their edifices and carried on their agricultural operations with implements of wood, stone, and copper. They possessed the secret of hardening the metal last named, so as to make



it subserve most of the uses to which iron is applied. Of it they made axes, chisels, and knives. The mound-builders also, worked it into similar implements, although it is not yet certain that they contrived to give it any extraordinary hardness. A number of axes have been extracted from their depositories, the general form of which is well exhibited in the accompanying engraving. This specimen was found in a mound near Chillicothe. It consists of a solid, well-

hammered piece of copper, and weighs two pounds and five ounces. It is seven inches long by four broad at the cutting edge, and has an average thickness of little less than four-tenths of an inch. Its edge is slightly curved, somewhat after the manner of the axes of the present day, and is *bevelled* from both surfaces. In size and shape it coincides very nearly with those possessed by the Mexicans and Peruvians, and was probably fastened and used in a similar way. Copper chisels, gravers, &c. have also been found in the mounds. The metal seems, however, to have been more generally applied to ornamental than useful purposes; for, while articles of ornament are common in both the sacrificial and sepulchral mounds, copper implements are comparatively rare. It is possible that ornaments were more generally placed in the mounds than articles of use; such certainly is the case in respect to the mounds of sepulture. Copper beads, bracelets, gorgets, &c. &c. are of frequent occurrence.

Silver has also been found, but in small quantities, reduced to great thinness, and closely wrapped around copper ornaments. This is done so skillfully as scarcely to be detected, and is the nearest approach to *plating* yet discovered. The ore of lead, *galena*, has been found in considerable abundance, and some of the metal itself under circumstances implying a knowledge of its use on the part of the ancient people. The discovery of gold has been vaguely announced, but is not well attested. It is not impossible that articles of that metal have been found, with other vestiges of European art, accompanying secondary and recent deposites; and it is far from impossible or even improbable, judging from the extensive intercourse which they seem to have maintained, that the metal may yet be disclosed under such circumstances as to justify the conclusion that it was not entirely unknown to the mound-builders. No iron or traces of iron have been discovered, except in connection with recent deposites; and there is no reason

to believe that the race of the mounds had the slightest acquaintance with its uses.*

It is hardly to be supposed that the silver and copper found in the mounds, were reduced from the ores of these metals. On the contrary, it is nearly certain that they were obtained native from primitive deposits. Indeed, fragments of unwrought native copper have occasionally been discovered, of considerable size; one of these, from which portions had evidently been cut, weighing twenty-three pounds, was found, a few years since, near Chillicothe. Both metals appear to have been worked in a cold state, and display the lamination of surface resulting from such a process. This is somewhat remarkable, as the fires upon

* It is unnecessary to remark that all accounts of the discovery of iron in the mounds, or under such circumstances as to imply a date prior to the Discovery, are sufficiently vague and unsatisfactory. The fragment of an iron wedge, found in a rock near Salem, Washington county, Ohio, and which has been alluded to by several writers upon American antiquities, does not probably possess an antiquity of more than fifty years. It is now in the possession of Dr. S. P. Hildreth, of Marietta, and its history, stripped of all that is not well-authenticated, is simply that it was found fastened in a cleft of a rock, and no one could tell how it came there! The only authority for the discovery of iron in the mounds, is the author of the paper on American antiquities, in the first volume of the *Archæologia Americana*, who states that, in a mound at Circleville, Ohio, was found amongst other articles "a plate of iron which had become an oxyde, but before it was distributed by the spade resembled a plate of cast iron." (*Archæol. Am.* Vol. i., p. 178.) It is obviously no easy matter to detect iron when fully oxydized in the earth; and when we are obliged to base our conclusions respecting the use of that metal, by an evidently rude people, upon such remains, if any there be, the strictest examination should be given them; appearances alone should be disregarded, and conclusions, after all, drawn with extreme caution. Whether it is likely the requisite discrimination and judgment were exercised in this case, it is not undertaken to say. But few masses of native iron, and these of small size and meteoric origin, have been found in this country; consequently the presence of iron to any extent amongst the mound-builders, can be accounted for only on the assumption that they understood the difficult art of reducing it from the ores, which involves a degree of knowledge and an advance in the arts of civilization, not attained by the Mexicans nor by the Peruvians, and not sustained by the authenticated remains of the mounds.

the altars were sufficiently strong, in some instances, to melt down the copper ornaments and implements deposited upon them, and the fact that the metal was fusible could hardly have escaped notice. The locality, from which a portion at least of the supply of these metals was obtained, is pretty clearly indicated, by the peculiar mechanico-chemical combination existing in some specimens between the silver and copper, which combination characterizes the native masses of Lake Superior. The evident scarcity of silver may also be regarded as supporting this conclusion.

Galena, as already observed, is found in considerable quantities. One of the altars uncovered was entirely occupied by a deposit of this mineral, which had been slightly subjected to the action of fire. No native deposits of galena are known to exist in Ohio, and the supply of the mounds was probably obtained from the well known localities on the Upper Mississippi.

The comparative scarcity of copper implements seems to imply that they were not in general use. At any rate, they never entirely superseded the ruder articles of bone and stone, so generally diffused among rude nations all over the globe. In Mexico and Peru those characteristic implements of a ruder state were still adhered to at the period of the discovery. The early explorers found all the American nations, from the squalid Esquimaux, who struck the morse with a lance pointed with its own tusks, to the haughty Aztec, rivalling in his barbaric splendor the magnificence of the East, including the fearless hunter tribes situated between these extremes, in possession of them. We are not, therefore, surprised at their occurrence in the mounds. We find them with the original and with the recent deposits, and the plough turns them up to light on every hand. And so striking is the resemblance between them all, that we are almost ready to conclude they were the productions of the same people. The conclusion would be irresistible, did we not know that the wants of

man have ever been the same, and have always suggested like forms to his implements, and similar modes of using them. The polished instrument with which the pioneer of civilization prostrates the forest, has its type in the stone axe of the Indian which his plough the next day exposes to his curious gaze. In the barrows of Denmark and Siberia, in the tumuli on the plains of Marathon, and even under the shadow of the pyramids themselves, the explorer finds relics, almost identical with those disclosed from the mounds, and closely resembling each other in material, form, and workmanship. We have consequently little whereby to distinguish the remains of the mound-builders, so far as their mere implements of stone are concerned, except the position in which they are found, and the not entirely imaginary superiority of their workmanship, from those of the succeeding races. We have, however, in the different varieties of stone of which they are composed, the evidences of a communication more extended than we are justified in ascribing to the more recent tribes. For instance, we find knives and lance-heads of *obsidian* (the *itzli* of the Mexicans and the *gallinazo stone* of the Peruvians), a volcanic product, the nearest native locality of which, so far as we know, is Central Mexico, the ancient inhabitants of which country applied it to the very purposes for which it was used by the race of the mounds.

Arrow and lance heads and cutting instruments of the numerous varieties of quartz, embracing every shade of color and degree of transparency, from the dull blue of the ordinary hornstone to the brilliant opalescence of the chalcidonic varieties, are frequent in the mounds. Some are worked with exquisite skill from pure, limpid crystals of quartz, others from crystals of magnesian garnet, and others still, as before observed, from obsidian. It is a singular fact, however, that none of these, nor indeed any traces of weapons, have been discovered in the "sepulchral mounds:" most of the remains found with the skeletons

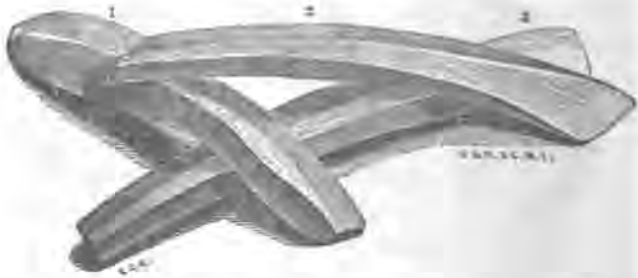
being evidently such as were deemed ornamental, or recognised as badges of distinction. Some of the altar or sacrificial mounds, on the other hand, have the deposits within them almost entirely made up of finished arrow and spear points, intermixed with masses of the unmanufactured material. From one altar were taken several bushels of finely worked lance heads of milky quartz, nearly all of which had been broken up by the action of fire. In another mound, an excavation six feet long and four broad disclosed upwards of six hundred spear heads or discs of hornstone, rudely blocked out, and the deposit extended indefinitely on every side. Some of these are represented in the accompanying engraving. They are necessarily



greatly reduced. The originals are about six inches long and four broad, and weigh not far from two pounds each. Some specimens from this deposit are nearly round, but most are of the shape of those here figured. We are wholly at a loss respecting their purposes, unless they were designed to be worked into the more elaborate instruments to which allusion has been made, and were thus roughly *blocked out* for greater ease of transportation from the quarries. Several localities are known from which the material may have been obtained. One of these, distinguished as "Flint Ridge," extends through the counties of Muskingum and Licking, in Ohio. It is many miles in extent, and countless pits are to be observed throughout its entire length, from which the stone

was taken. These excavations are often ten or fourteen feet deep, and occupy acres in extent. It is possible the late, as well as the more remote, races worked these quarries. Like the red pipe-stone quarry of the *Coteau des Prairies*, this locality may have been the resort of numerous tribes,—a neutral ground where the war hatchet for the time was buried, and all rivalries and animosities forgotten.

One description of knives, found in the mounds, is illustrated in the following engraving, which also exhibits the absolute identity that sometimes exists between the remains of widely separated people, and how, almost as it were by instinct, men hit upon common methods of meeting their wants:



No. 1 is of flint, from a Scandinavian barrow; No. 2 is of hornstone, from a mound in Ohio; and No. 3 is of obsidian, from the pyramids of Teotihuacan, in Mexico. They are all made in a like manner, by dexterously chipping off thin, narrow pieces from blocks of the various minerals mentioned, all of which break with a clear, conchoidal fracture and sharp cutting edges. Clavigero states that, so skillful were the Mexicans in this manufacture, that their workmen produced a hundred per hour. It was with knives of this kind that the bloody sacrifices of the Aztecs were performed.

In the manufacture of pottery, as has already been intimated, the mound-builders attained a considerable

proficiency. Many of the vases recovered from the mounds display, in respect to material, finish, and model, a marked superiority to anything of which the existing Indian tribes are known to have been capable, and compare favorably with the best Peruvian specimens. Though of great symmetry of proportions, there is no good reason to believe that they were turned on a lathe. Their fine finish seems to have been the result of the same process with that adopted by the Peruvians in their manufactures. Some of them are tastefully ornamented with scrolls, figures of birds, and other devices, which are engraved in the surface, instead of being embossed upon it. The lines appear to have been cut with some sharp, gouge-shaped instrument, which entirely removed the detached material, leaving no ragged or raised edges. Nothing can exceed the regularity and precision with which the ornaments are executed. The material of which the vases are composed is a fine clay, which, in the more delicate specimens, was worked nearly pure, or possessing a very slight silicious intermixture. Some of the coarser specimens have pulverized quartz mingled with the clay, while others are tempered with salmon-colored mica, in small flakes, which gives them a ruddy and rather brilliant appearance, and was perhaps introduced with some view to ornament as well as utility. None appear to have been glazed; though one or two, either from baking or the subsequent great heat to which they were subjected, exhibit a slightly vitrified surface.

The site of every Indian town throughout the West is marked by the fragments of pottery scattered around it; and the cemeteries of the various tribes abound with rude vessels of clay, piously deposited with the dead. Previous to the Discovery, the art of the potter was much more important and its practice more general than it afterwards became, upon the introduction of metallic vessels. The mode of preparing and moulding the material is minutely described by the early observers, and seems to have been common to

all the tribes, and not to have varied materially from that day to this. The work devolved almost exclusively upon the women, who kneaded the clay and formed the vessels. Experience seems to have suggested the means of so tempering the material as to resist the action of fire; accordingly we find pounded shells, quartz, and sometimes simple coarse sand from the streams, mixed with the clay. None of the pottery of the present races, found in the Ohio valley, is destitute of this feature; and it is not uncommon, in certain localities, where from the abundance of fragments, and from other circumstances, it is supposed the manufacture was specially carried on, to find quantities of the decayed shells of the fresh water molluscs intermixed with the earth, probably brought to the spot to be used in the process. Amongst the Indians along the Gulf, a greater degree of skill was displayed than with those on the upper waters of the Mississippi and on the lakes. Their vessels were generally larger and more symmetrical, and of a superior finish. They moulded them over gourds and models, and baked them in ovens. In the construction of those of large size, it was customary to model them in baskets of willow or splints, which, at the proper period, were burned off, leaving the vessel perfect in form, and retaining the somewhat ornamental markings of their moulds. Some of those found on the Ohio, seem to have been modelled in bags or nettings of coarse thread or twisted bark. These practices are still retained by some of the remote western tribes.

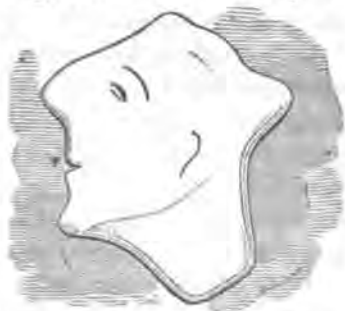
Of this description of pottery many specimens are found, with the recent deposits, in the mounds. They are identical in every respect with those taken from the known burial-grounds of the Indians.

Various *terra-cottas* are extracted from the mounds, though they are far from numerous. They generally represent the heads or figures of animals.

This was taken from a mound in Butler County, Ohio, and is now in the possession of James McBride, Esq., a zealous antiquarian of Hamilton, in that state. It represents the head of a bird, somewhat resembling a toucan, and is executed with much spirit. It was probably originally attached to some vessel, from which it was broken before being deposited where it was afterwards found. It is engraved half size of original.



This is an outline representation of a rattle of baked clay, found in a mound near Nashville, Tennessee. It has the form of a human head, with a portentous nose and unprecedented phrenological developments. It is smooth and well polished, and contains six small balls of clay,



which were discovered by perforating the neck. They must necessarily have been introduced before the burning of the toy. Similar conceits were common in Mexico and Peru, and were observed by Kotzebue upon the Northwest Coast.

Among the minerals found in the mounds, mica is most abundant. It occurs both in the sacrificial and sepulchral mounds, and seems to have been invested with a superstitious regard, and associated with certain burial and religious rites. Some idea can be formed of its abundance from the fact that bushels are sometimes taken from a

single mound. It is found of every variety—the common or transparent, silvery or opaque, and graphic or hieroglyphical varieties. Some specimens have a fine golden tinge, resembling Dutch leaf. It is sometimes neatly cut into ornamental figures, discs, scrolls, and oval plates, which seem to have constituted ornaments for dresses. A quantity, cut into the form of discs each a foot in diameter, was found in a mound near Chillicothe; the plates, which overlapped each other like the tiles of a roof, being so arranged as to form a crescent, five feet in diameter at the widest part, and upwards of twenty feet long. Some fine specimens of the graphic variety, in thin oval plates, were recently discovered in a mound near Lower Sandusky, Ohio, which were supposed, by those who first examined them, to bear indubitable hieroglyphics. A native deposit of this variety occurs on the Susquehanna river, a few miles above the city of Philadelphia. The mineral must be referred to some primitive locality or localities, which it would be interesting to identify; for, by the identification, accurate or approximate, of the original sources of the various foreign articles found in the mounds, we are enabled to fix, with greater or less certainty, the extent of the intercourse, if not in some degree the direction of the migrations, of the ancient people.

It is in this view that the discovery of pearls and marine shells in the mounds, is specially interesting. Of the latter not less than five kinds have been recognised; viz., the *cassis* (several varieties), the *pyrula perversa*, *oliva*, *marginella*, and *natica*. These shells are all found on our Southern shores.* They seem to have been chiefly

* Several of these shells, including the *pyrula perversa* and the *cassis cornutus*, were discovered several years ago in a mound near Cincinnati, and others near Lexington, Ky., which have since figured largely in most speculations on American antiquities and the origin of the American race. They were assumed to be peculiar to Asia; and, as similar shells were sacred to certain religious rites, or consecrated to certain gods of the Hindoos, have been cited in support of the hypothesis that the builders of the mounds had their origin in India. [See *Delafield's Inquiry*, *Bradford's Researches*, *Living's*

used for ornamental purposes, and hundreds of the margined, pierced longitudinally so as to be strung, are sometimes found accompanying a single skeleton. Great numbers of beads, worked from the compact portions of some of the larger shells, are also found. These, generally much altered by long exposure, were originally supposed to be ivory, and their frequent discovery probably gave rise to the notion that ivory is common in the mounds. It has been suggested that many of them were worked from the columella of the *strombus gigas*, which has been discovered in some of the ancient graves of Tennessee.* Quantities of pearls, more or less burned, have been found, but only upon the altars. They are clearly not from the fresh water molluscas; their numbers and great size forbid the supposition. They are easily identified by their concentric lamination. They are generally pierced for beads, but some of the smaller ones, as will shortly appear, constituted the eyes of the ancient sculptures of animals and birds. We must refer these to the same locality from whence the shells above named were procured; where, as we are informed by the early writers, the Southern Indians carried on the pearl fishery. It may be mentioned, in this connection, that the teeth of the shark and alligator, bear, panther and wolf, and the talons of rapacious birds, as also the fossil teeth of the shark,—the latter most likely from the tertiary of the lower Mississippi,—have all been found in the mounds. Most of them are perforated, and were probably used as ornaments or amulets, but some seem designed as implements. Many large teeth, probably cetacean, have been

Polynesian Researches, &c. &c. This is but one of many instances in which an erroneous assumption has been perpetuated by succeeding writers, each quoting from his predecessor without submitting his statements to a critical analysis. The well-known fact that these shells occur in abundance on our Southern shores, relieves them from the necessity to which they have heretofore been subjected, of a transportation of twelve thousand miles,—ten thousand by sea, and two thousand by land!

* Trans. Am. Ethnog. Soc. Vol. i., p. 360.

discovered ; not far from one hundred occurred in a single mound. They were all too much burned to be recovered entire. One of the largest measured six inches in length, and upwards of four inches in circumference at the largest part. They are destitute of enamel, and have a pulp cavity, in this respect resembling those of the whale, from which, however, they differ widely in shape. They have not yet been identified. The mound-builders evidently used them for various purposes, and some of the articles taken for ivory may have been made from them. A specimen was found which exhibited marks of having been sawn, drilled, and polished. Accompanying them were several beautifully carved cylinders of a compact substance resembling ivory ; one of these was originally fourteen inches in length, and when found was closely wrapped in sheet copper. Bones of the elk, deer, &c., worked into the form of daggers, awls, &c., are of frequent occurrence.

It is impossible here to indicate the great variety of the implements and ornaments of silver, copper, stone, &c. &c., found in the mounds. Many of these are of a very interesting character, as illustrating the state of ancient art, and as enabling us, from the material of which they are composed, their peculiarities of form, and correspondences of use, to define the intercourse, and in some degree the connections, of the ancient races. From what has already been presented, it will be seen that there are gathered in the mounds, or the alluvions of the Ohio, copper and silver from the Great Lakes ; pearls and shells from the Southern Gulf ; mica from the primitive ranges of the Alleghanies, and obsidian from the volcanic ridges of Mexico,—an extended range, the extremes of which define, with great precision, the field in which the mounds occur. It would almost seem that the ancient race existed contemporaneously over this great area, maintaining throughout a constant intercourse.

There is one class of ancient remains which probably

possesses a greater popular interest than any other. These are the sculptures or carvings in stone, of which a great variety occur in the mounds. These display no inconsiderable degree of taste and skill. They exhibit a close observance of nature, and an attention to details, which we are unprepared to look for among a people not considerably advanced in the arts, and to which the elaborate and laborious, but usually clumsy and ungraceful productions of the savage, can claim but slight approach. Savage taste in sculpture is oftenest exhibited in monstrosities, caricatures of things rather than faithful copies. The carvings from the mounds, on the contrary, are remarkable for their truthfulness; they display not only the general form and features of the objects sought to be represented, but to a surprising degree their characteristic expression and attitude. In some instances their very habits are indicated; the otter is represented securing a fish, so also is that inveterate fisher, the heron, and the hawk holds a small bird in his talons and tears it with his beak. These representations are so exact as to leave no doubt as to the animals designed to be exhibited. Hardly a beast, bird, or reptile, indigenous to the country, is omitted from the list. We identify the beaver, the otter, elk, bear, wolf, panther, racoon, opossum, and squirrel; the hawk, heron, owl, vulture, raven, swallow, paroquet, duck, goose, and numerous other varieties of land and water birds; the alligator, turtle, toad, frog, rattlesnake, &c. &c. Besides these there are carvings of various animals and birds not indigenous to this latitude; for instance, the lamantin or manitus, and the tocan. Several carvings, supposed to represent the manitus, have been discovered, one of which is shown, of full size, in the following engraving:



The engraving does not do full justice to the original, which is exquisitely carved and polished, every feature being clearly made out. The sculpture answers very well to the descriptions of the manitus given by naturalists. It has the obtuse head (not well shown in the engraving); thick, fleshy snout; semi-lunar nostrils; tumid upper lip, furrowed in the middle; scarcely distinguishable ears; the singular moustaches mentioned by Desmoulin; short, thick neck, and rudimental paws, or, as they were called by the Spaniards, hands. The general form also corresponds with the descriptions given. But one of the sculptures exhibits a flat, truncated tail, the rest are round, and rather long. There is a variety of the lamantin, however, known as the round-tailed manitus, to which they may bear a closer resemblance. This animal is only found in tropical regions; it occurs, though rarely, on the Peninsula of Florida, and, it is believed, nowhere else within the limits of the United States. The inhabitants of San Christophers, Guadaloupe, and other of the Barbadoes, formerly used it for food, and the Southern Indians made use of its hide for thongs, and its bones for implements. The sculptures of this last of animals or first of fishes are all of the same style of workmanship, and of like materials, with an entire class of sculptures found in the mounds. Consequently, either the same race of men, possessing throughout a like mode

of workmanship and deriving their materials from the same sources, existed at the same period over the intervening country, from the Ohio to the haunts of the manitus on the Southern coast, and maintained a constant intercourse; or else there was, at some time, a migration from the South, bringing with it these characteristic remains of another region. We cannot conceive that these sculptures alone are fanciful creations, bearing only an accidental resemblance to the manitus, while the others accompanying them are faithful representations of objects generally easily recognizable.

It should be remarked, that the mound-builders seem to have been inveterate smokers, and that in the construction and ornament of their pipes they displayed their utmost skill. The general form of the mound pipe, which may be regarded as the primitive form of the implement, is well exhibited in the accompanying sketch.



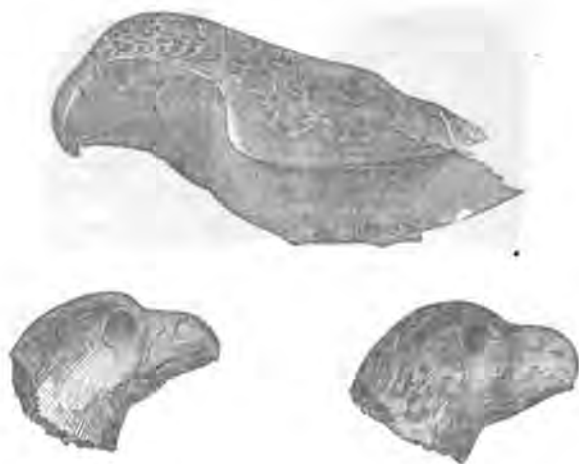
It will be observed that this form differs widely from that adopted by the existing tribes of Indians. The pipes of the mounds are always carved from a single piece, and consist of a flat, curved base of variable length and width, the bowl rising from the convex side. From one of the ends, communicating with the bowl, is drilled a small hole answering the purposes of a tube; the corresponding opposite division being left for the manifest purpose of holding the implement to the mouth. The specimen above represented is exquisitely carved from a beautiful variety of

brown porphyry, granulated with variously colored materials; the whole much changed by the action of fire, and somewhat resembling porcelain. It is intensely hard, and successfully resists the edge of the finest tempered knife. The length of the base is five inches, width of the same one and a fourth. The bowl is one and a fourth inches high, slightly tapering upwards, but flaring near the top. The perforation answering to a tube is about one-sixth of an inch in diameter, which is about the usual size. This circumstance places it beyond doubt that the mouth was applied directly to the implement, without the ordinary intervention of a tube of wood or metal.

The bowls of these pipes are often sculptured into singular devices, figures of the human head, of animals, birds, &c. The sculpture of the manitus above described, constituted an elaborate pipe. So, also, does the following carving of the toad, which, in lugubriousness of expression scarcely less than by his gnarled coat, proclaims the nice observation possessed by the ancient artist, and his keen appreciation of the ludicrous.



It is carved in porphyry, as is also the following fragment of a sculptured hawk, and the accompanying heads of rapacious birds:



The eyes of most of these figures were originally filled with small pearls, some of which, though completely calcined by the fire, still retain their places. Among the numerous sculptures are several of the human head, which, it may safely be concluded, from the fidelity to nature observed in the others, display not only the characteristic features of the ancient people, but also their modes of adjusting the hair, their style of ornament, &c. One of these, boldly carved from a dark-colored stone, is here presented.

This specimen is distinguished from the others by its hardness and severity of outline. It has a singular head-dress falling in a broad fold over the back of the head, as far down as the middle of the neck. Upon either side of the head, this head-dress, which may represent some peculiar style of plaiting the hair, rises into protuberances or knots, corresponding to the style of wearing the hair adopted by the ancient Aztec women. Encircling the forehead, is a row of small, round holes, fifteen in number, placed as closely as possible together; which, when the head was



found, were filled with small calcined pearls,—originally constituting a brilliant circlet, contrasting, in a striking manner, with the dark stone in which they were inserted.* The ornamental lines upon the face are deeply cut, and probably represent tattooing. Those radiating from the mouth might readily be supposed to represent a curling moustache and beard. The mouth of this miniature head is somewhat compressed and the brow seems contracted, giving it an aspect of severity which is not fully conveyed by the engraving. The eyes are prominent and open.

In the same mound with the above was found another head, of entirely different outline, of which a profile is here presented.



The eyes seem closed, and the whole expression of the face is that of a repose like death. It was probably designed to represent a female face.

* It is impossible to overlook the coincidence between the fillet of *real* pearls displayed upon the forehead of this figure, and the similar range of

Of a very different character, and doubtless of a very different origin, is a class of sculptures of which the following cut presents an example. It is carved from a dark-



colored sandstone, and represents a human figure resting upon its knees and elbows. The limbs, however, are barely indicated. The figure is boldly though roughly carved, with the exception of the face, which is better finished and quite characteristic. It has peculiar markings, extending from the eyes diagonally across the cheeks. A large serpent is folded around the neck; the head and tail of the reptile resting together upon the breast of the figure. The head is surmounted by a knot, resembling the "scalplock" of the Indians. It is six inches in greatest length, five inches high, and has a broad, flat base. It was ploughed up, some years since, near Chillicothe, Ohio. Like

sculptured pearls upon the brow of the small statue described by Humboldt (*Recherches*, vol. i. p. 43), and denominated by him the "Statue of an Aztec Priestess."

the more delicate sculptures above referred to, it was adapted for a pipe.

Several other specimens, closely resembling the one last described, have been found at various points upon the surface, but none have been developed from the mounds. Both in material and workmanship they sustain a close relationship to certain "stone idols," as they have been termed, discovered in Virginia, Tennessee, and elsewhere. One of these, found in the vicinity of Grave Creek, Virginia, and described by Mr. Schoolcraft in the first volume of the Society's Transactions (page 408), is distinguished by a similar "scalp-lock. The orifices communicating with each other, in the back of that figure, would seem to indicate that it also was designed for a pipe. The fact that no sculptures of this description have been found in the mounds, and the comparative rudeness which they exhibit, induce the belief that they belong to a different era, and are the work of another and a ruder people.

A large proportion of the mound sculptures are executed in a fine porphyry. It occurs of many shades of color; some varieties have a greenish brown base, with fine white or black grains; others a light brown base, with white, purple, and violet-tinged specks; but most are red, with white and purplish grounds. In some specimens the base exhibits scarcely any admixture, and strongly resembles the *Catlinite*, or red pipestone of the *Coteau des Prairies*. All the examples are of great hardness; a natural characteristic, or measurably the result of the great heat to which they have been subjected. Under heat this porphyry splinters, often in a nearly uniform plane; and examples have been remarked, partly fused into a porous, dark brown mass. Heat has the effect of rendering the specimens with a red base of a bright black; and some of the restored sculptures exhibit a striking contrast in the color of their different parts. The primitive locality of this mineral is unknown.

All carvings from the mounds are exquisitely wrought ; and in all cases where the material will admit of it, beautifully polished. We can scarcely understand how, in the absence of instruments of iron, the carvings were executed. It may be suggested that they were rubbed into shape upon hard rocks ; but, apart from the incredible labor of such a process, and the palpable impossibility of securing the delicate features which some possess, by such means, we find some of the unfinished specimens which show that, however the general outline was secured, all the lines and more delicate features were *cut* or *graved* in the stone. The copper tools, resembling graters, seem hardly adequate to this work, but they are the only instruments discovered which appear at all adapted to the purpose.*

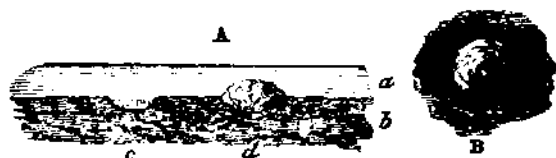
* It is probably unnecessary to say, that the mound-builders did not attempt the working of large stones, for building or other purposes. They occasionally broke up or quarried through the sand strata, in defending their military positions, but none of the disrupted stones bear the marks of edge tools. Mr. Atwater (*Archæologia Americana*, vol. i. p. 150) is the only authority for any thing of the kind. He describes certain "wells," in the bed of Paint Creek, twelve miles distant from Chillicothe, which "were dug through the solid alate rock, and each covered over by a stone about the size and shape of a common millstone. These covers," continues the account, "had each a hole through the centre, about four inches in diameter, through which a large handspike or pry might be put for the purpose of removing them off and on the wells. The wells, at the top, were more than three feet in diameter; and stones, well wrought with tools, so as to make good joints, were laid around the hole. I had a good opportunity to examine these wells; the stream in which they were sunk being very low. The covers are now broken in pieces, and the wells filled with pebbles, &c."

These astonishing wells, sunk through the solid rock, with stones, "well wrought with tools," around them, and possessing cyclopean covers, have filled no small space, at home and abroad, in every chapter of speculations upon American antiquities. Indeed, they have been regarded, in many respects, as the most remarkable remains of antiquity within the limits of the United States,—although the reason for sinking wells in the bed of a creek was probably never very obvious to any mind. The reader will hardly be prepared, after these details, presented upon the personal responsibility of the author in question, to learn that the "wells" are simple casts of huge *septaria*, parallel ranges of which ran through the slate strata of this region. The cyclopean "covers" are sep-

The limit assigned to this paper prohibits any further account of the remains found in the mounds. What has already been presented may serve to give some slight conception of their general character, if not of their number. The relationship which they exhibit, in many respects, to remains found elsewhere on the continent, will probably be forcibly suggested to most minds, and may serve in a degree to indicate, as has already been remarked, the dependencies and intercourse, as well as illustrate the minor arts of the ancient people. They should, however, be considered only in connection with the other more imposing remains with which they are associated, as collateral aids in the solution of the grand questions involved in the ancient history of man in America.

SCULPTURED TABLETS.—There is a single point more, which, from a variety of causes, has been invested with special interest, and which it will not be out of place to notice in this connection, viz. ; the alleged discovery, in

teria which yet resist the disintegrating action of the water, and retain their original beds. These septaria are of an oblate-spheroidal figure, some of them measuring from nine to twelve feet in circumference. They frequently have apertures or hollows in their middle, with radiating fissures, filled with crystalline spar or sulphate of baryta. These fissures sometimes extend beyond them, in the slate rock, constituting the "good joints" above mentioned. The slate layers are not interrupted by these singular productions, but are bent or wrapped around them. The following cut illustrates their character :



A is a vertical section: *a* exhibiting the water, *b* the rock. At *c* the septarium has disintegrated, or has been removed, and its cavity or bed is filled with pebbles. At *d* the nodule still remains. B exhibits the appearance presented by *d* from above.

the mounds, of sculptured tablets, bearing hieroglyphical or alphabetical inscriptions. Nothing, to which it would be possible to assign any such extraordinary character, has been discovered by the writer and his associate, in the course of their investigations; nor does it seem likely that any thing like an alphabetical or hieroglyphical system existed among the mound-builders. The earth-works and their contents certainly establish that, prior to the occupation of the Mississippi valley by the tribes found in possession by the Europeans, there existed here a numerous people, possessing a different social, and probably a different civil organization,—an agricultural people, considerably advanced in the arts, and undoubtedly, in most respects, superior to the hunter tribes with which we are acquainted. There is no evidence, however, that their condition was any thing more than a limited approximation to that attained by the ancient Mexicans, Central Americans, and Peruvians, which nations had made but the first advance towards an alphabet. Whether they had progressed further than to a refinement on the picture-writing of the savage tribes, is not yet considered established. It would be unwarrantable, therefore, to assign to the race of the mounds a superiority in this respect over these nations, which were so much in advance of them in all others. It would be a practical reversal of the philosophic teachings of History, an exception to the laws of progress, which it would require a large array of well attested facts to sustain. Such an array of facts we do not yet possess.

Although numerous announcements of the discovery of plates of stone or metal, bearing inscriptions, have been made, there are but two tablets to which a hieroglyphical or alphabetical character has been assigned, which are sufficiently well authenticated to deserve notice, viz., one said to have been found in the celebrated Grave Creek mound, the other in a mound near Cincinnati.

The following engraving is a reduced copy of the relic

last named, which is now in the possession of Erasmus Gest, Esq. of Cincinnati. The original is five inches long by three broad at the ends, and about half an inch in thickness.



The circumstances under which this relic was discovered are such as to leave little doubt of its authenticity, or that it pertained to the race of the mounds. It was discovered in December, 1841. The material is a fine grained compact sandstone, of a brown color. The sculptured face varies very slightly from a perfect plane. The figures are in low relief (the lines being not more than one-twentieth of an inch in depth), and are embraced in a rectangular space, four and two-tenth inches long by two and two-tenth inches broad. A right line is drawn across the face, near each end, exterior to which are notches, twenty-four at one end, twenty-five at the other. Extending diagonally inward from these lines are fifteen short ones, seven at one end, eight at the other. The back of the stone has three deep longitudinal grooves, and several depressions, evidently caused by rubbing,—probably produced in sharpening the instrument used in carving.

Without alluding to the "singular resemblance which

the relic bears to the Egyptian *cartouche*," it will be sufficient to direct attention to the reduplication of the figures, —those upon one side corresponding with those upon the other, the two central ones being also alike. It will be observed that there are but three distinct scrolls or figures, —four of one kind and two of each of the others. Probably no serious discussion of the question, whether or not these figures are hieroglyphical, is needed. They more resemble the stalk and flowers of a plant than any thing else in nature. What significance, if any, may attach to the peculiar markings or graduations at the ends, it is not undertaken to say; the sum of the products of the larger and shorter lines exhibits this result: $(24 \times 7 = 168) + (25 \times 8 = 200) = 368$, three more than the number of the days of the year; upon which the suggestion has been advanced that the tablet had an astronomical origin, and constituted some sort of a calendar! We may perhaps find the key to its purposes in a very humble, but not therefore less interesting class of Southern remains. Both in Mexico and in the mounds along the Gulf, have been found *stamps* of burned clay, the faces of which are covered with figures, fanciful or imitative, all in low relief, like the face of a stereotype plate. These were used in impressing ornaments upon the cloths or prepared skins of the people possessing them. They exhibit the concavity of the sides to be observed in the relic in question, and also a similar reduplication of the ornamental figures,—all betraying a common purpose. This explanation is offered hypothetically, as being entirely consistent with the general character of the mound remains.

The accompanying relic, from the frequency with which it has been presented, is doubtless familiar to most persons who have paid attention to American antiquities. It purports to have been found in the upper vault of the great mound at Grave Creek, by the side of the skeleton therein contained. With this skeleton, according to the published ac-



count of the proprietor of the mound, who opened it, were discovered "one thousand seven hundred ivory [shell] beads, five hundred shells of the involute species [*marginitella*], five copper bracelets, fifty slips of mica, and the relic in question. It is of the size and shape indicated in the engraving, and is described as composed of a compact sandstone of a light color.* The so-called inscription is arranged in three parallel lines, and comprises twenty-four distinct characters, accompanied by a supposed hieroglyphic or ideographic sign. An analysis of this inscription has been undertaken by a number of learned individuals, with various results. Mr. Schoolcraft regards twenty-two of the characters as unquestionably alphabetic, four of which he identifies as corresponding with the ancient Greek, the same number with the Etruscan, five with the Runic, six with the ancient Gallic, seven with the old Erse, ten with the Phœnician, fourteen with the old British, and sixteen with the Celtic. These results are substantially the same with those arrived at by Mr. Rafn, of the Danish Antiquarian Society. A coincidence between some of the characters and certain ancient alphabets of Africa, has been remarked by M. Jomard, the eminent President of the Geographical Society of Paris, and by our distinguished countryman, W. B. Hodgson, Esq., late U. S. Consul at Tunis.†

* The engraving is from a drawing made from the original by Mr. Schoolcraft, and published in the first volume of these Transactions. It is probably the only correct copy ever published.

† *Pol.* By the mass! and 't is like a camel, indeed!

Ham. Methinks it is like a weasel.

Pol. It is backed like a weasel.

Ham. Or like a whale?

Pol. Very like a whale!—*Shaks.*

Upon a subject which has received the attention and elicited the observations of so many learned gentlemen, in our own country and in Europe, it may perhaps be deemed presumptuous to venture a remark or submit an opinion. The relic is, however, of so remarkable a character, and must, if proved to be a genuine antique of the mound era, lead to such extraordinary results, that we are justified in submitting the question of its authenticity to the most rigid scrutiny. Whoever announces a discovery to the world, in any branch of research, must expect to have it subjected to every test sanctioned by the rules of evidence. Nor should it be a matter of complaint, on the part of those interested, if this scrutiny should be conducted with apparent severity towards themselves, particularly when, as in this instance, we have no collateral evidence to which appeal may be made in support of the presumed discovery.

The inquirer cannot fail to be struck with the circumstance, that, contrary to the rules which regulate philosophic research, in all the speculations to which this relic has given rise, its authenticity has been assumed, apparently without an effort towards its confirmation. This is the more singular when we consider the conclusions which must follow the assumption. The inscription, it is conceded on all hands, is not hieroglyphical; the characters can be regarded only as the letters of an unknown alphabet, bearing a close likeness to those embraced in that large class of alphabets, of which the ancient Phœnician may be advanced as the type, and which were, at one period, extensively disseminated over the South of Europe. Regarding it as alphabetical, we are forced to one of two conclusions, equally extraordinary: either the race of the mounds possessed an alphabetical system; or the inscription is of European origin, and was transported to the Ohio valley by individuals of European stock, or by a course of exchange with nations or tribes bordering the sea-coast,

who themselves possessed an accidental or regular intercourse with the people of the other continent. The first hypothesis has not, it is believed, been seriously advanced. It cannot be supposed that a people so extensively disseminated as the mound-builders would have left so slight and doubtful an evidence of their alphabetic system, had they possessed one. The other hypothesis falls more nearly within the scope of possibility, not to say probability, and has ingenious, and no doubt earnest, supporters among those who claim a European intercourse with America, long anterior to the discovery in the fifteenth century. The difficulties in the way of this hypothesis will probably appear light to those who can readily find, in the rude rock-tracery of the Indians, the indubitable record of a European visit to the shores of New England! The objection that the race of the mounds have left no evidence of their occupation of the country bordering the Atlantic, and would consequently be unable to avail themselves of an opportunity of communication with Europeans, driven by stress of weather, or arriving in quest of adventures, upon the American shores, is also easily surmounted by the supposition, that the intervening country was possessed by tribes through the agency of which the inscription found its way beyond the mountains. Or if it is preferred, it is quite feasible, by a single effort of the imagination, to transport a sturdy Celt across a trackless ocean, through a wilderness infested by savages and wild beasts, and upon the banks of the Ohio invest him with a chieftaincy among the mound-builders; who, it is also easy to suppose, in memory of so renowned an adventurer, reared over his remains a huge earth structure,—a mode of sepulture eminently congenial to an individual accustomed to similar practices in his native land! It is indispensable that this diversified journey should be performed, if, as it is stated by some who have seen the relic, it is composed of the prevailing sandstone of the region in which it was found.

It is quite immaterial, in the inquiry here proposed, by what chain of supposed circumstances the presence of the stone in the mound is accounted for. The only question to be settled is that of authenticity. Primarily, the relic is entirely unique and sustains no analogy whatever to any of the authentic remains of the mounds; the presumptions are all against it. It should not be recognised, therefore, except upon ample testimony, which should be so explicit as to leave no doubt concerning it. Have we any testimony of this kind? What evidence have we that it is genuine and no imposition? A direct answer would doubtless involve an inquiry into the personal credibility of the discoverer,—an inquiry into which it is not proposed to enter. We are consequently reduced to a simple scrutiny of the circumstances attending the alleged discovery.

The Grave Creek mound, from its great size and prominent location on the banks of that great thoroughfare, the Ohio river, attracted a large share of attention from a very early period. It became one of the standard curiosities of the valley, and was one of the objects pointed out to travellers by the captains and crews of vessels, under the suggestive name of "*the Grave*." It was an object of frequent visit and remark. "Dates," says the proprietor, "were cut upon the trees at its top, as early as 1734." A large beech is specified which was "literally covered with names and dates to the height of ten feet." Every tourist mentioned it; and no chapter on American Antiquities was complete, in which it did not occupy a conspicuous place. Proposals were made to excavate it, but this was rigidly resisted by the proprietor. Upon his death it passed into the ownership of his descendants; and continuing to be an object of increasing interest and more frequent visit, the project of opening and fitting it up for exhibition was hit upon, as likely to afford a gratification to visitors, and, incidentally, prove a very profitable investment of the labor and money necessary to the undertaking. Accordingly, in the spring

of 1838 the work of excavation was commenced, and was completed some time during the summer of the same year. A shaft was carried horizontally to the centre of the mound, and another sunk from its top. A "rotunda" was excavated at the junction of the two shafts, and the walls rendered secure by masonry. Upon the top of the mound was erected a light three story structure, dignified with the name of an "observatory." The entrance was duly fitted with doors and locks, and the whole surrounded by a high, close fence, excluding from the precincts all who did not possess the miraculous "open sesame" of one dime, continental currency! Within the "rotunda," were placed the various relics discovered in the course of the excavations,—the skeletons in grim array, and the remaining objects so grouped as most sensibly to impress the beholder, augment the fame of the mound, and, *incidentally* again, draw other visitors to the spot. The *object* of the excavation was primarily that of gain; although there is no doubt curiosity, probably not the most enlightened, had some influence in the matter. Of course the more extraordinary the character of the relics deposited in the subterranean museum, the more likely to attract visitors, and accumulate the aforesaid "dimes." Stone axes, and shell beads, and slips of mica, all very curious and interesting to the antiquary, have, however, no very popular interest, and may be obtained in too many localities to be regarded as any thing very wonderful. An *inscription*, however, in an unknown character, is not to be found every day,—it is an "immense attraction," in the language of the play-bills, and likely to have a run!

It would be curious to know how soon after the opening of the mound, the announcement of the discovery of the stone was made. It seems that some notice of it appeared, in one of the Cincinnati papers, some time in the year 1839, but whether contained in an account of the mound itself or otherwise, is not known. At any rate,

previous to this notice, which appears to have been the earliest made, a detailed account of the opening of the mound, and of its contents, was communicated to the author of the "Crania Americana," and published in that valuable contribution to science. This account was from the hand of Dr. Clemens, of Wheeling, Va., who seems to have been well acquainted with all the circumstances attending the excavation. It contains, however, no reference to the inscribed stone; although it describes minutely the various other relics taken from the mound, and, except in this and one or two other respects, is identical with that published by the proprietor of the mound in 1843.* This singular omission of a relic infinitely the most remarkable of the whole series, is entirely unaccountable, if any thing was known concerning it at that period.

There is also a discrepancy between the accounts of Dr. Clemens and the proprietor of the mound, in respect to the number of skeletons found in the same. The former gentleman states that in enlarging the lower vault for an exhibition chamber, *ten* human skeletons were found, all in a sitting posture, but too much decayed to be removed. The proprietor of the mound, on the other hand, explicitly states that there were but *two* skeletons in the lower vault. Apart from this, there is no material conflict between the respective statements.

It appears then, *first*, that the mound was opened as a speculation, the success of which depended to an extent upon the more or less extraordinary character of the remains exhumed; *secondly*, that we have no evidence of the alleged discovery except the unsupported testimony of a single individual, a party interested; *thirdly*, that a positive discrepancy exists, in respect to the relic, between the account of a close observer writing from the spot, at the

* American Pioneer, vol. ii., p. 201.

time of the excavation, and that of the proprietor, published five years thereafter; and *fourthly*, that there is no evidence of any mention of the existence of the relic, until a year or upwards after the excavation took place. In view of these circumstances, and of the strong presumptive evidence against the occurrence of any thing of the kind, furnished by the antagonistic character of all the ancient remains of the continent, so far as they are known, it must be admitted that all speculations based upon this relic are entitled to little consideration. Until it is better authenticated, it should be entirely excluded from a place among the antiquities of our country. Archeological research, to an eminent degree, demands a close and critical attention to the facts upon which it is conducted.*

There is another alternative respecting the relic under notice which has not yet been remarked. It is possible that the excavator of the mound was himself imposed upon. That similar impositions have been practised, under no stronger inducement than the malicious gratification of hoaxing credulous mound-diggers, is well known. A notable example is furnished in the six inscribed copper plates, said to have been found in a mound near the village of Kinderhook, Pike Co., Ill. Engravings of these and a minute description were published in due time. They were extensively circulated, and there are, doubtless, many well-informed persons, who, to this day, repose a degree of confidence in the pretended discovery. The characters were supposed to bear, in the language of the printed an-

* The stone is no longer in the mound at Grave Creek, but is said to be in the possession of some person at Richmond, Va. Genuine or otherwise, it was inadequate to make the mound "pay;" the excavation proved to be, peculiarly, a "bad operation." The "rotunda" has fallen in, the bolts and bars have vanished, and the gate to the enclosure no longer requires the incantation of a *dime* to creak a rusty welcome to the curious visitor.

"*Sic transit gloria mundi!*"

nouncement, "a close resemblance to the Chinese." They proved to have been engraved by the village blacksmith, who had probably no better suggestion to his antiquarian labors than the lid of a tea-chest. Each plate, it should be remarked, had an orthodox "ideographic sign," quite after the fashion of its more famous counterpart.

ARTICLE III.

VIEW OF THE ANCIENT GEOGRAPHY

OF THE

ARCTIC REGIONS OF AMERICA,

FROM ACCOUNTS CONTAINED IN OLD NORTHERN MANUSCRIPTS.

BY CHARLES C. RAFN,

Sec. of Royal Society of Northern Antiquarians, Copenhagen.

ANCIENT GEOGRAPHY OF
THE ARCTIC REGIONS OF AMERICA.

THE east coast of Greenland was, in ancient times, uninhabited by Europeans; although, from the account of Are Frode, the earliest Icelandic historian, it would appear that on the discovery of the country and survey of its coast, there were found, both on the east coast and on the west coast, remains indicative of their having been resorted to at an earlier period by the Skrœlingar or Esquimaux of America. The *Svalbarde* of the ancient Scandinavians, discovered in 1194, appears to be the tract of coast surveyed in 1761 by Volkert Bohn, of the island of Fœhr, in Denmark, and rediscovered by Scoresby, by whom it is called Liverpool coast. The *Gunnbiarnarsker*, or Gunnbiarnareyjar, discovered in 877 by Gunnbiörn Ulfson, will be the islands seen off the coast by Capt. W. A. Graah, R. N., in latitude 65° 20' N.; *Hvitserk*, the southernmost promontory, Cape Farewell; the chief seat of the colony, *Eystribygð*, the present district of Julianœhaab. The most important of the colonized firths are named, in order, from South to North, in four original written sources; of which the latest and most circumstantial is a Chorography by Ivar Bardson, who, in 1841, was sent by Hakon, bishop of Bergen, to Greenland, and who for many years was superintendent of the episcopal see of Gardar. *Heriulfsnes* with *Heriulfsfirth*, where Heriulf Bardson settled in 986, and where his son, Biarne Heriulfson, arrived in the autumn of the same year after having seen the more southern Amer-

ican coast, is the Ikigeit of the present day. Of the church mentioned in Bishop Gudmund Arason's Saga, some of the ruins are still left, and several inscriptions have here been found. *Ketilsfirth* with its two churches is the modern Tessermiut, where Mr. J. J. A. Aroe found a quantity of ruins. *Rafnsfirth*, which, in the first year of the landnam or colonization, 986, was colonized by the landnamsmann Rafn, is now Ournartok. According to the ancient description of Ivar Bardson of the 14th century, there were in this firth islets with springs of hot water. There are in the island of Ounartok three warm springs, which have given to the island and firth their Esquimaux name, signifying in that language the boiling. Capt. Graah, who visited the place in July, 1828, found the temperature of the water in these springs ranging from 26 to 33½° R. *Siglusfirth* is now Aglutsok; here the rudera of Vogar church were discovered by the Rev. Valentine Müller, who visited this firth in the years 1832 and 1833, on behalf of the Royal Society of Northern Antiquaries. He saw, moreover, the ruins of a mansion belonging to the king, by Ivar Bardson called Foss, or waterfall, situated near a large stream, forming a waterfall of 200 feet in height. *Einarsfirth* is Igalikko; the ruins of the cathedral and episcopal see of *Gardar*, (which was founded in 1126, and stood for upwards of three centuries) were rediscovered at Kaksiarsuk on the eastern arm of this firth. *Ericsfirth*, where the chief leader of the landnamsmenn or colonists, Eric the Red, settled in 986, is now Tunnudluarbik, together with the northern arm of Igalikkofirth, at which the ruins of the principal settlement of *Brattahlid*, with Leidar kirkia (the church of the district), have been found, and especially, among the numerous buildings there, rudera of the house of Brattahlid itself, so denominated from its being built up against the side of a steep precipice (from *brattr* and *hlöð*). The Rev. Mr. George F. Joergensen, who has furnished a description and ground-plan of the whole settlement, which may be com-

pared to an entire town, observes that a steep rock forms one of the walls of this house, the building of which was accomplished with incredible labour. This house was built by Eric the Red, who in the year 986 made it his residence. It was subsequently occupied, at the commencement of the 11th century, by his celebrated son Leif the Happy, and by his grandson Thorkel Leifson ; and it continued, down to the latest times of the colony, to be the abode of the sheriffs (*logmenn*). Here, in this house, the far-famed couple, Thorfinn Karlsefne and Gudrid Thorbiornsdotter, celebrated, in 1007, their nuptials, and determined on their remarkable voyage of discovery to that more southern land which 7 years before had been discovered and visited by Leif Ericson, viz. Vinland (the present Massachusetts and Rhode Island). *Isafirth*, which was the most western firth in the *Eystribygð*, will be the great bay in which lies the island of Sennerut. One arm of this firth was called *Utblíksfirth*, a name adopted by the ancient Northmen from the Esquimaux, with whom they must consequently have held intercourse at an early period in Greenland ; for it is the Esquimaux word *Itiblik*, signifying an isthmus, and there is here a remarkable isthmus which the Esquimaux still call by that name. *Eystribygð* comprised anciently 190 settlements, with 12 churches, of most of which unquestionable ruins have been found. The site of *Vestribygð*, which included but 90 settlements and 4 churches, lay farther towards the North ; and the ancient *Steinsnes* must be placed at Aglomersæt ; *Rangefirth* at Amaraglik ; *Agnafirth*, with a church, at Hope, in Baals Revier in the present district of Godthaab, and *Lysufirth* will be Isertok in Sukkertoppen's district. Of the ancient *Norðrsetur*, or summer stations for fishing and hunting, we may mention *Biarney* (which had been already visited in 1007 by Thorfinn Karlsefne in his voyage to Vinland), now Disco, the island of Kingiktórsoak to the North of the most northern of the present Danish establishments Upernivik, where a curious

runic stone of 1135 was found in 1824, and *Kroksfirth*, through which some clergymen from the episcopal see of Gardar performed, in 1286, an exploratory voyage, and which, from the astronomical notices contained in the ancient account of this journey, are proved to be Sir James Lancaster's Sound and Barrow's Strait, together with Prince Regent's Inlet.

ARTICLE IV.

ACCOUNT OF
A CRANIOLOGICAL COLLECTION;

WITH REMARKS ON

THE CLASSIFICATION OF SOME FAMILIES OF THE HUMAN RACE.

BY SAMUEL G. MORTON, M. D.

DR. MORTON'S CRANIOLOGICAL COLLECTION.*

PHILADELPHIA, December 1, 1846.

MY DEAR SIR,—I have great pleasure in giving you the information requested in your last letter; and in so doing shall endeavour to be as brief as possible.

Having had occasion, in the summer of 1830, to deliver an Introductory Lecture to a course of Anatomy, I chose for my subject, "The different forms of the skull, as exhibited in the Five Races of Men." Strange to say, I could neither buy nor borrow a cranium of each of these races; and I finished my discourse without showing either the Mongolian or the Malay.

Forcibly impressed with this great deficiency in a most important branch of science, I at once resolved to make a collection for myself; and now, after a lapse of sixteen years, I have deposited in the Academy of Natural Sciences, a series embracing upwards of seven hundred human crania, and an equal number of the inferior animals.

The human skulls are derived from all the five great races, Caucasian, Mongolian, Malay, American, and Negro, and from many different tribes and nations of each.

* The following letter from Dr. Morton is in reply to a request made to him by Mr. John R. Bartlett, Secretary of the American Ethnological Society, for an account of his craniological collection, with a view to incorporate it in his "Progress of Ethnology." It was, however, found to be of so interesting a nature, that the Society determined to present it entire in this volume of its Transactions.

A primary object with me had been to compare the osteological conformation of our aboriginal tribes with each other, and also with the other races of men; and in pursuit of this inquiry I have accumulated upwards of four hundred American crania, pertaining to tribes placed at the remotest geographical distances, and subjected to almost every vicissitude of climate and locality of which this continent affords examples. I have already, in my *Crania Americana*, given the result of my observations; and I shall now repeat them with the greatest possible brevity.

The anatomical facts, considered in conjunction with every other species of evidence to which I have had access, lead me to regard all the American nations, excepting the Esquimaux, as people of one great race or group. From Cape Horn to Canada, from ocean to ocean, they present a common type of physical organization, and a not less remarkable similarity of moral and mental endowments, which appear to isolate them from the rest of mankind; and we have yet to discover the unequivocal links that connect them with the people of the old world.

Both Europeans and Asiatics may in former times have visited this continent by accident or design. That the Northmen did so, is matter of history. The Phenicians, Welsh, and Gauls, may possibly have done the same thing. They may have had some influence on the language and institutions of the country, and modified and extended its civilization. But granting all this (for the entire evidence is wanting), where are now these intrusive strangers? We answer, that if they ever inhabited this continent, they have long since been swallowed up in the waves of a vast indigenous population, which, in its present physical characteristics, preserves no trace of exotic intermixture. The Indian, in all his numberless localities, is the same exterior man, and unlike the being of any other race. His multitudinous tribes are not only linked by a common physiognomy and complexion, and by the same moral and mental attributes,

but also, as the learned and justly distinguished Mr. Gallatin has shown,* by the structure of their languages, and by their archæological remains. The latter (wherever we find them), present evidences of the same constructive talent, varying only in the degree or extent of its development. It is seen on the grand and imposing scale in Yucatan and Palenque, and in the sepulchral islands of Titicaca; and it is not less obvious in those humbler efforts that are every where scattered over the great valley of the Mississippi. Open the mounds, as Dr. Davis, Mr. Squier, and Dr. Dickenson have so laboriously and successfully done; and the very same arts and inventions, though in a mere rudimentary state, every where meet the eye. All point to one vast and singularly homogeneous race.

But it is necessary to explain what is here meant by the word *race*. I do not use it to imply that all its divisions are derived from a single pair; on the contrary, I believe that they have originated from several, perhaps even from many pairs, which were adapted, from the beginning, to the varied localities they were designed to occupy; and the Fuegians, less migratory than the cognate tribes, will serve to illustrate this idea. In other words, I regard the American nations as the true *autochthones*, the primeval inhabitants of this vast continent; and when I speak of their being of one race or of one origin, I allude only to their indigenous relation to each other, as shown in all those attributes of mind and body which have been so amply illustrated by modern Ethnography.

But to return to my collection of skulls. It also contains the embalmed heads of upwards of one hundred and thirty ancient Egyptians, taken from the tombs of Memphis, Thebes, Abydos, &c. These unexampled materials,

* Mr. Gallatin includes the Esquimaux dialect in this great family of languages. Further investigations may prove them to be an element of the great American Race; but I confess my own materials for this investigation have hitherto been altogether inadequate.

for which I am chiefly indebted to the kindness and zeal of my friend Mr. George R. Gliddon, have enabled me to prove, I believe incontestably, that the Egyptians had no national affiliation with the Negro race. Their cranial characteristics can be distinguished at a glance; and the two nations who are constantly represented, side by side, on the pictorial monuments of the Nile, are as different from each other as the white man and the negro of the present day: and yet these contrasts look back to a period of time little short of five thousand years from the present day.*

My later investigations have confirmed me in the opinion, that the valley of the Nile was inhabited by an indigenous race, before the invasion of the Hamitic and other Asiatic nations; and that this primeval people, who occupied the whole of Northern Africa, bore much the same relation to the Berber or Berabra tribes of Nubia, that the Saracens of the middle ages bore to their wandering and untutored, yet cognate brethren, the Bedouins of the desert.

Egypt, during the historical period, bears ample evidence of an Asiatic civilization engrafted on the rudimentary arts of the primeval inhabitants of the valley of the Nile; at the same time that our present knowledge, vastly augmented as it has been of late years, does not yet enable us to decide how much to ascribe to the conquering, and how much to the conquered nation.

But with respect to the ancient Egyptians themselves, the denizens of the soil during the Pharaonic dynasties, how completely are they every where identified on the monuments and in their tombs, as a people of a peculiar national physiognomy, which mingles the Japetic conformation on the one hand with the Semitic on the other; thus placing them, in the ethnographic scale, intermediate between the two!

* See Böckh, Bunsen, Henry, &c.

While, however, the pure Egyptian of the monuments is every where identified at a glance, those same monuments and the associated tombs, enable us also to detect the various exotic races with whom the Egyptians had intercourse in war or in peace. Among these are seen the people of Pelasgic origin, whose embalmed bodies are so frequent in Memphis, and whose great number is accounted for by the long period of Ptolemaic rule;—the Semitic nations, as seen in the Hebrew and Arab cast of features;—the Scythians, who are always stigmatized as enemies, and branded with a curse;—the Negroes, who are represented on the monuments as slaves and captives, and share the same anathema as the Scythians; and lastly, without enumerating the many subordinate divisions of the human races, the Negroid population, which seems to have been numerous and well protected. These Negroid inhabitants are obviously a mixed race between the Egyptian and Negro (or rather Negress), in which the features of the latter are in preponderance. I have a considerable number of their heads from the catacombs, especially of Thebes. It will be inquired, If Negroes were so much despised in Egypt, if they were in the position of slaves or bondsmen, how does it happen that their embalmed remains are of so frequent occurrence in the catacombs? This question is answered by a passage in Diodorus, wherein the historian informs us that every child whose father was an Egyptian, was from that circumstance free, and enjoyed the privileges of citizenship, even when the mother was a slave.

But to revert again to the collection of skulls, from which I have been able to derive so many interesting facts, I shall merely add, that it contains a fine series of the more distant Caucasian nations, Circassians, Armenians, Arabs, Persians, and Hindoos, with a smaller but characteristic group of Malays, Chinese, Polynesians, and Australians. Yet this large collection does not yet contain a single Es-

quimaux or Fuegian head! The extremes of this continent are not represented.

Pray make such use of this communication as your studies may suggest, and believe me, dear sir,

Very sincerely yours,

SAMUEL GEORGE MORTON.

J. R. BARTLETT, Esq.

ARTICLE V.

SKETCH OF
THE POLYNESIAN LANGUAGE,

DRAWN UP FROM

HALE'S ETHNOLOGY AND PHILOLOGY.

BY THEODORE DWIGHT.

THE POLYNESIAN LANGUAGE.

THE following brief sketch of the Polynesian language, and comparative view of its dialects, is formed of materials selected from the philological volume of the U. S. Exploring Expedition, pp. 4-42, and 229-356. On the chart of Oceanic migrations in the same volume, Polynesia is embraced by lines forming nearly an equilateral triangle, extending from about 23° N. and 160° W. long. to Waihu, in lat. 23° S. and long. 110°, and to Stewart Island, just South of New Zealand, lat. nearly 50° S. and long. 168°.

Of the ten principal groups, the expedition visited six, and several of the smaller islands; and information concerning most of the others was obtained from natives or intelligent residents. The materials used by Mr. Hale, the philologist, were derived from books, published or unpublished (chiefly written by American and English missionaries), and those obtained by himself and his associates in the course of the three years spent in Polynesia.

The natives are superior to most other races in physical endowments, being somewhat above the middle height, averaging 4 feet 9 or 10 inches, well-formed, with limbs and muscles well developed. The women are inferior in these points to the men, being too short and stout for graceful proportions. The color varies from a light to a dusky brown, with a slight tinge of yellow: the lightest shades being nearest the equator. The fairest are the natives of Fakaafo, in lat. 9° S. The New Zealanders and Hawaiians are inferior in stature and form, and have less food and

more labor. The hair is generally thick, strong, and black, with a slight tendency to curl. It is sometimes lighter—brown or chesnut. The beard is scanty, and commonly does not appear till middle age. They eradicate the hair from the body. The eyes are black, not large or light, generally rectilinear, with a few exceptions. The forehead varies much in height and angle of direction, but is usually well developed. The cheek-bones project a little, and more forward than laterally. The nose is commonly short and straight; but now and then long and aquiline. It is always a little depressed at the end and widened, which is the only distinctive mark of the Polynesian countenance, in which, in other respects, there is as great a variety as in Europeans. The mouth is generally the best feature, the lips being moderately full, the teeth even and well set. The chin is seldom prominent. The ears are large, and stand out. The form of the face is oval, and the whole is often handsome; though, by our standard, the general form of the cranium is not. The head is short and broad; the transverse diameter above the ears being nearly as great as the longitudinal, from the middle of the forehead to the occiput, rising highest at the crown, and very flat behind, especially in the females. Some minor peculiarities distinguish some of the groups.

No traces of the Papuan race were observed, and no frizzled or woolly hair in New Zealand, where some voyagers have reported them. The natives of Depeyster's Group, 10° W. from Fakaafo, and in the vicinity of Melanesia, bear some resemblance to the Oceanic Negroes.

The character of the Polynesians is distinguished by gayety and good humor, a desire to please and a willingness to be amused, quite opposed to the sullenness and pride of the Australians. They are also very fickle, and ready to adopt new opinions and customs, differing in this from most savages. They are bold navigators, and readily make long voyages in vessels in which our sailors would hesitate to cross a harbor, and have a lively curiosity to see distant

countries. They, however, are fond of fighting, but in the open field, and are indifferent to human suffering, and grossly licentious. Infanticide was frequent and universal, and still exists in the Marquesas and New Zealand. Cannibalism was universal. They are also thievish, but not treacherous. They are exceedingly superstitious, and have a pantheon, which regards almost every object in nature as a divinity or supernatural power. Diversities in minor particulars distinguish the groups from each other. The tabu is universal, as is tatoeing. The manufacture of bark-cloth by the Polynesians is one of their most remarkable traits, and is universal except in New Zealand, where the trees that furnish the material are unknown, and warmer clothing is required. The outrigger to the canoe is another striking peculiarity, which is wanting only in New Zealand and the Gambier group, where only rafts are used. It is rare in the Friendly Islands, where the sail is used on a mast that is shifted from one end to the other, so as always to keep the same side of the canoe to the wind.

The weapons are the club, spear, and sling; the bow being used only in sports. The manufacture and use of an intoxicating drink, called kava or ava, from the *piper methysticum*, is the last peculiarity of the race mentioned. The root is chewed, and hot water is poured upon it and then drunk, producing narcotic and stupefying effects.

There are only fifteen elementary sounds in the Polynesian, including all the dialects. These are the vowels *a, e, i, o, u*, and the ten consonants *f, k, l, m, n, p, s, t, v*, and a peculiar sound expressed by a modified letter *n*. There are but two dialects in which all these sounds are used. The omissions and changes found in the other dialects are particularized by Mr. Hale. In all the islands there is a great want of discrimination between some of the gutturals or palatals, linguals, dentals, and labials; the sounds formed by each organ usually being confounded. On this point

also, full particulars are given in the profound work before us.

Every syllable ends with a vowel, and a vowel is never connected with more than one consonant. Most of the radical words are dissyllables; the accent is generally on the penultimate; and, when on the antepenult or the final, is marked in the large vocabularies included in the volume.

There are no grammatical inflections. Their places are supplied by prefixed particles and the reduplication of one or more syllables. The particles are of three kinds: belonging to nouns, verbs, and conjunctives. Most of the dialects have a singular definite article, and an indefinite for both numbers. A number of other words, resembling indefinite pronouns, have some resemblance also to these articles, expressing some, some one, any one, a certain one, &c. &c.

In *substantives*, gender is marked by the addition of the words for male and female, or, more seldom, by distinct words. The plural is expressed in three ways: by the addition of indefinite or other pronouns or particles, by a change in the adjective, and by numerals. In other cases it is left to be inferred. The prefixed particles are the most commonly used. In Tahiti, Hawaii, and New Zealand, a peculiar plural is formed by adding *ma*, expressing the idea of companions.

Case is distinguished by prefixing particles, or by the collocation of words. When two substantives come together without particles to mark their relation, the second is always in the possessive. The agent is always marked by the particle *ko* or *a*. The genitive case is formed by a preposition, *a* or *o*, of, which are distinguished by some abstruse distinctions, very difficult to a foreigner. A peculiar form of the genitive is made by reversing the order of the nouns, and making the preposition coalesce with the article. *Ki* or *i* is prefixed to form the dative; and these, before persons, are changed to *kia* and *ia*. *I* is usually placed

before the accusative—*ia* for persons. *I* is the sign of the ablative, and means in, on, by, &c. After a passive verb, it is *e*, meaning from, by, &c. *E* is also the sign of the vocative.

Adjectives follow their nouns. They are generally made plural by the reduplication of a part, or, more seldom, of the whole word. The comparative degree is expressed by a circumlocution, and the superlative by repetition or intensive adverbs. The numerals are very similar in all the dialects, except that of Paumotuá, the vocabulary of which differs greatly from the others. The following specimen, from the Hawaiian, closely resembles the other dialects:

1, tahi.	20, iwatalua.
2, lua.	30, tanatolu.
3, tolu.	40, tanahá ta'au.
4, ha.	50, tanaha me ta umi.
5, lima.	100, iwatanaha me ta iwatalua.
6, ona.	200, lima tanahá.
7, hitu.	400, lau.
8, valu.	4000, mano.
9, iwa.	40,000, tini.
10, 'umi.	400,000, iehu.

Some curious differences are observed in the value of some of the higher numbers; they being, in some islands, taken for but half what they import in others; and this is conjectured to have arisen from the habit of counting by pairs. In counting some things, or kinds of things, certain words or syllables are added, importing something of their nature: as *toku* for persons, &c.

Pronouns.—These have three numbers: singular, dual, and plural. There are two forms to the first persons of the dual and the plural, one of which excludes the person addressed, and the other includes him. Most of the pronouns have abbreviated forms.

Possessive pronouns seem to have been originally the

personal, with the prepositions *o* and *a* prefixed. *No* is the first-personal pronoun in Tongan; and there may have been a second, like *ku*: but the changes made in different dialects are numerous.

Demonstratives are chiefly formed by prefixing the article to adverbs of place. They are simple, and nearly alike in all the dialects. There are no relatives, strictly speaking.

Verbs.—The verb has no inflections, except the reduplication of a part or the whole, to express repeated action. Particles are affixed to express all the other accidents. Time is little regarded; but place is very carefully expressed, and most of the particles are used for this purpose.

The verbal particles are those of affirmation, tense, mood, form, voice, directive, locative, and relative. Some of these are often necessary to indicate that the verb is not a noun or an adjective, which it might become, without any change of form.

The "particles of form" give to the verb various shades of meaning, something like the Hebrew conjugations. They are causative, desiderative, reciprocal, and potential. The passive voice is much used, and the particles expressing it are numerous, but all are suffixes, and nearly all end in *a*. The active forms of some of the verbs in the eastern dialects seem to have been derived from the passives of the New Zealand.

The "directive particles" indicate the direction of the action, whether from or towards the speaker, or the place of its origin. The "locatives" indicate the place where an action is performed. The "relatives" usually resemble the English relatives in sense, but often differ from them in some particulars.

Adverbs.—These are readily made by placing adjectives after verbs. Some mark a question; and the negatives have some curious peculiarities.

Prepositions have been mentioned under nouns.

Conjunctions are but little used. There appear to have been originally two conjunctions meaning and: *ma*, for nouns, and a vowel for verbs.

Interjections.—*Aue* is universal, and the only one. It expresses regret and grief in every degree.

Syntax.—This is very simple; as every word expressing a thing, a quality, or an action, may be used at pleasure as a noun, adjective, verb, or adverb, by the use of particles and the aid of the context. The nominative, if a pronoun, usually precedes the verb, but commonly follows it when a noun.

The order of words in a sentence is as follows, when the nominative is a noun: 1st, the sign of the tense, or the affirmative particle; 2d, the verb; 3d, the qualifying adverb; 4th, the verbal directive; 5th, the locative particle; 6th, the relative particle; 7th, the nominative, with or without the article before it.

By a peculiar construction an oblique case is often used instead of a nominative: as 'Herod's it was to seize John,' for 'Herod had seized John.' (This seems to be effected often by using the infinitive mode as the nominative, and the expressions are generally elliptical.)

The dual and plural pronouns are often used as conjunctions with proper names and persons: as 'Moses they two Elias.'

The formation of words is effected, 1st, by the duplication of single words, which often gives a frequentative or enhanced meaning: but sometimes duplication changes a noun to an adjective, and sometimes gives a new meaning. Some words are never doubled, and some never used single.

Ma is often prefixed to verbs, to form adjectives with a kind of passive sense.

Various affixes are used, which sometimes affect the meaning and sometimes do not. In some of the dialects the words for *easy* and *difficult* are combined with verbs.

The qualifying word is placed last : as bone-back, heart-kind, &c., for back-bone, kind-hearted.

In some of the islands a set of ceremonial words are found, wanting in others. They are employed either in paying compliments to dignitaries, or in expressing respect for them ; and the latter class are formed for temporary use, during the life of the personage, by substituting other words for such common ones as are often found among the syllables composing their names ; and similar words in the language are also often affected. But the original practice is restored on the death of the personage thus honored. To this peculiar custom Mr. Hale supposes we may refer the changes made in the languages since the discovery of the islands. Five of the simple numerals are different from what they were in the time of Cook.

Vocabulary.—Extensive as the vocabularies of several of the groups now are, Mr. Hale thinks that a further acquaintance with some of the dialects is highly desirable, as it may afford better means of obtaining a thorough knowledge of the original roots. The lexicon given by him, however, is believed to contain the mass of those vocables which constituted the primitive wealth of the Polynesian speech. “It comprises the terms for all the most common objects, qualities, and acts ; and would probably furnish a sufficient vocabulary for the purposes of ordinary intercourse among a semi-barbarous people.” According to the plan of the lexicon, the primitive or radical form of each word is first given, in large type, and then the variations in form and meaning are added from the dialects. Some cases of doubtful origin have been found, and some may prove erroneous. Supposed roots have sometimes been inserted, which have been deduced from derivatives ; but these are marked with an interrogation point. Some words of other languages of Malay origin have been occasionally introduced ; but in the lexicon the Polynesian is treated as if it were an original tongue. The lexicon extends from page

294 to page 364, and may contain 20 radical words on each page. This estimate would make the whole number of radicals amount to 1400.

The preceding sketch of the Polynesian language has been drawn up, partly for the purpose of making more generally known some of the important results of the Exploring Expedition, in the department most interesting to this association.

The Polynesian language presents several points of peculiar interest. Unlike all others, it is spoken by many small communities, occupying islands and groups of islands scattered, often at great distances from each other, over a vast ocean, and generally possessing marked physical resemblances, with numerous indications of a common origin, in their habits and customs. They border only on one other race, which is that of the Oceanic Negroes on the west, and with them they appear to have seldom or never amalgamated. After all the investigations which have been made, there is much difficulty in assigning any date to the settlement of the islands, and any other cause but accident. The language has strong affinities with the Malay, and is often referred to that tongue as its source; but no light has yet been discovered on the interesting question naturally arising from their comparison.

Looking eastward, in which direction it is customary to look for the progress of this remarkable people, although in a course against the prevailing winds, we as yet find no trace of them on the American continent, though further inquiries may well be made among the languages and customs of the native tribes.

Some of the principal Polynesian tribes or families have shown a remarkable degree of docility, under the instructions of Protestant missionaries, and have changed, in a short time, from a barbarous to a civilized state, and from gross and degraded paganism to Christianity.

The population of some of the principal groups, how-

ever, has been fast decreasing for some years, though wars, human sacrifices, and the exposure of the aged and the murder of infants have ceased; and some writers have represented their new institutions as producing unfavorable effects. But the islands suffered great evils from the frequent visits of foreign ships, during a period of about forty years, between their discovery and the first arrival of missionaries. The seeds of disease, intemperance, and other evils were extensively sown and rooted, and are still producing much fruit, in spite of the remedies so assiduously applied by the devoted and efficient friends of the race.

ARTICLE VI.

A GRAMMATICAL SKETCH

OF THE LANGUAGE SPOKEN BY THE

INDIANS OF THE MOSQUITO SHORE.

BY ALEXANDER I. COTHEAL.

LANGUAGE OF THE MOSQUITO INDIANS.

THE Mosquito Indians, at the present day very few in number, are confined to a strip of coast between Nicaragua and Honduras, running from Blewfields northward to Cape Gracias & Dios, where we find their principal settlement, and thence as far as Truxillo. Never having been subject to the Spaniards, they claim sovereign authority over the land, even including Blewfields, as well as the mouth of the river San Juan. Although of very intemperate habits, degraded, feeble, and powerless of themselves, they acquire importance from the territorial grants obtained from time to time of their "king" by English traders, sanctioned more or less by English authority. The present king, as well as his predecessor, was taken in a British vessel of war to Kingston, Jamaica; the ceremony of coronation was conferred upon him; and he was then sent back to his people, to live among them and govern them pretty much in the same manner as other Indian chiefs. He resides at the Cape, some forty or sixty miles back, on the only elevated land in his country. The tribe never penetrates the interior. The climate being warm, they use little clothing, being contented with an osnaburg shirt or trowsers, or both, if they can get them. Their subsistence is principally yams, bananas, plantains, sweet potatoes, squashes, cassada, and a little maize, cultivated by the women, and such fruits as are spontaneously furnished by nature. Fish, green turtle, guanas, peccaries and warries (two species of wild hogs),

and domestic hogs, being the chief animal food furnished by the males.

Their huts are mere thatched sheds of palmetto, or supa palm leaf, about six feet high to the eaves, and projecting about four feet beyond the line of the posts. Some of the better ones are enclosed by a stoccade of palmetto stalks, having the entrance in the gable. The men sleep in bammocks, and the women in krikries, or beds of hide or other material, placed up high, close under the eaves, to protect them from the weather. The villages may contain about a dozen or more huts each.

Their arts are confined to the making of pitpans, long square-end flat-bottom narrow canoes for river use, and doreys, or boat-shaped canoes for the sea, together with their bows, arrows, cotton turtle-lines, and turtle-harpoons. The harpoon heads cost them great labor; as they have to make them from old triangular saw-files, sharpening the point, and making a row of deep notches along each of the edges. They also manufacture a kind of ornamental cloak, waist-wrappers of bark fibre, and also nets and net-bags. Some of them occasionally hire themselves out as laborers to the mahogany cutters, and bring back osnaburgs, machetes, knives, files, iron pots, beads, and a few other small articles. For trade, they collect sarsaparilla, tortoise-shell, green turtle, and deer-skins, which they sell to the traders. They have little or no idea of any religion, but hold in dread the *Wulasha*, or evil spirit, and the *Li-waia*, or water-spirit. They count their days by *sleeeps* (*yapan*), their months by *moons* (*kaati*), and their years by *seasons* (*mani*).

In language they differ so much from the neighboring tribes, that they are unintelligible to each other, without the aid of interpreters. From their constant intercourse with the English, they have adopted many English words; but having an aversion to the Spaniards, and mingling less with them, few Spanish words have gained admission. The following is a selection of a few of their foreign words:

bip (beef)	ox	hese (hacha, S.)	axe
haras	horse	preis	price
pus (puss)	cat	müs	must (verb)
gat	goat	God	God
bérico (borrico, S.)	ass	Debil	Devil
miul	mule	heben	heaven
kuerko (puerco, S.)	domestic hog,	merai	mercy
the two species of wild ones be-		bles	bles
ing called <i>wari</i> and <i>bukaa</i>		tanx	thanks
käpi	coffee	tausan	thousand
twäka	tobacco	lend	lend
kénio (caña, S.)	sugar-cane	hair	hire
sal (sal, S)	salt	würk	work

The materials from which we derive our limited knowledge of the language of the Mosquito-people (Moskitonani), as they call themselves, we obtain from the few phrases and brief vocabularies of two or three European agents who have been amongst them, and from the occasional visits of two or three of the tribe, coming here on board of trading vessels. But it is principally to Mr. ALEXANDER HENDERSON, of Belize, Honduras, that we are indebted for a small grammar, privately printed at New-York in 1846, but never published. It was the work of "years of labor," avowedly for the object of biblical translation, and was by him for the first time reduced to a written system. From his work this sketch is made; and it is to be hoped that he will continue his researches, not only in this language, but also in such others as he may have opportunity to investigate.

This language is not only devoid of harsh gutturals, but appears to be euphonic in many of its etymological permutations.

The alphabet used is the English alphabet, with the addition, when necessary, of such marks to some of the vowels as may define and fix their sounds. *C* and *q* are omitted as being supplied by *s* and *k*. The sounds of *f* and *v* are wanting; in the adoption of foreign words, *p* is em-

ployed in place of *f*, and *b* in place of *v*: thus *pail* for *file*, *bip* for *beef*, *pork* for *fork*, *kāpi* for *coffee*.

English Words.	Mosquito Words.
a sounds as in <i>ah</i> , <i>far</i> ,	and in <i>aya</i> , <i>corn</i> ; <i>dia</i> , <i>who</i> .
ā " " " <i>aw</i> , <i>war</i> ,	" " <i>ruā</i> , <i>seed</i> , <i>nut</i> , &c.
au " " <i>ou</i> in <i>thou</i> ,	" " <i>paune</i> , <i>red</i> .
ai " " <i>i</i> in <i>rice</i> ,	" " <i>braiks</i> , <i>break</i> .
b " " <i>in but</i> ,	" " <i>bun</i> , <i>so</i> .
ch " " <i>child</i> ,	" " <i>ches</i> , <i>chest</i> , <i>box</i> , &c.
d " " <i>dust</i> ,	" " <i>dōra</i> , <i>thing</i> .
ē " " <i>bec</i> , <i>scheme</i> ,	" " <i>ēkuna</i> , <i>but</i> .
ē " " <i>met</i> ,	" " <i>lōla</i> , <i>money</i> , <i>silver</i> .
g " " <i>going</i> ,	" " <i>yang</i> , <i>I</i> , <i>she</i> .
h " " <i>behave</i> ,	" " <i>baha</i> , <i>that</i> .
i " " <i>pin</i> ,	" " <i>li</i> , <i>water</i> .
j " " <i>joy</i> ,	" " <i>Jan</i> , <i>John</i> .
k " " <i>key</i> ,	" " <i>kais</i> , <i>see</i> , <i>to</i> , <i>behold</i> .
l " " <i>last</i> ,	" " <i>silma</i> , <i>star</i> .
m " " <i>move</i> ,	" " <i>mami</i> , <i>year</i> , <i>season</i> .
n " " <i>no</i> ,	" " <i>naiwa</i> , <i>to-day</i> .
ō " " <i>sore</i> ,	" " <i>rōkbas</i> , <i>gun</i> .
ō " " <i>folly</i> ,	" " <i>pōli</i> , <i>very</i> .
p " " <i>pit</i> ,	" " <i>plun</i> , <i>food</i> .
r " " <i>rest</i> ,	" " <i>raia</i> , <i>new</i> .
s " " <i>slow</i> ,	" " <i>silpe</i> , <i>small</i> .
t " " <i>time</i> ,	" " <i>tōn</i> , <i>net</i> .
ū " " <i>rule=oo</i> ,	" " <i>pura</i> , <i>on</i> , <i>over</i> .
ū " " <i>but</i> ,	" " <i>būpaia</i> , <i>fasten</i> .
w " " <i>west</i> ,	" " <i>wā</i> , <i>two</i> , <i>both</i> , &c.
x " " <i>fix=ks</i> ,	" " <i>madix</i> or <i>madiks</i> , <i>show</i> .
y " " <i>you</i> ,	" " <i>yamne</i> , <i>good</i> .
z " " <i>zeal</i> .	

Article.

There is no article, either definite or indefinite; but the numeral adjective *kumi* (one) is used as in other languages, whenever the idea of number is prominent.

skiro bri-bal
skiro mala dauka
dōlar kumi bris

bring a knife
 make sharp the knives
 take a dollar

Adjectives.

Adjectives are placed after the nouns they qualify, as

dölar wal	two dollars
waikna yanne	a good man

They have no peculiar form to distinguish them; with the exception of the participles (in *n* preceded by a vowel), used as those in English in *ing* and *ed*.

1 kuka	2 mawan	3 enuru	4 poli	4	3	2	1
twisa	kriwan			(a) very bad	looking	woman	
				(a) broken	gun-lock		

In comparison, the adjectives *silpe*, small, and *uia*, much, have distinct words for each degree, which words are used in the comparison of other adjectives, viz.:

silpe, small	uria, smaller	katara, smallest
uia, much	kara, more	poli, most
yanne, good	yanne kara, more good	yanne poli, most good
konra, strong	konra kara, more strong	konra poli, most strong

The following construction is also used:

Jan almuk, Samuel almuk apia John (is) old, Samuel (is) not old

equivalent to John is older than Samuel.

They may receive all the temporal and pronominal suffixatives in like manner as verbs, of which examples will be given with the conjugations, uniting in one word propositions such as

he (is) good, or good-he I-(was)-good you-(will be)-good, etc. etc.

Numerals, like other adjectives, follow the noun. In their series they are vigintesimal, the highest numeral word being *iwanaiska kumi* (*one person*, as we may call it, not knowing its primitive meaning). They are variously compounded up to one thousand, for which they use the English term. The preposition *pura* (on, upon, above) is used in the sense of *and*, or *more*.

Table of Numerals.

1	1 kumi
2	2 wal
3	3 niupa
2+2	4 wal-wal
5	5 matasip (mita signifies "hand")
6	6 matlalkabe
6+1	7 matlalkabe pura kumi
6+2	8 matlalkabe pura wal
6+3	9 matlalkabe pura niupa
5×2	10 mata-wal-sip
(5×2)+1	11 mata-wal-sip pura kumi
(5×2)+5	15 mata-wal-sip pura matasip
(5×2)+6	16 mata-wal-sip pura matlalkabe
(5×2)+6+1	17 mata-wal-sip pura matlalkabe pura kumi
(5×2)+6+2	18 mata-wal-sip pura matlalkabe pura wal
(5×2)+6+3	19 mata-wal-sip pura matlalkabe pura niupa
1 person?	20 iwanaiska kumi
1 P+1	21 iwanaiska kumi pura kumi
1 P+6+3	29 iwanaiska kumi pura matlalkabe pura niupa
1 P+(5×2)	30 iwanaiska kumi pura mata-wal-sip
1 P+(5×2)+1	31 iwanaiska kumi pura mata-wal-sip pura kumi
1 P+(5×2)+6+3	39 iwanaiska kumi pura mata-wal-sip pura matlalkabe
2 P	40 iwanaiska wal [pura niupa]
2 P+1	41 iwanaiska wal pura kumi
2 P+6+3	49 iwanaiska wal pura matlalkabe pura niupa
2 P+(5×2)	50 iwanaiska wal pura mata-wal-sip
2 P+(5×2)+1	51 iwanaiska wal pura mata-wal-sip pura kumi
2 P+(5×2)+6+3	59 iwanaiska wal pura mata-wal-sip pura matlalkabe
3 P	60 iwanaiska niupa [pura niupa]
3 P+10	70 iwanaiska niupa pura mata-wal-sip
4 P	80 iwanaiska wal-wal
4 P+(5×2)	90 iwanaiska wal-wal pura mata-wal-sip
5 P	100 iwanaiska matasip
P×(5×2)	200 iwanaiska mata-wal-sip
P×(5×2)+5	300 iwanaiska mata-wal-sip pura matasip
1000	1000 tausan (from the English "thousand")

aima kumi, one time
kumi pura, one more

aima wal, two times
wal pura, two more

aima niupa, three times
niupa pura, three more

Nouns.

There are but few words which bear in themselves the idea of sex, such as *waikna*, man (*vir* and not *homo*); *mairen*, woman; *aixe*, father; *yapte*, mother; *dama*, grandfather; *kuka*, grandmother; *tukta*, boy; *kiki*, girl. The masculine is generally understood to be meant unless otherwise qualified, by the addition of the word *waikna* (man)

or *mairén* (woman), in the same way as we use in English the terms *servant*, *man-servant*, *maid-servant*, etc., thus :

lupia, child
lupia-waikna, man-child, i. e. son
lupia-mairén, woman-child, i. e. daughter

but for males, other than the human species, *wainatka* is used instead of *waikna*, as :

bip-wainatka, male-beef, i. e. a bull) *bip-mairén*, female-beef, i. e. a cow

There is a peculiarity in the terms of *brother* and *sister*, brothers calling each other *moinke*, and sisters calling each other *moinke*; but a brother and sister call each other *laikra*.

Except in rare cases, nouns have no plural form, the context generally being sufficient to denote whether the singular or plural is meant; but when necessary the word *nani* (people) is added, thus :

lupia-nani, children *mairén-nani*, women

The word *nani*, Mr. Henderson informs us, is only applied to the human species. Sometimes a plural is formed by affixing *ra* : as *inska*, fish; *inskara*, fishes. In two instances we find a plural by duplication : as, *wal*, other; *wal-wal*, others; *déra*, thing; *déra-déra*, things.

Neither do there appear to be any cases. If we consider the suffixes *ra* (to, at) and *na* (in, with) as case-endings, instead of prepositions, we shall have as many oblique cases as there are prepositions, for they all follow the same construction. The vocative and accusative do not differ from the nominative.

<i>mita</i> , the hand	<i>mita-ra</i> , to the hand	<i>mita-na</i> , in, with the hand
<i>aize</i> , father	<i>aize-ra</i> , to father	<i>aize-ne</i> , in, with father
<i>aize-nani</i> , fathers	<i>aize-nani-ra</i> , to fathers	<i>aize-ac-nani</i> , in, with fathers

Compounds are formed as in English, as,

plate wita	plantain-bunch (bunch of plantains)
plate taia	plantain-akin

nakro taia	eye-skin (eye-lid)
nakro laia	eye-water (tears)

In the following instance the name of the possessor is put last :

lupia-nani aize-ke the children (of) my father

A noun of agent is formed upon a verbal root by the duplication of the initial syllable, and the addition of the sufformative *ra*.

da-uk, root of dunkais, to make	da-dauk-ra, a maker
wa-ab, wasbais, to whistle	wa-waab-ra, a whistler
bu-ak buakais, to dip	ba-bauk-ra, a dipper
sma-lk smalkais, to teach	sma-smalk-ra, a teacher
ka-ub kaubala, to paddle	ka-kaub-ra, a paddler

When the initial letter is a vowel, the prefixed letter is then *a*, as,

u-lb ulbais, to write	a-ulb-ra, a writer
a-wuu aiwunais, to sing	a-iwunani-ra, a singer

Pronouns.

According to Mr. Henderson, they are twelve in number, and mostly declinable. They are given by him as follows, although some examples exhibit them somewhat different.

Six personal, viz. :

yung, I	wan, our
wan, thou	ai, he, she, his, her, hers, I, me, thou, etc.
wetin, he	bui, self, himself, itself, herself, themselves

Three relative,

wala, other	naha, this	baha, that
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Three adjective,

ansa, which	dia, who	naki, what
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Some of them, he says, are declined thus :

Nom. yung, I	Nom. yung-nani, we
Obj. yung, me	Obj. yung-nani, us
Dat. yung-ra, to me	Dat. yung-nani-ra, to us
Abl. yung-ne, in me	Abl. yung-nani-ke, with us

<i>Nom.</i> man, thou	<i>Nom.</i> man-nani, ye
<i>Obj.</i> man, thee	<i>Obj.</i> man-nani, ye
<i>Dat.</i> man-ra, to thee	<i>Dat.</i> man-nani-ra, to ye
<i>Abl.</i> man-ne, in thee	<i>Abl.</i> man-nani-kera, with ye
<i>Nom.</i> wetin, he	<i>Nom.</i> wetin-nani, they
<i>Obj.</i> wetin, him	<i>Obj.</i> wetin-nani, them
<i>Dat.</i> wetin-ra, to him	<i>Dat.</i> wetin-nani-ra, to them
<i>Abl.</i> wetin-ne, in him	<i>Abl.</i> wetin-nani-kera, with them
<i>Nom.</i> ai, he, she, it thou, I	<i>Nom.</i> ai, they
<i>Obj.</i> ai, me, thee, him, her	<i>Obj.</i> ai, them
<i>Dat.</i> mai, to thee	<i>Dat.</i> mai, to ye
<i>Abl.</i>	<i>Abl.</i> ai-wan, by themselves, yourselves
<i>Nom.</i> wala, other, each	<i>Nom.</i> wala-wala, others
<i>Obj.</i> wala, other	<i>Obj.</i> wala-wala, others
<i>Dat.</i> wala-ra, to other	<i>Dat.</i> wala-wala-ra, to others
<i>Abl.</i> wala-kera, with other	<i>Abl.</i> wala-wala-kera, with others

naha (invariable), *this* naha-nani, *these* naha-nani-ra, *to these*

baha (invariable), *that* baha-nani, *those* baha-nani-ra, *to those*

<i>Nom.</i> ansa, which	} plural, the same.
<i>Obj.</i> ansa, which, whom	
<i>Dat.</i> anse-ra, to which, to whom	
<i>Abl.</i> ansa-ne, in which, in whom	

Pronouns having neither gender nor number, those distinctions are of course made in the context.

For adjective possessive pronouns they use the absolute pronouns, as well as the possessive affixes,

-ke, <i>my</i>	-kam, <i>thy</i>	-ka, <i>his</i>
-k-ra, <i>to my</i>	-kam-ra, <i>to thy</i>	
-ke-ne, <i>with my</i>	-kam-ne, <i>with thy</i>	

We also find as affixes, *-ne*, *my*; *-m*, *thy*; and as prefix, *ai*, *his*.

First Person.

yung, I	yung kaikras,	I know not
" we	yung-nani brime,	we have
" our	yung-nani dukia,	our property (ours)
" my	yung main,	my husband
" my	yung dakia,	my property

-ke,	my	nise-ke,	my father
"	my	uple-ke,	my friend
-ne,	my	dukin-ne,	my property (mine)
ai	me (before a verb)	ai swia,	leave me
wan,	our	wan nise,	our father

Second Person.

man,	you*	man yeatna,	you gave
"	ye	man-nani wama,	ye go
"	your	man nise,	your father
"	your	man watla,	your house
"	your	man dukia, man-nani dukia,	your property (yours)
-kam,	your	pitpan-kam,	your pitpan
"	your	nise-kam,	your father
-m,	your	dukia-m,	your property (yours)
"	your	lupia-m,	your child
"	your	lupia-m nani,	your children
mai,	to you	mai-ykam-ne,	I will give to you

Third Person.

wetin,	he	man wetin wal,	you he both (you and he)
"	they	wetin-nani daukia,	they make
"	his	wetin-dukia,	his property
ai	his (before a noun)	ai 'upla--ai minn,	his people—his foot
"	her	ai lakra-nani,	her brothers
"	him	ai kuki,	with him
-ka,	his	nite-ka,	his hand

We find two instances of duplication in

man maia-m, your husband ai yung maia, my husband

The accusative pronoun of the third person does not appear to be used :

sakra-laia dakakamne	ripe (plantain) liquor I will feed (him)
swi wamne	I let (him) go
mai ykamne	to you I will give (it)
man yeatna †	did you give (it) †
man swiatuna †	did you leave (it) †
brime	I have (it)
yung shep sakras	I cannot find (it)
yung shep wiaia apia	I cannot tell (it)
yung-nani shep lubia apia	we cannot pass (them)

* You and ye, when used, denote respectively the 2d person singular and plural.

The word *ai* is a peculiar indefinite pronoun, which Mr. Henderson renders by each one of the other pronouns, substantive and adjective, in all their varieties of person, sex, and of course also of number and case. In most instances, when before a noun, it is equivalent to *his*; before a verb, to *me*; in other instances severally to each of the rest.

<i>ai was-ne</i>	<i>I am well</i>
<i>ai swis</i>	leave <i>me</i> , let <i>me</i> alone
<i>ai makaban</i>	he asked <i>me</i>
<i>ai maisumpaka</i>	inform <i>me</i> , proclaim to <i>me</i>
<i>roks ai yas kumi</i>	give to <i>me</i> , give <i>me</i> ,
<i>ipara kumi ai yks</i>	give to <i>me</i> a machete
<i>sma kumi ai yks</i>	give to <i>me</i> an axe
<i>leia ai bapa-pe</i>	the money let <i>us</i> pay
<i>hair ai mak-m-a apia-ke?</i>	will you not hire <i>me</i> (for hire, <i>me</i> will you not ask)
<i>hair ai mak-am-ne</i>	<i>I</i> will hire <i>you</i> (for hire, <i>you</i> <i>I</i> will ask)
<i>aisan ai dukia</i>	<i>I</i> wish to speak (speaking (is) <i>my</i> need)
<i>ai waks</i>	look about <i>you</i>
<i>ai kuki</i>	with <i>one another</i>

The word *dukia* (*property, possession, belonging*) is employed in the place of the absolute possessive pronouns, *mine, thine*, etc., as :

yang dukia, <i>mine</i> (my property)	yang-nani dukia, <i>ours</i> (our property)
man dukia, <i>thine</i> (thy property)	man-nani dukia, <i>yours</i> (your property)
wetin dukia, <i>his</i> (his property)	wetin-nani dukia, <i>theirs</i> (their property)

As to those called Relative, *wala, naha*, and *baha*, and the others called Adjective, *ansa, dia*, and *naki*; we find, from such examples as we have, that *wala* is adjective, and *naha* and *baha* both demonstrative, viz. :

Upla *wala dukia*, *other persons' property*; balla *wala*, *the other side*; dia *wala*, *who, which, what other, or other what*.

Naha untaia, *this letter*; *naha haras*, *this horse*; *naha akiro*, *this knife*.

Baha waikna, *that man*; *baha yul*, *that dog*; *baha man lupia?* *that your child?*

and that the other three, *ansa, dia*, and *naki*, are all interrogative.

Lupia anaa, *how many children?* alup anaa, *how many sloops?*

Dia bila, *who says (it)?* dia monaia, *what (is) to do?* dia pibia, *what will they eat?* dia wisma, *what say you?* dia kaikisa, *who knows?* dia dukia, *what (whose) property?*

Naki kabia, *how will it be?* naki lela, *how much money?* naki prais, *how much price?* naki-s-ma, *how (are) you?* naki monaia, *how to be done?* naki-ra, *how (is) he?* naki-s-ne, *how (am) I?* naki monat-ma, *how did you?*

Relative pronouns, properly so called, are not met with at all in the specimens of the language.

Adverbs.

Adverbs are usually placed after the adjectives they modify, but before verbs.

Saura poli, *very bad;* yanne poli, *very good.*

Aisas nara, *speak here.*

Karna kaus, *paddle fast;* karna pipisa, *he runs fast.*

Sipoe brin, *he has taken enough.*

Latera was, *go outside.*

Li put lukwisa, *the water already boils.*

Anki yulu kaikain? *when look for (see) mahogany?*

Yanne wabis, *it will go well;* saura auban, *badly laden.*

Yanne aiks, *clean (it) well.*

Prepositions.

They are but few in number, and find their places after nouns, etc. either separate or as affixes.

Watra bela-ra dirus, *go in-to the house.*

Tebil pura kausal pulks, *spread the cloth upon the table.*

Yung-kera, *with me;* yung-ru, *to me;* yung-ne, *in me.*

Conjunctions.

These are also few in number. They present little peculiarity, and will be found in the alphabetical list appended.

Man wais kaka, *if you go;* man eika lua kaka, *if you have not medicine.*

Yung dauki-kaka, *if I make;* wetin-nani dauki-kaka, *if they make.*

Sai, kuma-laia, *mustar sin, salt, vinegar, and mustard (salt, vinegar, mustard also).*

Skiro pork sin, *knife and fork (knife, fork also).*

Interjections.

Of these we have but three: *alai, alas! kais, lo! alakai, oh dear!*

Verbs.

With regard to this important part of the language, we are informed that they have mode, tense, and person, but that they are wanting in number. The modes enumerated are the infinitive, indicative, negative, imperative, and conditional. The tenses in ordinary use are the present, imperfect, perfect, and future; the pluperfect and others being formed by means of the auxiliary verb. The pronoun serves to determine the number; but in most cases, not being necessary, it is omitted. The elements both of time and person appear to be denoted by the various parts of the auxiliary verb *k-ai-a*, to be (?), which are appended as suffixatives, not only to verbs, but also to adjectives and nouns.

Conjugation of the Auxiliary Verb.

<i>Present Infinitive</i>	k-ai-a	to be
<i>Perfect Past (participle?)</i>	k-an	been
<i>Participle (present?)</i>	sika	being

Indicative Mode.

PRESENT TENSE.

yung-ne, I am	man k-am, thou art	wetin sa, he, &c. is
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IMPERFECT.

yung-k-at-ne, I was	man k-at-ma, thou wast	wetin k-at-a, he was
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PERFECT.

yung-k-r-e, I have been	man ka-r-üm, thou hast been	wetin k-am-ne, he has been
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PERFECT NEGATIVE.

yung-ko-rus, I have not been	man ko-r-üm, thou hast not been	wetin ko-rus-kam, he has not been
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FUTURE.

yung-k-am-ne, I shall be	man ka-ma, thou shalt be	wetin ka-bi-a, he shall be
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IMPERFECT CONDITIONAL.

yung-k-ra-ae, might be for all three persons.

For the *Imperative* the future is used, as well as for the so-called imperative third person, but the first person plural makes ka-pe, *let us be*.

Taking the root *dauk*, of the verb *dauk-ai-a*, to make, of which the conjugation will presently be given, we have in the present tense,

1st per. dauk-is-ne 2d per. dauk-is-ma 3d per. dauk-is-a

where *s* is the sign of present time; and *ne*, *ma*, and *a*, are the suffix pronouns of the three persons respectively, which pervade, in a more or less contracted or changed form, the whole conjugation.

So also adjectives appear as verbal roots in precisely the same manner, and like them, are used in every variety of tense and person. Thus, from the adjectives *yamne*, *good*; *saura*, *bad*; are formed,

1 2 3	3 2 1		
yamn-ie-ne	<i>I am well</i>	naki-s-ma	<i>how are you?</i>
mura-s-ne	<i>I am ill</i>	naki-s-a	<i>how is he?</i>
yamn-is-ma	<i>thou art well</i>	sauru-s-ma	<i>thou art ill</i>
yamn-is-a	<i>he is well</i>	saura-s-a	<i>he is ill</i>
yamne-kat-ne	<i>I was well</i>	sauru-kat-ne	<i>I was ill</i>
yamne-kat-ma	<i>thou wast well</i>	mura-kat-ma	<i>thou wast ill</i>
yamne-kat-a	<i>he was well</i>	sauru-kat-a	<i>he was ill</i>
yamne-kar-e	<i>I have been well</i>	} and so on for the other persons	
yamne-kam-ne	<i>I shall be well</i>		

Comparative table of Pronominal Suffixes.

{ mite-ke, my hand		
{ dukia-ne, my property	mite-kam, thy hand	mite-ka, his hand
yung-ke, or }		
yung-ne, { I am	man-kam, thou art	wetin-s-a, he is
dauk-is-ne, I make	dauk-ma, thou makest	dauk-is-a, he makes

It is evident from this, that the verb *to be* is represented in all the three persons by the duplicated pronoun, equivalent to our *I myself, thou thyself, he himself*, etc., an emphatic form, common in many Indian languages, and which has been mistaken by some grammarians for the true substantive verb.

The root (*k*) of this so-called verb *to be* appears as the final radical consonant in about one half of the verbs of the vocabulary. It appears again in various adverbs of time; such as *ankia, when*; *kaka, when*; *kanka, when*; *ka-nara, presently*; *neka, soon*; *maika, by and by*; *yunka,*

to-morrow; yāwanka, after to-morrow; etc., and it is translated by the attributive verb *stay* in these two examples, viz.: mani kanti bara kama? *how many moons will you STAY there?* nara kamne, *I shall STAY here.*

There is no passive voice found in any of the phrases or dialogues. The only approach to it is in the participial adjectives, and they are used as other adjectives.

List of a few Verbs to exhibit the formation of the Past Participle and the Imperative.

<i>Pres. Infjn.</i>	<i>Part. Perf. Past.</i>	<i>Imperative.</i>	
abakw- <i>ai</i> a	abakw-an	abak-s	to overthrow, capture
aibap- <i>ai</i> a	aibap-an	aibap-s	to pay
adk- <i>ai</i> a	adk-an	a-s	to buy, to sell
alk- <i>ai</i> a	alk-an	al-s	to catch
akb- <i>ai</i> a	akb-an	ak-s	to rub
bal- <i>ai</i> a	bal-an	bal	to come
bri- <i>ai</i> a	bri-n	bri-s	to take, to possess, to have
bri-bal- <i>ai</i> a	bribal-an	bri-bal	to come-take i. e. to bring
lu- <i>ai</i> a	lu-an	lu-s	to pass
maisampak- <i>ai</i> a	maisampak-an	maisampak-s	to preach, proclaim, inform
pusk- <i>ai</i> a	pnak-an	pu-s	to swell
pūsk- <i>ai</i> a	pūsk-an	pū-s	to build
k- <i>ai</i> a	k-an	kama (future)	to be, to stay
tak- <i>ai</i> a	tak-an	tak-s	to become, to stay
kaik- <i>ai</i> a	kaik-an	kai-s	to see, to know
yamne kaik- <i>ai</i> a	yamne-kaik-an	yamne-kai-s	to see good to i. e. to love

*Conjugation of the Active Verb DAUK-*ai*a, to make, with some of the tenses of BRI-*ai*a, to take.*

	<i>1st Person.</i>	<i>2d Person.</i>	<i>3d Person.</i>
1. <i>Present Infinitive</i>	dauk- <i>ai</i> a	to make	
2. <i>Present</i>	dauk- <i>ai</i> s	making	
3. <i>Prr. Part</i>	dauk- <i>an</i>	made	
4. <i>Agent</i>	da-dauk- <i>ra</i>	maker	
<i>Indicative.</i>			
5. <i>Present.</i> I make	dauk- <i>i</i> - <i>ne</i>	dauk- <i>i</i> - <i>ma</i>	dauk- <i>i</i> - <i>a</i>
I take	bri- <i>e</i> - <i>ne</i>	bri- <i>e</i> - <i>ma</i>	bri- <i>e</i> - <i>a</i>
6. <i>Imperf.</i> I was making	dauk- <i>at</i> - <i>ne</i>	dauk- <i>at</i> - <i>ma</i>	dauk- <i>at</i> - <i>a</i>
I was taking	bri- <i>at</i> - <i>ne</i>	bri- <i>at</i> - <i>ma</i>	bri- <i>at</i> - <i>a</i>
7. <i>Perfect.</i> I made	dauk- <i>r</i> - <i>e</i>	dauk- <i>r</i> - <i>um</i>	dauk- <i>an</i>
8. <i>Future.</i> I shall make	dauk- <i>am</i> - <i>ne</i>	dauk- <i>s</i> (<i>m</i>)- <i>ma</i>	dauk- <i>hi</i> - <i>a</i>
I shall take	bri- <i>m</i> - <i>ne</i>	bri- <i>(m)</i> - <i>ma</i>	bri- <i>hi</i> - <i>a</i>

Imperative.

<i>1st Person.</i>	<i>2d Person.</i>	<i>3d Person.</i>
9. <i>dank-p-e</i> , let us make <i>bri-p-e</i> , let us take	<i>dauk-s</i> , make thou <i>bri-s</i> , take thou	<i>dauk-bi-a</i> <i>bri-bi-a</i>

Conditional.

	<i>1st Person.</i>	<i>2d Person.</i>	<i>3d Person.</i>
10. <i>Present.</i> I may or can make	<i>shĕp dauk-i-s-ne</i>	<i>shĕp dauk-i-s-ma</i>	<i>shĕp dauk-i-s-a</i>
11. <i>Perfect.</i> I may have made	<i>shĕp dauk-r-s</i>	<i>shĕp dauk-r-ma</i>	<i>shĕp dauk-r-a</i>
12. <i>Imperf.</i> I should make	<i>dauk-ai-a-katne</i>	<i>dauk-ai-a-katma</i>	<i>dauk-ai-a-kata</i>
13. <i>Pluperf.</i> I might have made	<i>dauk-atne-kruo</i>	<i>dauk-atma-kruo</i>	<i>dauk-ai-a-kruo</i>
14. <i>Future.</i> I shall have made	<i>dauk-ai-a-kamno</i>	<i>dauk-ai-a-kama</i>	<i>dauk-ai-kaba</i>

Indicative Conditionally.

15. <i>Present.</i> <i>yung dauk-i-kaka</i> , if I make	} invariable as to person.
16. <i>Perfect.</i> <i>yung dauk-ru-kaka</i> , if I have not made	

The personal inflections being supplied, as already mentioned, in some of the tenses by pronominal suffixes, and being wanting in others, recourse is had to personal antecedent pronouns, both for person and number, whenever the context is not sufficiently explicit.

INTERROGATION is denoted, either by the tone of the voice, *yannis ma?* *you well?* by an interrogative word, *dia bila?* *who says?* or by the interrogative suffix *ke* always attached to the end of the word, e. g. *daukisne-ke?* *do I make?*

NEGATION by the medial formative *rus*, employed in the present and past tenses; by the particle *apia* (and *apia-ke*, interrogative), after the future; by the suffix *para*, in the Imperative (2d person); and by the insertion of *er* before the final *a* of the 3d person future, which is then used both as the first and third persons of the so-called imperative. In all these formatives the negative element is *r*; the adverb *apia* (no, not) being a separate particle: as *yung apia, I (am) not.*

1. *The Infinitive* is employed pretty much as in other languages. It is generally placed at the end of the sentence.

1	2	3	4	1	2	4	3
yung	shep	uk-ais	apia	I	can-not	go-up	
yung	shep	wi-ais	apia	I	can-not	tell	
d:ia	mon-ais			what	to-do?		
yulu	klak-ais			mahogany	to-cut		
inska	ndk-ais	bris-ma		fish	to-æH	have-you?	
cika	y-ais	bris-ma		medicine	to-give	have-you?	
bip-mairen	al-s	sub-ais		she-beef	catch	to-milk	(catch the cow to milk)

2. *The Participle in i-sa.* This is nothing more than the affix pronoun of the third person, answering to all the variations of gender and number, *he, she, it, they*, added to our present participle in *ing*: as, *dauk-isa, he (is) making*. It is the same as the third person of the present tense.

3. *The Participle in an* is formed directly upon the root; and when the latter ends in the vowel *i*, an *n* only is added. The same form is used also as the third person of the preterite, as,

baik-an	(it is) cracked	dikwa dia	baik-an	the pot	who	breaks (it)!
blaw-an	(he is) lean	piuta ai	minas saw-an	a snake	bite	his foot
twiaa	kriw-an	the gun-lock	(is) broken	upla ai	makab-an	a person asked me
laplew-an	(it is) lost	ane'ra	wan?	where	(is he) gone?	
dore	abukw-an	the dorey	(is) upset	mau walia	yanna monkan	your house (is) well made

4. *Noun of Agent*, formed by the insertion of the root between its duplicated initial syllable (as far as and including the first vowel) and the sufformative *ra*, as already mentioned amongst the nouns.

5. *Present Tense.* Its element, *s*, taking the personal suffixes *ne, ma, a*, is annexed to the root, either directly or by means of the vowel *i*, as a euphonic intercalation: *kak-i-s-ne, I know*. Interrog. *dauk-is-ne-ke? do I make?* Neg. *dauk rus ne, I make not*; *wetin nani dauk-rus, they make not*. Inter. Neg. *dauk rus ne-ke, do I not make?* The present sometimes takes the form *dauk-i* in the third person.

6. *The Imperfect* has for its characteristic *at*, the imperfect of the auxiliary without its root; but in the nega-

tive, the auxiliary appears in its entire form : *dauk-at-a*, he made ; *dauk-rūs-kat-a*, he did not make ; *man swis-at-ma* ? did you leave (it) ? *prui-kat-ne*, I was sick.

7. *The Perfect* takes *r* between the root and the pronominal suffix in the first and second persons. The third person has *an* without other suffix, being of the same form as the participle (No. 2, above). In the second person the pronominal termination *ma* becomes *am*. The negative formative is *rūs* without the suffix, and is invariable as to person. This negative form does not seem to be confined to this tense, but obtains in both present and past tenses. *Kaik-rus*, I do not know ; *yung wal-rūs*, I heard not ; *wetin dauk-rūs*, or *dauk-rūs-kan*, they have not made, or they make not.

8. *The Future*, in the first and second persons, is denoted by *m*, preceded by a euphonic vowel when the root ends in a consonant, but coalescing with the pronominal *m* in the second person. The third person has *bi*. This tense has no peculiar negative form. The separate adverb *APIA* (not) is employed instead of an inflection. *Bun monk-am-ne*, so I will do ; *walwal yapan w-am-ne*, (in) four sleeps (days) I will go ; *anki wama*, when will you go ? *dauk-am-ne apia*, I shall not make ; *dauk-bi-a apia-ke* ? shall he not make ? *dia pi-bi-a* ? what will he eat ?

9. *The Imperative* second person is regularly the same as the present without the pronoun. It is formed by adding *s* to the root ; but when the root ends in two consonants, the last one is generally dropped : *abakw-aia*, *abak-s* ; *alk-aia*, *al-s* ; *akb-aia*, *ak-s*. Some have other euphonic contractions, as, *adk-aia*, *a-s* ; while a few others employ the root without any addition, as, *bal*, come ; *busk*, dip ; *dib*, bury ; *pal*, fly. In the negative the particle *para* (not) is used, with or without the pronominal *ma*, as, *dauk-para* or *dauk-para-ma*, make not ; *ik-para-ma*, thou shalt not kill ; *implik-para-ma*, thou shalt not steal. In the other persons, which are commonly

placed with the imperative, we have for the third, *daukbia* (or, *daukbia-sika*), *let him make*; *wetin nani daukbia* (or, *daukbia-sika*), *let them make*; and for the first person plural, *dauk-pe*, *let us make*. In the negative of the first and third persons of both numbers, the termination *bi-er-a* serves for all. In fact, the difference is very little between the imperative and the future, with the exception of the negative adverbs. The only example found of the third person is *aia ti-bi-er-a*, *don't forget (it)*. Of the first we have these: *pauta muk-pe*, *let us kindle a fire*; *ai kuki aisa-pe*, *let us speak with one-another*; *sto-ra wal wa-pe*, *to the store both let us go*; *lëla ni bapa-pe*, *let us pay the money*. The following examples illustrate the imperative proper: *pauta wash mak-s*, *kindle a fire*; *dikwā bila yamne sik-s*, *pot-inside well*; *ai swi-s*, *leave me*; *man-ra ni swi-s aisa-s*, *to-you me let speak*; *watla pa-s*, *sweep the house*; *bri-bal*, *bring (it)*.

10. Of the Modes called *Conditional* and *Indicative Conditionally* by Mr. Henderson, he has furnished us with no examples except those which he renders by the English present. They are formed by combining *shëp* (can or may): 1. With the Present Indicative: *yung shëp sak-rus*, *I cannot find (it)*; *shëp warus*, *cannot go*; *yüng shëp dirus*, *I cannot drink (it)*. 2. With the Future: *onta-ra shëp wabia apia*, *cannot go into-the-bush*; *yüng nani shëp lubia apia*, *we cannot pass (them)*. 3. With the Infinitive: *shëp ulaia apia*, *cannot go-up*; *yüng shëp wiaia apia*, *I cannot tell*. 4. Independent: *shëp apia*, *(I) can-not*.

11. *The Perfect*. *Shëp* combined with the perfect indicative. Mr. Henderson has furnished us with a single tense of a verb, which, although of a different form, he renders in the same manner. It is the perfect indicative with the sufformative *ka*; thus: *aisare-ka*, *I may have spoken*; *aisarum-ka*, *thou mayest have spoken*; *aisan-ka*, *he may have spoken*.

12. *Imperfect*. Combination of the infinitive with the auxiliary imperfect indicative.

13. *Pluperfect*. Combination of the imperfect indicative with the auxiliary imperfect conditional.

14. *Future*. Combination of the infinitive with the future indicative of the auxiliary.

15 and 16. *Indicative Conditionally*. Combination of the third person present and perfect of the indicative with the adverb *kaka* (if) as a suffix. Invariable as to person and number.

The verb *bri-aiā* (to take) is used in the place of the verb *to have, to possess*; but not as an auxiliary. *Bris-ma kauāla wāmuk? have you cotton cloth? uia yung-nani bris-ne, plenty we have; au, bris-ne, yes I have (it).*

Another verb *lu-aiā* (to pass?) seems to supply the place of the negative of the verb *to have* in these examples, viz.: *lu-as-ne, I have none; man piuta-cika lua kaka, upla mūs pubia, you snake-medicine, if have not, the person will die.* There are no other examples of this, neither are there any of *bri-aiā* (to have) used negatively.

Compound words are few in number, and simple in their form. The following are the principal ones met with:

bip-lupia	beef-child (a calf)	maka-wisma	beg-gay (forgive)
lupia-waikna	child-man (a son)	kalla-yapaia	cloth-sleeping (bed-clothes)
klakla-dusa	arm-bone	yamne-kaikaia	to see good to (to love)
moskito-nani	mosquito-people	bri-balaia	to take-come (to bring)
laja-naai	likenem-people (family)	lend-monais	to make lend (to lend)
Englis-nani	English-people	mala-daukia	to make sharp
maja-mairen	spouse-woman (wife)	blēs-monaia	to make bless
wali lama-laja	turtle-belly-skin (sallipoe)	baha-wisa	there-from (since)
plato sukra-laja	ripe plantain liquor	lalma-ra	to the front (before)
mairen-tukta	woman-child (girl)	lala-kera	money-with (rich)

In construction, the order appears to be, 1st oblique case, 2d accusative, 3d nominative, 4th verb, which generally ends the phrase. Adjectives, adverbs, prepositions, and conjunctions follow the words they modify, or to which they relate, subject of course to many exceptions; but the following analysis will give a better idea of the phraseology than an imperfect description:

Wan aize. Our Father.

Our Father in-heaven there he, thy name(?) good shall make, thy
 Wan aize heben-ra bara-sa, man nena yamne daukbia, mau
 kingdom shall come, thy word shall make to-earth thereupon like to-heaven
 kingtain baibia, man bila daukbia tasba-ra pura-ra bako heben-ra
 also, to-me-people (to us) day every our day bread thou wilt give, our
 sih, yung-nani-ra eua bane wan eua tane ykma, yung-nani
 bad-deeds beg-thou wilt say to us, as other-person to us
 saura-monre makas-wisma yung-nani-ra, bamna upla-wala yung-nani-ra
 harming(?) also like we-forgive, temptation into also us show not
 traudinan sin bako makas wisne, temteshun belara sin wau madakperama;
 but bad from us remove.
 sekuna saura wina ai makma. Amen.

Introduction to the Commandments. Exodus xx.

God said all this he-saying I (am) thy Lord God, Egypt
 1. God aisisata puk naha aisisa, 2. yung man Dawan God, Egypt
 ground out-of(?) thee I did bring slave-land from also I (am) more
 tasbaia urna mai bre-balatne, alba tasba wina sin. 3. yung kara
 good God others thou shalt not take.
 yamne God, walwala hriparama. etc.

Alphabetical Vocabulary.

MOSQUITO.	ENGLISH.	MOSQUITO.	ENGLISH.
abakw-ia, abak-s	to overthrow, to upset	ati-a-ke	does it belong to
adk-ia, a-s	to buy, sell	su-pasa	south wind
abi	small cockle	aua, auya	liver, sand-bank, beach
ia	stomach	aub-an	laden
sibap-ia	to pay	aul-ia	to come
nika-nika	together	auahya	kind of bark net
siklab-an	fought	awas	pine wood
ama	time (fois)	kidi awa	fish line
nima-nimpa	three times	aya	corn
ia-ia	to speak, say	ba, baha	that, then
aisaw-an	spoiled	baha-wina	from then, since
njwun-ia	to sing, chant	baia	at, near, about
iaze	father	baia-wala	the other side
akb-ia, ak-s	to rub	baik-ia	to break
alai!	alas!	baiw-an	cracked, broken
alame	soot	won-bakia	short breath
alakai	O dear!	baki	nonsense
alē	father, God	bako	like
alk-ia, al-s	to catch, feel	bal-ia, bal	to come
alpak	old	banan	only
alwano	thunder	banna	because, for
ane	quickly	bane	every
ant	how many, where	bapa-pe	let us pay
anki, ankia	when	bara	there, thereto
ank-an	boiled	bara-sa	there it is [headstead
anea	how many	barbiku	barbecue, smoking-frame,
ansera	where	barke	gratis, nothing
nina-apala	saddle	bataae	kind of fish
mon-apala	mat, bed	bela	in, inside
apawā	moscow	bēla-munkam	dovey, canoe
apia	no, not	bela-ra	in-to, within, inside
apia-ke	used absolutely and also with the future tense.	bēriko (Sp.)	as
apo-sa	not there, not here	bēriko mairan	she-ass
arb-ia	to clear away	bik-a, bik-s	see, look
asmala	nails of the hand and feet	unta bika	a cover

hā-a	says	erb-aiā	to clear away
hāa ma	mouth, fry of fish	eva, ina, tva	day, daily
hāp (E.)	beef, neat cattle	g'igh	egg bird
hāp-bātanā	butter (beef-fat)	gnaān (E.)	crowns
hāp-tāika	milk	gut (E.)	goat [antelope]
hāp-wainatka	bull (male beef)	gūaco	gūaco-root (a snake-bite)
hāp-wairen	cow (female beef)	hāiyerd (E.)	rope
hāp-lupia	calf (child-beef) [tail]	baaa (E.)	axe, hatchet
hābia	boiled decomposed plant	hatak	kind of palm
hābe	lately	ibina	gibbonet
hāwura	juar row	ik-aiā	to kill
hāzue	tight, close	ihihi	a kind of guano
hāik-aiā	to dispatch	ili	shark
houke	full	imp'lik-aiā	to steal
hāi ai'po	flute	inco	hasten
hāi āwā	shin-bone	inda	plantation
hāi-aiā, bri-n, bri-s	to take, have, possess	ināā	weeds
hāi-hāi-aiā	to bring (take-come)	ira	kind of fish
hā-aiā, hū-s	to move, get out	ūka-nari	ground-itch
hāi	self	ūka	urine
hōkerika	half full	ūkika	bladder
hakra	yonder	ūpan (E.)	spoon
hukna	pecary	ūba	kind of cedar
hūg-būnka	elbow	ūhw-i	it leaks
hūk-aiā	to shoot	ūwa, iqa, ōwa	day, daily
hūlne	spotted	ūwā-wāla	the other day, yesterday
hūlne	kind of leprosy	ūwāwāka	twenty
hūn	so	ūwānt	feather down
hūn-sā	so it is	ūwī-s	sh down
hūne	day	ūwīt	circular
hūp-aiā, hūp-s	to stick in, anchor, fasten	ūst (E.)	chest
hūk-aiā, hūk	to dip	ūga	jigger, chigo [(aux. & p. r.)
hūw-sā	wet	ūā	to stay, to do, to put, to be
hūtanā	fat	ū-s	to love (to see good to)
hūlōng	squirrel	ū	put (imperative)
hūn	pigeon	ū	his (v. pronouns)
hūbe-kis	taste	ūbo	sea
hūk-aiā	to nourish, feed	ūhūra	bamboo
hūmā	grandfather, aged	ūnia	to, behold, see f
hūmā tara	great grandfather	ūniāka	whipray (fish)
hūmā	against	ūniā-aiā, kai-s	to see, to know
hūk-aiā, hūk	pebble	ūniā-ūniā-aiā	to love (to see good to)
hūk-aiā, hūk	to extinguish	ūniā-ūniā	kind of crab
hūk-aiā, hūk	to do, make	ūniā	crab
hūk-wāra	island, clump of trees	ūniāka	snags (plant)
hūwān	Lord	ūniā	oats, heart
hūbe	Devil	ūniā	if, then
hūmā	thing, something [thing]	ūniā	guano
hūmā-hūmā	things, anything, some-	ūniā-ūniā	nose
hūmā	who, which, what	ūniā-ūniā	nostrils
hūmā-kān	why	ūniā	pelican
hūmā-māra	what for	ūniā	fowl
hūmā-ūniā, di-n, di-s	to drink	ūniā lupia	chicken (child-fowl)
hūmā	vanilla	ūniā tara	domestic turkey (big fowl)
hūmā-wā	iron pot	ūniā-kom	your (v. Pronouns)
hūmā-ūniā, hūmā	to bury	ūniā-kame-binkan	calabash bowl
hūmā-dim	to enter	ūniā-kame-ūniā	guard bowl
hūmā-dim	doll	ūniā-kamka	skull (head-box ?)
hūmā-aiā	to put in, fix, plant	ūniā-kana	ordure
hūmā-aiā	maternal aunt	ūniā-kana	presently, day before
hūmā-aiā	to thirst	ūniā-kang-aiā, kang-s	when, mushroom, fungus
hūmā-aiā	land wind	ūniā-kangkūpata	to drive, ring, drum, sound
hūmā-aiā	dew	ūniā-kanti	herring
hūmā-aiā	dovey, boat-shaped canoe	ūniā-kāpi (E.)	moon (v. kai)
hūmā-aiā	rod	ūniā-kara	coffee [ing
hūmā-aiā	drummer fish (shaped)	ūniā-karna	more, setting-pole for fish-
hūmā-aiā	dorey (armadilla-)	ūniā-karna	throat
hūmā-aiā	pitpan (flat-bottom canoe)	ūniā-kāras	fast, quick
hūmā-aiā	property, possession	ūniā-kasak	alligator
hūmā-aiā	to belong to	ūniā-kasrika	go
hūmā-aiā	sweetly	ūniā-kasma	sky
hūmā-aiā	wood, timber, stick	ūniā-kata-ra	smoke
hūmā-aiā	cocoas (eddoe roots)	ūniā-kati	smallest
hūmā-aiā	bone	ūniā-kati-wāla	moon, month
hūmā-aiā	liquorice	ūniā-kān	next month
			yet, beyond

kañña	cloth	kumi	one
kaub-ala, kan-	to paddle	kungb-ala	to above
kaula	fresh ?	kuñkon	baboon
kanaa	less	kuñin	fales, falsehood
kaucō	still	kuñtri (E.)	country
-ka	my (v. Pronouns)	kuñwā	net-bag
-ka	interrogative suffix	kupi	heart
kaawal	smell	kupia	heart ?
kēnio (Sp. caña)	sugar cane	kupa-pine	generous (white heart ?)
kera	with	kuri	manee sapota
kiakī	Indian rabbit	kua-tera	wooden ladle (big) (turkey
kiakka	beams, bosom	kueo	omgōa or used black wild
kiama	ear	kuwa	hicksee (land-turtle)
ki-aiā	to laugh	kūf	eractly, until
kika	laugh	lais	water, juice, drink
kiki	girl	kaik-aiā, lai-s	to pour
kiika	hip	kaika	different ? probable ?
kiikan	snout-nose shark	kaika	brother, sister
kipi	ooch	aiā-lama	large catfish
kiā	flint	laima	in front
kiā	look, see (v. kaik-aiā)	laima-ra	opposite, before
aiāe kiā	foal	lama	breast, chest
darbo-ka	taste	lama	near, into, close
kiāra	knife	lama-ra	nearer, nearest
kiakamang	kidney	langw-aiā, lankw-aiā	to slacken, unloose
kiak-an	fried	lapia	not
kiāo	palm	lapia	the sun
kiāpma	hair	lapia-pura	noon
kiawā	stinging ray (fish)	lapw-an	lost
kiā?	fish hook	lata-ra	without, outside
kiā? aiā	fish line	latw-aiā	to be sore, to have pain
kiak-aiā	to cut, amputate, strike	laula, lauta	red mangrove
miā-kiak-an	bargain (hand-striking ?)	law-aiā	to dry
kiak-aiā	to be dirty	lei	head
kiakia	arm, shoulder of meal	lei-kanka	skull
kiakia-āsa	arm bone	lei-pura	forehead
kiā	again	leia	money
kiāto	large cockle	leima-pasa	east wind
kiākum	duck	leia-kera	rich (with money)
kiākum-tera	goose (big duck)	li	water
kiā	navel	li-prapaia	a leech
kiāi-taike-lapia	ooch	li-onra	water side, (beach ?)
konra	strong	li-brako	familiar friend
kosak	truth, truly	li-pas	between, centre
kranaa	through	liā	shadow, image
krāki	king-crow	liw-i	creep out
krabu	orabu-tree	liwi	tiger
krānekāse	jack (fish)	liwā	worm, water-spirit
krir	Carib sail-boat	liwā-ra	farther, far off (have not
kri kri	sleeping-loft	lu-aiā	to pass, to be without, to
krikom	gull, razor-bill	-to	your (v. Pronouns)
kriw-an	broken	mā (wā ?)	seed, nut, fruit
krako	kingfisher	mabiera pus	manner (pus)
krusa	Santa Maria tree	madek-aiā	to show, manifest
miām-krusa	flat	mai	to you (v. Pronouns)
kuahi	a paddle	maia	husband
kukus	kase-cup	maia wairā	wife (woman spouse)
kukū	cloth (clothes)	maia	beneath
kūñia-papaia	bed-clothes (sleeping)	maira	woman, female
kūñmō	quawn (kind of small tur-	mairen nani	women
kuang	net-bag	mairen tiara	young woman
kuawā	charcoal	mairen alink	old woman
kuerko (S. puerco)	domestic hog	maira	piece
kuerko wainetka	bear (male hog)	maia-mpah-aiā	to preach, proclaim, in-
kuerko mairā	sow (female hog)	maka	to beg, pray
kuerko lupia	pig (chūd-hog)	makab-aiā, maka-	beggar
kuerko-wina	pork (hog-flesh)	makakaba	to knit
koka	grandmother, matron	man-aiā, mam-s	you, your (v. Pronouns)
koka-tera	great grandmother	man	season, year
kuki	with, together	mani-wāla	next season, next year
kukika	windpipe, throat, neck	taabu-mana	taxes
kukli	calipever (fish)	māla	sharp
kulala	stool, seat	mapa	part (?) place (?)
kulā-aiā	to count, calculate	marbra	egg, round
kuma	thigh, leg of meat, pepper		

mala	for	pa-b-ai-a, pa-e	to sweep, clear out
mala	sharp	pa-blo	pavilion
malasip	five	pa-bara	Bpassab plum
mala-walqip	ten	pa-bun	kind of mangrove
matlakabe	six	pa-i (E.)	file
malis	mouse	pa-l-ai-a, pa-l	to fly, to be angry
malis tsra	rat (big mouse)	pa-l	strange
malis-a	kind of snake	pa-lk-ai-a pa-l-a	to spread
malwan	face	pa-lpa	manatee, June fish
malwan-winn	cheek (face-flesh)	pa-pala	shoulder
mék	now	pa-pala dusa	collar bone
mena	foot	pa-pa	kind of palm
mena-sinaia	toes (foot-fingers) [low]	pa-ra	{ not (used with the impera.), never, without, destitute
mena-bila	sole of the foot (foot-heel)	pa-sa	wind
mena-plakura	heel	pa-sa	east wind
minu	handle	pa-sa	south wind
iwika-mina	tobacco-pipe	pa-sa	kind of seed basket
misa	hand	pa-sa	white mangrove
misa-sinaia	fingers	pa-sa	fire
misa-sinaia-dusa	knuckles (finger-bones)	pa-sa	firewood
misa-bila	palm of the hand (hand- -fit [hollow])	pa-sa dusa	fire drink, spirits
mitam-kruske	bargain (hand-striking)	pa-sa laia	gunpowder
mila klak-an	male	pa-sa (E.)	rod
mipl (E.)	to go fishing	pa-sa	buttocks
Kul miaki w-ai-a	brother, sister	pa-sa	to eat
monke	to kindle	pa-sa	passion-flower
mok-ai-a	grandchild	pa-sa	widow
moie	to dp, to make	pa-sa	limb, branch, wing, quest
mon-ai-a, mon-s	bed, mat	pa-sa	a bow
mon-apia	below	pa-sa	white
monnaia	under	pa-sa	watermelon
monnaia-ra	master	pa-sa	bread-unt tree
mumata (E.)	to place, put, make, build	pa-sa	pine-apple
mun-k-ai-a	a bow	pa-sa	{ long, narrow, square-end, { flat-bottom canoe
pa-na-munka	canoe, dory	pa-sa	snake
beta-munkam	bamboo wood	pa-sa	centipede
muai	directly	pa-sa	whirling duck
muia	snook (fish)	pa-sa	youngest child
mupi	fermented liquor of ma- -ia, with (ticated cassava)	pa-sa	heel of the foot
muibia	this	pa-sa	trumpet-tree
na, na	to-day	pa-sa	to run
na-ia	to-day	pa-sa	plantain
na-ia	to-day	pa-sa	plantain drink
na-ia	to-day	pa-sa	ipa plantain drink
na-ia	to-day	pa-sa	to search, look for
na-ia	to-day	pa-sa	food
na-ia	to-day	pa-sa	very, truly, most
na-ia	to-day	pa-sa	gray, light blue, etc.
na-ia	to-day	pa-sa	boiled
na-ia	to-day	pa-sa	lungs
na-ia	to-day	pa-sa	a leech
na-ia	to-day	pa-sa	the spleen
na-ia	to-day	pa-sa	hurricane
na-ia	to-day	pa-sa	to be sick
na-ia	to-day	pa-sa	dead
na-ia	to-day	pa-sa	sick
na-ia	to-day	pa-sa	all, every, every body
na-ia	to-day	pa-sa	provision-tree
na-ia	to-day	pa-sa	flying-fish
na-ia	to-day	pa-sa	bobwood
na-ia	to-day	pa-sa	mad
na-ia	to-day	pa-sa	shoal of fish
na-ia	to-day	pa-sa	over, upon, on, more, and
na-ia	to-day	pa-sa	upon, above, thereon
na-ia	to-day	pa-sa	forehead
na-ia	to-day	pa-sa	gums of the teeth
na-ia	to-day	pa-sa	monkey-apple
na-ia	to-day	pa-sa	before, anterior
na-ia	to-day	pa-sa	pus, cat
na-ia	to-day	pa-sa	to swell
na-ia	to-day	pa-sa	to build
na-ia	to-day	pa-sa	already, now, soon
na-ia	to-day	pa-sa	ground-dove

-ra	to, at	sikakik	raccoon
-ra	comparative termination	sik-tara	crane (bird)
-ra	plural termination	sukra	ripe (plantain) Sp. Un
	{ with duplication of the	ania	deer
	{ initial syllable denotes the	solato	stool, seat
	{ noun of agent	some	earthen pot
raja, raiaka	new	sumpki	man-of-war bird
raw-i	it falls	supa	palm-fruit
ria	a little while	sufiri	sharpening-stone
risko	parakeet	ante	cockle
rökbüs	gun	swak-a	take off
rökbüs twisa	gun-lock (gun-tongue)	swäne	sour
rökbüs dusa	gun-stock (gun-bone)	awara	eel
röke-marbra	shot	swä-tara	partridge
röke-marbre bukum	buck-shot	awi-a	leave, let
rükrik	grout (fish)	swokwaka	slippery
rük-äia	to drag	tsia	skin, bark, likeness, feath-
rökika	ring-tailed monkey	tsia-nani	family, (likeness-people)
-sa	he, she, it (is)	tsira	armadillo
sab-an	struck, speared, harpoon-	duerka tsira	dory (armadillo-shape?)
sak-äia	to remove, carry away,	tak-äia	to become, to stay
sal (Sp.)	salt	takaak-äia, takas	to stop
sam-äia	to take	tak-w-äia	to go away, depart
sambra	high (?)	tala	blind
säne	green	tsuäia	side
sani	moho tree	tsania dusa	rib (side-bone)
sangkri	tooth-ache	tsäne	bread
saro	teal	tangue	blossom, flower
sasin	kind of fish	lang-wä	coco plum
saura	bad	tsank-i	it is wet
sasua äiza	black mangrove	tanta	thin, flat
sav-äia, sa-e	to stab, to harpoon	tsawä	hair
sekuna	but	tsawä	sweet potato
seriri	sensitive plant	tsäpa	tapir
shep	can, may	tsäpa	ardent spirit, grog
shringw-an, shrin-e	to be lazy	tsara	great
sia	lest	tsara	never
siaka	means of the nose	tsar-w-äia, tsar-	to roll away
siakwa	bocators (tortle)	tsarpum	larpern fish
siangia	great-grandchild	tsäba	land, world
siäwä	kind of snake	tsäba-mana	taxes
siäwä	fearful	tsäbain	ground, floor
siäwä (äia)	to wash	tsäko	green-head parrot]
sika	he, she, it (is)	tsäti	maternal uncle
sikäsi	opossum	tsätsä	passion-flower
sikoko	sheep's head (fish)	tsätsä (E.)	thousand
sikra	guava	tsätsä	damp
sikro	feast for the dead	tsaw-äia, tsä-	to drop, leak out
silak	nail harpoon	tsäbil (E.)	table
silpe	small	tsänkiki	paternal aunt
sinnök	long harpoon-staff	tsära	young
sip	not	tsära-tsära	young woman
sip-sa	it (is) not	tsäp-tsätsä	cow's milk
sipmo	enough	tsik-äia	to lose
sika	medicine	tsil	tinder-box
sikäsa	black, a banana	tsära	among
sin	also, and	tsäba	tapir
siri	fish	tsäw-i	it falls
sial	fish	tsängul	creek
sisimäsa	rod-fish	tsäke	immediately
siala	cotton tree	tsä	a bet
skera	without, exterior	tsätsä	arrow
skoro	knife	tsätsä	stone-bass (fish)
skäski	bad	tsätsä	nephew
säbia	greedy	tsätsä	boy
sätsä	a bud, a sucker, a sprout	tsätsä	yellow tail (bird)
sätsä	star	tsätsä	small catfish
sälöng	transparent	tsätsä	alligator
smak-äia	to teach	tsätsä (äia)	to wash
snäpoka	antelope	tsätsä	pumpkin
snik	peas	tsätsä	papaw
snutw-äia, snut-e	to leap	tsätsä	äw fish
sub-äia	to milk	tsätsä (E.)	tobacco
sukäsh	native doctor	tsätsä-tsätsä	tobacco-pipe
suklin	toad	tsätsä-äia, tsätsä-	to carry

twiti	snipe	wan	our (v. Pronouns)
twiti larab	plow (big-snipe)	ai-wan	by (one) selves
twia	tongue, sun-lock	warb-an	sick, troubled
twi	grass, pasture	wfri	warre (kind of wild hog)
twolne	thick	wab-ai	to whistle
uia	much	wackia	cootekoo-bird
ui-ai, ul-s	to cling, go up, land	wao	shrimp
ui-laha	large cat-fish	wao-krabo	crayfish (sea-shrimp)
walpa-ia	grouper-fish	wala	house, hut
wakro-ala	pupil of the eye	wala dawan	householder (house-land)
wak-ai	to turn over	wania	largest kind of snake
wane	porpoise	wawa	good for nothing
wb-ai, ul-s	to write, draw	wel (E.)	whale
wmpira	poor	wet	weary
ua	lip	wetan	be (v. Pronouns)
waka-tai	paper	wia	plenty
wake	hacking crane	wi-ai	to tell, say
wakribikum	kind of ophthalmia	wik (E.)	a week
wamais	beard (lip-butband ?)	wik-wila	next week
wata	beak, wood-fish	wil-ai	to tie
wata-bika	a cover	wik-ai	to fasten, close
wata	beak, forest	wia	from, at, in
wame-waira	gourd bowl	wina	fish, meat, trunk, body
wataia	a letter, note	win-ai	to call
wu	a mortar	winkor-aipe	ant-bear
wu	person, (body ?)	wira	heavy
wu	people	wirwir	noddy (bird)
wu-pai	every body	wis	a calm
wu	friend	wita	chief
wuraki	paternal uncle	wiri-pawa	large red ant
wuri	lever	wiak	fish-hawk
wuria	smaller, a little	wixtapa	hawk-bird
wuru	tie-tie-plant, basket, bag	won-wainka	breath
wura	white ant	won-bakia	short breath
wuru	john-crow (bird)	wop	quick, ahead
wu (ml T)	nut (?)	wuleaha	evil spirit, ghost
wu-wu	cocoas (addoo-roou)	wuli	turtle
wu-wu	coco-plum	wuli-lama-tai	calappa (turtle belly-shin)
wu-wu	good for nothing	ya (dia)	who, etc.
w-ai, wan, wa	to go	y-ai, y-an, y-as	to give
wai	leaf	yahai	path
wai	calf of the leg	yabra	north wind
wai-wai	paternal cousin	yulam	order
wai-wai	maternal cousin ?	yambe	good, well
wai-wai	man (vir), male	yambe-kaik-ai,	} to love (to see good to)
wai-wai	old man	yambe-kaik-s	
wai-wai	aged man	yandu	yame
wai-wai	young man	yap-ai	to sleep
wai-wai	bramh	yapan	a sleep, a day
wai-wai	crab	yape	mother
wai-wai	harpoon	yape-dia	ant
wai-wai	harpoon-staff (short)	yera	cassava (tapioca plant)
wai-wai	male (beast)	yiwanka	after to-morrow
wai-wai	root	yamai	niece
wai-wai	white-face monkey	yere	long
wai-wai	other, next	yk-ai	to give
wai-wai	others	yua	chip, piece
wai-wai	two, both, other, together	yuk-ai	to paint, color
wai-wai	four	yul	dog
wai-wai	to hear	yula	bee
wai-wai	stone, clouds	yulakane	no more
wai-wai	grouper-fish	yulo	mahogany
wai-wai	young	yung	I, me, my
wai-wai	womb	yunka	to-morrow
wai-wai	cotton		

For the purpose of facilitating comparison with the languages of North America, the following list has been arranged in the order of Mr. Gallatin's Comparative Vocabulary of Fifty-three Nations, in the second volume of the *Archæologia Americana*.

ENGLISH.	MOSQUITO.	ENGLISH.	MOSQUITO.
God	God Añ	to-night	o
wicked spirit	wajasha	season	tg-wáimeca
water spirit	liwá	wind	nani
man	waikna (vir)	lightning	paá
woman	mairén	thunder	yumúla
boy	tukta	rain	áwáwe
girl	kiki	fire	li (water)
child	lupia	water	penta
father	nize	earth, land	li, jala
mother	yapia	sea	tasba
husband	maia	river	kabo
wife	mala-mairen	creek	awála
son	lupia-waikna	island	tingmi
daughter	lupia-mairen	stone	dackwara
brother (of a male)	mojake	corn	wáipa
sister (of a female)	laikra	wood	aya
brother (of a female)	lel	leaf	dus
sister (of a male)	lauwá	bark	wala
head	mawan	grass	taia (skin)
hair	lel prucen	live oak	twi
face	kiam	pine-tree	ocopom
forehead	nakro	fish, meat	awash
ear	kanka	deer	wine
eye	bila	sawtope	sula
nose	twia	dog	anapoka
mouth	naia	squirrel	yal
toe	unmaia	rabbit	butoong
tooth	nana	snake	kiaki
beard	kiskla	egg	piata
neck	mita	duck	mabra
arm	mita-sinaia	goose (big duck)	kikim
hand	armaha	partridge	kikim taa
fingers	upia ? wina ?	partridge	bato
nails	biarra	partridge	swi lara
body	woyala	partridge	kusu
belly	mona	partridge	koúmea
leg	mona sensia	partridge	kalila tara
foot	duna	partridge	kalila
toe	kupi	partridge	kalila lupia
bone	tala	partridge	inska
heart	wita	partridge	pine
blood	upia	partridge	black
chief	wala	partridge	red
friend	dikwá	partridge	blue (light)
house, hut	sime	partridge	green
kettle (iron)	traha	partridge	great, big
pot (stone)	pinata-munka	partridge	small, little
arrow	asa	partridge	old
bow	akiro, kiam	partridge	young
axe	pitpan, dore	partridge	good
knife	tane	partridge	bad
canoe	twaka misa	partridge	dead
bread	twaka	partridge	I
pipe	kaabika	partridge	thou
tobacco	heben (E.)	partridge	he
sky	lapia	partridge	we
heaven	kai	partridge	ye
sun	ajilca	partridge	they
moon	iwa, oca (yupia)	partridge	this
star		partridge	that
day		partridge	all
		partridge	many
		partridge	ula

much	uis, poh	to run	piap-ais
who	dia	to leap	soutw-ais
near	lama	to come	bal-ais
to-day	na-ina	to go	w-ais
yesterday	ica-wala	to sing	aiwun-ais
to-morrow	yunka	to sleep	yap-ais
you	an	to speak	ais-ais
no	apia	to see	kaik-ais
one, &c. (vide p. 349)	kumi	to love	yumne laik-ais
to eat	pi-ais	to kill	ik-ais ?
to drink	di-ais	to carry	twilk-ais

NOTE.—Since the preceding was set up, a friend has brought to my notice the Report of a Prussian Commission sent to the Mosquito Shore for the purpose of exploring that country with a view to colonization.* The work contains a valuable chapter on the language of the inhabitants, and a vocabulary of five pages. It appears to be drawn up with much care, and I should gladly have availed myself of its contents if I had seen it earlier. It may not be amiss to give here the following list of authorities consulted by the Commissioners in making out their Report.

Jamaica, or a General Survey of the ancient and modern state of that Island, etc. 3 vols. London, 1774.

Capt. Henderson: an Account of the British Settlement of Honduras, etc., to which are added Sketches of the Manners and Customs of the Mosquito Indians, preceded by the journal of a voyage to the Mosquito Shore. London, 1811. 2d ed.

Bryan Edwards: History of the West Indies. London.

Some Account of the British Settlements on the Mosquito Shore, drawn up from the MSS. of the late Colonel Hodgson, etc. Edinburgh, 1822. 2d ed.

Orlando W. Roberts: a Narrative of Voyages and Excursions on the East Coast and the Interior of Central America, etc., with notes and observations by Edward Irving. Edinburgh, 1827.

Memoirs of Mr. William Keith and George Brysson, etc. London, 1836. 2 vols.

Robert Montgomery Martin: History of the West Indies, etc. London, 1836. 2 vols.

Thomas Young: Narrative of a Residence on the Mosquito Shore during 1839, 1840, 1841. London, 1842.

* Bericht über die im höchsten Auftrage Seiner Königlichen Hoheit des Prinzen Carl von Preussen und Sr. Durchlaucht des Herrn Fürsten v. Schoenburg-Waldenburg bewirkte Untersuchung einiger Theile des Mosquitolandes, erstattet von der dazu ernannten Commission. Berlin, 1845. pp. 274.

ARTICLE VII.

PRESENT POSITION OF
THE CHINESE EMPIRE,

IN RELATION TO
INTERCOURSE AND TRADE WITH OTHER NATIONS.

BY S. WELLS WILLIAMS.

PRESENT POSITION OF THE CHINESE EMPIRE.

THE recent events in Eastern Asia, and more especially in China, have directed increased attention towards the condition of the people inhabiting those countries, the nature of their institutions, the rank of mind their literature exhibits, and the probability of their retaining their nationality under the many influences now brought to bear upon them. The embassy of Mr. Cushing, since the conclusion of the late war, and the treaty of peace and commerce which he formed on behalf of the United States with Key-ing, the imperial commissioner, has moreover brought this and that country into closer relations, and led the government of Washington to look upon the Chinese with increased regard. The designation of Mr. Everett as resident minister to the Court of Peking, the first appointment of the kind made to an Asiatic court, indicates still further its desire to maintain amicable relations with the Chinese, and extend the intercourse so favorably begun.

These openings and changes have succeeded each other so rapidly that, without some special attention to their nature, we shall not easily understand their probable results, and what duties devolve upon the minister sent to reside among the Chinese, as the representative of this republic. For nearly threescore years American merchants have lived in China, and their ships have trafficked in her ports, without any further notice taken of their condition than an occasional visit of a ship of war, and the appointment of a consul at Canton to sign ships' papers. The governor-general in

that city usually ordered the former peremptorily to depart, refusing them all the courtesies expected in other countries; and took no further notice of the latter than to send him an edict now and then to be "enjoined" upon his countrymen. These days have passed, and better understood relations have now commenced, which, it is to be hoped, will be peaceably maintained, and be mutually advantageous. What ideas then does she entertain regarding this mission of our ambassador? and how will she receive him?—are questions which naturally arise upon hearing of the appointment of a resident minister to China.

The present rulers of China are Manchus, allied in physiognomy and origin to the Tungusians, Kamtschatdales, and Mongols, though most unlike the latter, with whom they are often confounded under the general appellation of Tartars. Their ancestors inhabited the cheerless valleys of the Ljau, the Songari, and the Sagalien rivers; from whence, under the name of the Kin, they came down upon the weak princes of China in the 9th and 10th centuries, and possessed themselves of all the country north of the Yangtze' kiang, the emperors holding their diminished court at Hangchau. The fierce hordes of Mongols, under Gengis, Okkoday, Kublai, and other chiefs, attacking them on the west from the steppes of Central Asia, at last drove them back to their original wildernesses, and possessed the whole land for themselves in A. D. 1280. This defeat dispersed them so completely, that the Kin were mingled among other tribes, and did not attract much notice until about 1600, when they began again to molest the Chinese possessions east of the Great Wall, and under the name of Manchus to dispute their right to these regions. Their numbers were so small, however, as to give little concern to the princes of the Ming dynasty, then on the throne, until about 1610, when their attacks took a definite character, and their chief publicly avowed his determination to seize the "divine utensil"—the throne of China—for him-

self, by force of arms, and revenge the wrongs he had received at the hands of its present occupants. A formal declaration of the seven grievances he had to avenge was made in 1616, but he made no great progress in his designs until 1642, when the advances of a rebel upon the capital, and the suicide of the monarch at the fall of Peking, led the Chinese general, Wu, then opposed to him, to propose a truce with the Manchu chieftain, Tientsung, and the cession of that part of the empire claimed by him, if he would assist in expelling the rebel from the capital, and reinstating the rightful prince. His offer was accepted, their combined forces marched to Peking, and the Manchus soon subdued the rebel army, and then possessed themselves of the country north of the Yangtze' kiang, in 1644, and of the whole empire in a few years.

Under the sway of six princes, they have since remained masters of the possessions of the house of Ming, and extended their dominion over most part of Central Asia, comprising the regions inhabited by their former conquerors, the Mongols, the lofty defiles of Tibet, and the fertile valleys of the river Tarim. Their empire now extends from the Hindu-Kush and the Kirghiz steppe on the west, to the Sea of Japan and the Pacific on the east; and from the high range of the Altai on the north to the still loftier chains of the Himalaya and to the China Sea on the south; being, with the exception of Russia, the largest consolidated empire in the world, and containing within its circuit nearly one third of the human race. The vigor of the Manchu character has enabled the emperors to maintain and settle their sway over this vast territory and its millions of inhabitants, with a comparatively small force; while the general principles of their government have been such as not merely to prevent the people from combining to resist their rule, and drive them beyond the Great Wall, as they did the Mongols, but in no little degree to attach them to it, with the impression that, bad as it is, a change of dynasty

would be for the worse rather than the better. The Manchu sovereigns themselves, after subduing the Chinese, wisely made no legal distinctions between their own and the conquered race, but admitted all persons equally to every civil office, who had successfully passed through the literary examinations, reserving the high military posts and the palatial dignities for their own relatives and countrymen, which in China are not stations of very great power.

The principles on which the government of this great empire, containing, according to the best data obtainable from its own censuses, as many millions of people as there are days in the year, is conducted, are mutual responsibility and universal surveillance. Joining to these the reverence entertained for the sovereign himself, as being the vicegerent of heaven's authority, and the fear felt by every individual of becoming obnoxious to the law for his own or his neighbor's faults, whenever it pleases the officers of government to accuse him; we have the chief reasons and the motives which hold the Chinese in subjection. The principle of mutual responsibility pervades every part of society, from the premier to the beggar: no one is too high to be above its reach, none too contemptible to be beneath its grasp; all are made more or less accountable for the acts of others, and liable to be involved for the misdeeds of persons whose doings they could not control at the time, and of whose existence perhaps they were almost unaware. The system of surveillance grows out of that of mutual responsibility, for a man naturally wishes to keep a watch over another whose actions are likely to involve him; though it has been made a part of official duty rather than a feature of society: the two are the complements of each other, and mutually strengthen those relations subsisting between superior and inferior officers, in the various departments of government. The fear of becoming entangled in the net of the law also grows out of the first principle, and renders a man indisposed to act in any untried way,

lest he thereby expose himself or others to punishment. Some officers of stronger minds may occasionally act on their own responsibility in cases demanding immediate action: but the number of such is few, and no encouragement is given to their proceedings; and if unsuccessful, no mercy is shown them. Each of them has a well defined sphere, within which he must move, and perform his functions so as not to interfere with those above him, or disarrange the lesser wheels below him, for whose good behavior he is responsible. Peace is the end and evidence of a good administration in China; and in every part of the country the officers try to maintain such a degree of peace as shall not at least implicate *them*, no matter how much suffering may be caused or injustice practised towards the people.

In connection with these principles, the peculiar prerogatives of the emperor form a bond of some strength for the maintenance of peace and obedience. According to the Chinese notions, heaven and earth are two powers which produce all things, and the superior beings inhabiting and guiding them, whoever they may be, have conferred the right to rule every thing between heaven and earth upon man; and *the man*, above all others of his race, chosen to sway this government on their behalf, is the emperor of China. To him alone is committed the governance of the race; and whoever disavows his authority, contemns his decrees, and resists his officers, despises the ordinances and opposes the designs of heaven. There can no more be two such vicegerents of heavenly authority in the world than there can be two suns in the firmament. This heaven-conferred trust is to be exercised to the good of mankind, in order to carry out the benevolent intentions of these powers; and general peace, good harvests, genial climate, healthy seasons, prosperous commerce, and loyal, industrious subjects, are all taken as evidences of its proper exercise; as their opposites prove the neglect and wickedness of the "one man" who expounds the decrees of heaven

and earth. Sitting, therefore, as God, he exalts himself above all that is called god, and demands divine homage himself from all who approach him, in the three-times-three prostrations they are required to make. His will is the will of heaven, and his divine orders are not to be counter-vailed; he alone can call down the blessings of heaven upon his subjects, and make known their petitions and distresses to the Supreme Ruler. This part of his royal character is religiously maintained in every branch of his government, and the same prostrations are required before his throne, his litter and his edicts, as before himself. All the tribes of Central Asia regard him in this light, and look upon him as the Grand Khan appointed by heaven, even although they do not pay him obedience. Having these ideas of his own position and prerogatives, the emperor looks upon all who visit his dominions as attracted thither by the splendor or benevolence of his reign and government, and desirous of ranging themselves under his mild sway. If they ask for trade, they do so by giving presents, and agreeing to the regulations the "son of heaven" makes; after which trade, which the monarch looks upon as not "worth a feather's down," is graciously bestowed upon the "far-travelled strangers," and their nation numbered among his tributaries. Whoever visits his court can, in his eyes, come in no other capacity than as a suppliant, for the idea of an equal any where else in the world involves an absurdity; and, unacquainted with the real position of his visitors, he also carefully avoids all inquiries as to their views in coming, so that he may neither grant nor deny any thing.

Embassies like those sent by the English, Dutch, and Portuguese, have been looked upon in the same light as those coming from Siam, Corea, or Lewchew; while nothing effectual was done, nor could it easily be, to remove this erroneous impression upon the Chinese. The former nations, like the latter, first asked permission if they

might come to Peking, by asking if an embassy would be agreeable: and having done this, their presents and their prostrations were all that were expected of them as tributaries; consultation upon business, or the adjustment of a tariff, forming no part of such a ceremony. This was the idea entertained by the emperor of China concerning these visits, and having no desire or means to understand them differently, he was led to act as he did towards the English merchants and superintendent in the matter of the opium, just as he would have done towards Siamese or Corean merchants, mixed, it may be, with some doubt and fear as to the consequences of his proceedings, but with no suspicion that he had not the most perfect right to suppress it, in any way he thought fit. His subjects held the same opinions, and looked upon the struggle which ensued as waged between a lord paramount and his liege subjects; rendered, moreover, still more righteous from its being carried on to deliver them from a dreadful curse, an overflowing poison, which they were sinking under.

This idea, once fixed in the minds of the people, becomes, therefore, a strong bond to hold them to the emperor and his throne; and to a great degree actually does so. Their impression, that if the monarch exercise his mission properly, peace and plenty will be their lot, moulds and energizes the public opinion which restrains him and his officers from outrageous tyranny; for their most venerated books uphold them in driving such agents of heaven's trust from their thrones as soon as they can. The officers of government, on the one hand, are afraid of proceeding to extremities by a wholesome fear of summary reprisals from an incensed people; and the people, on the other, are restrained from caballing against the sacred occupant of the throne, by the feeling of reverence for him. Other influences co-operate with this vice-heavenly character given to the sovereign to uphold his authority, such as his troops, his police, and his personal vigor; but they derive

most of their power from it, for these troops, these policemen, and all their officers, having sprung from the body of the people themselves, were brought up with this idea. This organization would soon become a tremendous engine of oppression, if the degree of intelligence in both rulers and ruled was unlike, and the government could find intelligent and obedient agents able to carry its laws and designs into execution, or infuse courage and discipline into its troops.

The war with England, and the humiliating peace of Nanking, gave a great shock to the notion that the emperor was really the lord paramount of all the nations, whose kings had sent tribute and tribute-bearers, but it did not disturb the conviction that he is the only proper medium of heavenly power; by waging war, the English only proved themselves more conclusively to be rebels against his rightful authority. The rightfulness of the supremacy he assumes over the whole world, even "over distant tribes, barbarous, remote, and disconnected," is still upheld, though no doubt weakened by his having been forced to permit official correspondence on terms of equality between his own and other officers. Still much remains to be learned before he will fully understand the rights of other nations, and perform his own part in national intercourse. His pride prevents his desire to learn, and his conscious weakness renders him suspicious of proposals to extend national intercourse, lest there be some underhand motives in the suggestion; and his dread of humiliating himself in the eyes of his own subjects, indisposes him to receive the envoys of other courts, whom he cannot coax or compel to perform the ceremony of fealty and worship, and from whom he can expect no presents. Here he will feel he must make a stand. The example of envoys and resident ministers, repeatedly coming into his presence, and standing or kneeling when others lay their heads upon his footstool, would, in his opinion, be disastrous to his influence, and weaken

his power over those but partially under his sway. When the proposal, therefore, comes to him from the United States, for instance, to allow a representative minister to reside at Peking, he will ask what he is to do there. None of his fellow-citizens trade there; and as his business is to oversee their trade, or superintend them while living in China, so, at the metropolis, he would not be at hand to do this. He does not come with tribute, he cannot oversee trade, he will not conform to the ceremonies of the court, nor has the emperor any intention or motive to reciprocate the courtesy, and send an envoy to Washington. Why then does he propose to live at Peking, and what is he to do there? Knowing the usefulness of resident ministers among Christian nations, the objections a potentate like the emperor of China would have to receive one at his court cannot be understood until we fully appreciate his position and feelings. That such would be his conclusion and mode of reasoning, when the proposition was made to him to receive a resident representative from a western power, are plain from the treatment of the English and Dutch embassies, and the peculiar character he bears in the sight of his subjects and seoffs. What course then shall western nations pursue in order to open such an intercourse with the emperor and his cabinet as shall be derogatory to neither, shall teach them the position they must take towards those who make these advances, and assure them of the real intentions held in making them? The difficulty is to steer such a course as shall, on the one hand, impress upon the Chinese the imperative necessity of accepting this medium of national intercommunication, in order to save themselves from the evils and disasters which ignorance will surely bring upon them; and on the other hand, to convince them that our intentions are pacific and sincere, not warlike or designing. The little regard for truth, and the arrogant pride which Chinese statesmen exhibit, presents a greater obstacle in the way of convincing them of the honesty of

foreign nations in the intercourse they seem to be so desirous to open, than their fear of the results of that intercourse. Judging others by themselves, they put no more confidence in their assertions than they expect to receive for their own; and make promises which they have little intention of performing, unless fear of reprisals compel their fulfilment. Pride, mendacity, and ignorance, constitute a triple cord of no small strength to bind the Chinese government to its old policy,—a wall more impregnable than its long pile of stones, to keep out the influences which alone can save it from anarchy. One mode remains,—to inform the imperial cabinet in such a way that it cannot plead ignorance, and with such copiousness that its objections will be all met, of the principles on which this intercourse is to be conducted, the advantages likely to flow from it, and the desirableness of entering into it. The equality now allowed in official communications, offers facilities for doing this without any loss of dignity. Such a preliminary step is not less proper than desirable, whatever might be the reception given to it by the court of Peking, and would comport well with the notions of the Chinese concerning international intercourse. No nation can do it with less suspicion than the United States, and from no other would it come with more weight.

The Chinese nation presents many features of peculiar interest, all impelling the well-wisher of his race to hope that the intercourse it cannot avoid any longer may be carried on without disorganizing its internal polity, or bringing down upon it the horrors of foreign invasion. The sufferings and destruction caused by an interruption of the regular occupations of agriculture and mechanics, in so densely populated a country, are increased many fold by the ignorance of the inhabitants, rendering them the prey of designing demagogues. In consequence of their long-continued seclusiveness and isolation, the mass of the people are utterly ignorant of the position, numbers, and resources of

the nations whose traders visit their ports ; and having no authentic accounts in their own language to inform their laudable curiosity, they have only been able to judge of these points by what they saw. The education which they receive in youth, in their national classics, does not tend to enlarge the mind, nor fit or incline it for independent investigation ; and thus, those whom we should suppose, from their habits of study, might be willing to learn concerning other nations, have no disposition to pursue such studies, nor indeed any opportunity, from the want of books. They are gratified with their fancied superiority, and indisposed to learn the truth, lest its unsoundness be made too plain, and its folly too painful. Time will doubtless remove this feeling, after accurate information has shown its untenableness ; but the fear is, that the misfortunes likely to result from it will irritate and provoke to reprisals, rather than encourage to reformation and liberality.

It is unnecessary, in this connection, to enter into any description of the books used in education in order to illustrate the peculiarities of the Chinese mind ; for the results are evidences of the powers and means employed. Learned without being intelligent, inquisitive without being inquiring, pedantic and opinionated but destitute of enlarged minds or confiding truthfulness, the Chinese scholar is rendered, by his training in the truisms of Confucius, a fit tool for the superiors who are to guide him, and a willing agent in perpetuating the government of which he is to form a part. Having had nothing higher than these writings, we cannot expect him to rise above them. Nor should we look for the refinement of feeling, the regard for veracity, or the expansiveness of judgment, which accompany minds educated in and invigorated by the teachings of the Bible. Those who undertake to open a national intercourse with the Chinese government must be on their watch in this particular ; though they will not find its high officers totally devoid of truth, or entirely destitute of judgment and in-

formation, but rather a compound of tact, cunning, and pride, evidencing minds whose intellectual powers have been cultivated without a corresponding development of moral principle. Patience with the moral obliquities resulting from this defective education, and consideration for the mistakes flowing from such erroneous notions of their own national position, will be often called into exercise on the part of the minister who first comes as the representative of another power. The good which will probably result from opening an intercourse with so vast a proportion of the human family, and bringing on that happy time when its various members shall study their own in advancing each other's welfare, offers a powerful inducement to try every means of explanation and instruction before resorting to force, and avert the horrors of war and bloodshed from the people. We have no idea that the American government wishes to wage war with the emperor of China; but by pressing the acceptance of a minister at his court, some untoward act may be committed which will demand reprisals or incur disgrace. What the Chinese lack, more than any thing else, is adherence to the truth: both officers and people are desirous of information to that degree that they will readily accept it, if brought to them in an intelligible manner; but they do not feel so satisfied of its veracity, or the honesty of those who bring it, that they are willing to act upon it. Yet the good faith with which the treaty of Nipchu has been kept for nearly two centuries with the Russians, and the exactness of the fulfilment of the harder stipulations of the treaty of Nanking, show that promises can be maintained, and something can be depended on.

The present encouragements to a very extensive or rapidly increasing traffic with the Chinese are not great. Supplying within itself every thing necessary to the support and luxury of its inhabitants, China offers less demand for foreign articles than if she were a rapidly settling country, and her people had already a taste for them. But as man-

kind are always desirous to buy where they can get goods cheapest, so will the Chinese buy what is cheaper and better than their own; and, if they can afford it, what is different from the common quality. But with what are they to pay for their new articles? Their tea, raw and wrought silk, cassia, camphor, and matting, are already exported in as great quantities as are wanted, and few other articles of their soil or products of their skill are demanded. We have many things they would be glad to get, but they cannot long pay for them in specie; no trade can thrive long in which this is the outgo. Still, were it not for the opium trade, the exchange of commodities would doubtless gradually and profitably increase. So long as this bane of industry and national prosperity is operating upon the Chinese, to the waste of property, destruction of life, and disorganization of government, so long will it be impossible for the trade to attain its full development. This trade gradually destroys what it feeds upon; and not only is the value paid out for it so much abstracted from the national wealth, but its use to a greater or less degree disables the consumer from reproducing his share. This abstraction of property would be less apparent, perhaps, if the poppy was grown and the opium made by the people which use it; then, as some among themselves would thrive and fatten on the ruin and vices of their fellow-citizens, the avails of *their* industry would remain in the country. Now all goes abroad, and leaves woes and diseases in its place, whose magnitude and suffering must be imagined from the efforts made by the emperor and his statesmen to rescue themselves and their subjects from them. Until this bane of all prosperous trade is removed, and we cannot see what principles or laws can effectually do it in time to save the body politic from disorganization as long as the opium is brought to their shores, it seems improbable that foreign trade will increase at all proportionate to the population and industry of China and its inhabitants. How noble an object on the part of the Ame-

rican minister to that country, to make the regulation of this contraband trade, and the ultimate rescue of the people from the evil effects of using the drug, two strong arguments, in his official intercourse, in favor of conceding that national reciprocity which he demands! No nation can do it so well as this; for the envoy of no other would be received with so little suspicion, or their suggestions entertained with less distrust. It may be a question whether it comport with the dignity of a nation like the United States to send an agent to a country which refuses the reciprocity, with the style and title of an ambassador, and whether a consul-general or *chargé-d'affaires* would not be as well for all practical purposes; but no one acquainted with the circumstances can doubt the desirableness of following up the intercourse now commenced between the two nations, or fully comprehend the momentous results likely to hang upon the course of action at first pursued. The American minister to China, and indeed all foreign employés residing in that country, have a more important post than merely to correspond between the governments sending them abroad and the Chinese officials; for they have the opportunity to assure the latter of their desire to see the rulers and vast population of that empire enter upon such a line of policy as alone can rescue them from the evils impending over them, and suggest such plans of action as seem most likely to effectuate this end. Among others which appear feasible, are, farming the opium trade, thereby offering for the emperor's consideration a middle line of policy between legalization and prohibition; the employment of scientific and upright men at his capital in preparing works calculated to do his people good; the publication of books adapted to convey accurate and useful knowledge in a popular form to his subjects; the support of youth in a course of learning to fit them for his own service as translators and interpreters; and lastly, as the only foundation of true improvement and safety, point him to the Bible and the adoption of its pre-

cepts as the source of all the prosperity of other nations, specially of his own. These objects, in our humble opinion, fall within the powers and responsibilities of an American minister to China; and glad should we be to see the office filled by a man disposed to use the influence his high station would give him, to their furtherance. He would not less benefit his own country and advance its commerce and reputation, than do good to those who are now afraid to act, because they fear the designs of all, and are just entering upon an intercourse with those whom they have been taught to despise, dread, and hate, but from which they see no delivery, and apprehend the worst consequences. When once they can be convinced of the good intentions of foreign nations, it will not be difficult to lead them to see the importance of cultivating better understood relations, and dispose them to accept instruction in those sciences which they see elevate the despised barbarians so greatly above themselves. If with the last, the diffusion of religious knowledge and books is extended, a basis of moral principle for the support of this superstructure will be formed, and confidence may then be felt that the people will be saved from the evils which now threaten them.

ARTICLE VIII.

SKETCH OF THE
MPONGWES AND THEIR LANGUAGE.

FROM INFORMATION FURNISHED BY REV. JOHN LEIGHTON WILSON,
MISSIONARY OF THE AMERICAN BOARD.

BY THEODORE DWIGHT.

THE MPONGWES AND THEIR LANGUAGE.

THE author has been a resident among the Mpongwes the last four years, in which time he has acquired their language, reduced it to writing, and composed several small elementary books in it. He has also written a grammar of their tongue, and a comparative view of the three principal languages of Middle Africa, viz. the Grebo, the Mandingo, and the Mpongwe, which have recently been published in the United States.

The Mpongwe people (heretofore generally noticed as the Pongos) occupy a small tract of country at and near the mouth of the Gaboon river, about twenty miles north of the Equator, just below the Bight of Biafra.

The territory embraces much good soil, with a favorable climate, and a great variety of natural productions. It also enjoys a favorable situation for trade.

The people are in several respects superior to the other tribes in the western parts of Africa.

These people are lively, cheerful, friendly, and confiding. They are also peaceable, and live in quiet among themselves, and without frequent quarrels with other tribes.

They have no traditions relating to their origin, migrations, or changes of habits; and there are no memorials known in the country calculated to throw light on their history. They have carried on an active trade, for more than two centuries, as factors between the interior tribes and foreign ships; and are very active and sagacious in

traffic, possessing a shrewdness equal to that of any people. As broken English is the language of trade along the coast, the acquisition of our language is esteemed a great advantage; and the children sent to the missionaries to learn it have made rapid progress.

They are much superior to all other tribes in their fondness for listening to and recounting fictitious tales. Of these they have a great number, relating chiefly to the numerous animals around them, whose habits are often described and represented with surprising exactness. The people spend a great part of their leisure in narrating and hearing these stories, many of which have more length, minuteness, and variety, than the fables of Æsop or his imitators, and more purity and ingenuity than the mythology of the Greeks and Romans. Several individuals are celebrated for their superior abilities as narrators or composers; and king Toko, a remarkable man in other respects, possesses a fluency of speech, a close observation, an intimate acquaintance with the animals around him, and a lively imagination, which render him one of the greatest favorites among the tellers of tales.

There is a secret society existing among the men, and another among the women, the objects and rules of which it is difficult to ascertain.

The government has the form of a monarchy, limited by an aristocracy of aged men, and by popular meetings; but the chief power resides in the latter. The councillors are treated with great respect, and public meetings are conducted with order and dignity; but the popular voice is decisive. When difference of opinion exists, it usually appears in the councillors; and the people, joining with one party, carry the day.

There is no system of religion, no priesthood, no idolatry, and no religious meetings. A very singular superstition prevails among the Mpongwes towards certain old earthen jars preserved in families.

The Mpongwes are supplied with light spears, six feet long, pointed with iron, and with short iron swords, of a peculiar form, which grow wider and heavier from the hilt to the end, where they are cut off square, throwing the weight towards the extremity, and fitting them to strike heavy blows. These weapons they purchase from tribes in the interior, who, like many other Africans, mine, smelt, and manufacture iron. The sword is carried in a scabbard, which hangs from a belt thrown over the left shoulder, straight down by the left side.

An event happened a short time since which illustrates their manner of making municipal regulations, as well as their light regard of weapons. Some of the wild young men had adopted the practice of pursuing and spearing cattle in the neighborhood of the towns, to such a degree that it had become a nuisance; and a public meeting was held, to put a stop to it. It was agreed that all spears should be given up to the chief; and he soon collected a large bundle. These being of no use, and not being likely to be wanted, the chief brought them to Mr. Wilson in his arms as a gift. One of them has been presented to the Society.

The Mpongwes manufacture a kind of cloth from long grass, which is woven with neatness, and is strong, flexible, and durable, but thin and cool, and therefore well adapted to the climate. This is worn by the people, who are slow in adopting a foreign dress, though the principal men have set the example. King Toko's portrait has been taken in the dress of an American sailor.

A substitute for woven cloth is in common use among this people, and still more among some of the more wild and interior tribes, by whom it is manufactured. It is made of the inner bark of the wild fig-tree, by maceration in water, and beating into thin sheets, which are combined by being laid crosswise and beaten together. In short, it is exactly the same thing as the felt or matting made in most of the islands of Polynesia, and called Tapa, differing

only in the material, which the islanders strip from the mulberry-tree. This kind of cloth has been regarded, by some writers, as one of the most striking peculiarities of the Polynesians; but the slightest comparison of the Tapa with this product of the western Africans, will establish their identity.

It happens that the Mpongwe women use an article of dress which forms one of the principal obstacles to their civilization. Every female who claims the rank of a lady, that is, who has slaves and is able to live without working, wears a number of heavy iron rings on the legs, extending from the ankle to the knee. And these are so cumbrous, and often so tight, as to render walking very slow, laborious, and painful. Yet, so submissive are they to fashion, that it has been found impossible to persuade more than four to abandon the foolish and hurtful practice, though the weight of metal worn on each leg is so great that the woman can scarcely raise it with her hand. The skin and the flesh often receive lasting marks from these voluntary fetters.

The general structure of the languages of Middle Africa is marked by so much regularity, exactness, precision, order, and philosophical arrangement, that a long period and great revolutions would seem necessary in the condition of the people, before any fundamental change could be made in their tongues. Although considerable differences exist among different tribes, there is reason to believe that they are of the secondary class only, or such as belong to dialects, while in primary points they are alike, and therefore should be considered as belonging to the same language. Of all those known in Middle Africa, none appear to be more nearly allied than the Mpongwe and the Sowhylee, or Swahere, although they are spoken on the opposite sides of the continent, and near the same parallel of latitude. Striking verbal and grammatical resemblances also exist between the Mpongwe and the dialects of South Africa and Mozam-

bique. But no affinities have been discovered with any of the languages north of the Mountains of the Moon. The latter are remarkable for their harsh and inarticulate sounds, and limited plan of construction; while the clear, melodious, and forcible sounds of the Mpongwe, and especially its ingenious and expansible system of etymology, excite great surprise, and naturally raise an inquiry for the origin of so rich a tongue, now in possession of a savage people. The following is a brief view of its leading peculiarities.

The Vowel sounds of the Mpongwe are nine: namely, *aw*, as expressed in English letters, and *a, e, i, o, and u*, expressed in the Italian. There are three diphthongs: *ai, ou,* and *yu*. The simple Consonant sounds are, *b, d, f, g* hard, *h, j, k, l, m, n, p, r, s, t, v, w, y,* and *z*. The following combined consonants are in frequent use, at the beginning and end of words: *mb, mp, mw, nd, nj, nk, nt, nty, ny, ngw, nw, gn, gw, fw* or *vw, zy, sh*.

Two vowels seldom come together in the same word; and when they meet in two words, either one is dropped, or both coalesce, or a consonant is thrown between them.

The *Parts of Speech* are, Nouns, Pronouns, Adjectives, Verbs, Adverbs, Prepositions, Conjunctions, and Interjections. There is no Article.

The *Nouns* have no gender nor case. Gender is expressed by adding the words for *male* and *female*. The possessive is expressed by placing between the nouns the definite pronoun, which agrees with the former of the two. The nouns form the plural in four different ways, according to which they are divided into four declensions.

1st. Those which begin with one or more consonants, prefix *i* or *si*. [The Italian sounds are given to the vowels here and in the following pages.]

2d. Those beginning in *e* drop that letter.

3d. Those beginning in *i* change it into *a*.

4th. Those beginning in *o* change it into *i* or *a*.

The few exceptions we shall not notice.

Verbal Nouns are of three classes. 1st. Abstract, made by prefixing *i* to the present indicative. 2d. Nouns of Agency, by prefixing *o*, and changing the final *a* of the verb into *i*. 3d. Frequentatives, by changing *a* final into *ini*. A kind of gerund is formed from the root by prefixing *n*, and changing *a* final into *ini*. And each verb may have a gerund for each of its conjugations.

The *Adjectives* have neither gender, case, nor degrees of comparison. They however have inflections for number, and these have four variations, which belong respectively to the four declensions of nouns: that is to say, every adjective has a form, both singular and plural, for nouns of every declension.

The following examples will illustrate the peculiarities of the nouns and adjectives alluded to:

Nyare, cow, is a noun of the 1st declension, and in the plural makes *inyare* or *inyare*.

Egara, chest, 2d declension, makes *gara*, chests.

Idambe, a sheep, 3d declension, makes *adambe*, sheep.

Otondo, basket, 4th declension, makes *itondo*, baskets.

Yam, my, is used after nouns of the first declension, singular, and *sam*, plural; *zam* with the singular of the second declension, and *yam* with the plural; *nyam* with the 3d declension, singular, and *mam* with the plural; *wam* with the 4th declension, singular, and *yam* with the plural. Thus we have:

1st declen.	<i>Nyare yam</i> ,	my cow.
	<i>Inyare sam</i> ,	my cows.
2d do.	<i>Egam zam</i> ,	my chest.
	<i>Gara yam</i> ,	my chests.
3d do.	<i>Idambe nyam</i> ,	my sheep.
	<i>Adambe mam</i> ,	my sheep.
4th do.	<i>Otondo wam</i> ,	my basket.
	<i>Itondo yam</i> ,	my baskets.

Adjectives are divided into three classes. 1st. Those which prefix "the definite pronoun" to express their num-

bers and declensions. 2d. Those which are inflected like the nouns. 3d. Those which are indeclinable.

The numerical system is decimal; and the orthographical structure of the numerals determines their classification as adjectives. The ordinals are formed from them by prefixing the definite pronoun of their nouns.

The numerals are :

1. m̄ari.	7. or̄agenu.	20. agomi mbani.
2. mbani.	8. nanai.	30. agomi nytaro.
3. iyaro.	9. in̄agomi.	100. nkama.
4. nai.	10. igomi.	200. nkama mbani.
5. tyani.	11. igomi na m̄ari.	1000. nkama igomi.
6. orowa.	12. igoni na mbani.	

There are but few adjectives, and the want of them is often supplied by a noun and a verb: as, *mi j̄aḡa njana*, I am sick with hunger, for I am hungry; *e jena ntȳani*, he sees shame, for he is ashamed.

In *Pronouns* the language is remarkably rich, and they have a great influence in rendering it flexible and precise. They are of three kinds: personal, relative, and definite.

The Personal Pronouns have no gender; they are varied to distinguish the singular and plural numbers, and the nominative and objective cases. They admit of no such classification as the nouns and adjectives. Three of them have several forms for the singular, a plural, and an emphatic form. So nice are the distinctions made in the use of some of the forms, that they have not yet been perfectly ascertained.

The Definite Pronoun is a remarkable feature of the language, and bears a striking resemblance to a part of speech in the Polynesian tongue. The term here applied is not logically correct, but, such is the variety of its uses and meanings that no better can easily be found. It is intimately interwoven with the structure of the language. It is employed in the place of pronouns of most other

kinds, and is readily incorporated with any verb beginning with a vowel. It assists in forming the infinitive mood, and the inflections of most nouns and adjectives, sometimes acts as prepositions, and performs a number of parts besides. Indeed there may be room, as in the Polynesian, to suspect that several distinct parts of speech are here confounded, through their identity or resemblance in sound.

There are four personal pronouns, or four forms of one personal pronoun, belonging to the four declensions of nouns and adjectives, viz. :

<i>Singular.</i>	<i>Plural.</i>
1st. yi, ya, yo.	ni, m, so.
2d. si, za, zo.	yi, ya, yo.
3d. nyi, nya, nyo.	mi, ma, mo.
4th. wi, wa, wo.	yi, ya, yo.

Many particles are used, in different positions, as adverbs, prepositions, and conjunctions. Other ends also are answered by some of the particles, which are too numerous and nice to be here particularized. There are also proper prepositions, conjunctions, and adverbs.

The *Interjections* are numerous.

The *Verbs* are the most remarkable part of the Mpongwe language, being inflected in a great variety of ways, and of many shades of meaning, which are expressed with great facility and precision. The rules are simple and easily practised; and there are only eight or ten verbs which are not regularly inflected through all the changes with perfect uniformity.

The characteristics of a regular verb are three: a consonant for the first letter of the root, two or more syllables, and a termination in *a*. The following are the only consonants with which regular verbs can commence: *b, d, f, j, k, m, n, p, s, t*, and *sh*. Each of these (except *m* and *n*) has a reciprocal consonant (usually a cognate one) to which it gives place in the imperative mood, and certain past tenses of the indicative. Examples:

mi boogu, I take.	wonga, take thou.
mi denda, I do.	tenda, do thou.
mi felia, I call.	welia, call thou.
mi jona, I kill.	yona, kill thou.

About four-fifths of the words are of two syllables, one-fifth of three, a very small number of four, and only one of five.

There are five simple conjugations, formed by final changes, which give the verb, respectively, a frequentative, a causative, a relative, and an indefinite sense. Besides, there are six, or more, compounded of these. Examples:

Simple Conjugations.

kamba,	to speak.
kambaga,	to speak habitually.
kambiza,	to cause to speak.
kambina,	to speak to or for some one.
kambagamba,	to speak at random.

Compound Conjugations.

kambizaga,	to cause to speak habitually.
kambinaza,	to cause to speak for some one.
kambinaga,	to speak to one frequently.
kambagambaga,	to speak often at random.
kambagambiza,	to cause to speak at random.
kambagambina,	to speak at random with some one.

Now, as each of these forms is inflected through all the moods, tenses, and voices, it thus receives several hundred changes. But beyond these are numerous shades of meaning, communicated by auxiliary particles and negative intonations; so that the regular Mpongwe verb presents a sight at once admirable and surprising.

The passive voice is formed by simply changing the final *a* into *o*: as *kamba*, to speak; *kambo*, to be spoken; and so through all the conjugations: as *kambago*, to be spoken habitually; and also in the compound conjugations, *kambizago*, to be made to speak habitually; *kambinazo*, to be made to speak for some one, &c.

The negative is expressed by an intonation or prolonga-

tion of the radical vowel, or of the particle, when one is used; and this rule also applies to every inflection of the verb, but with certain variations, noticed in the grammar.*

There are five Moods: indicative, imperative, subjunctive, potential, and infinitive, of which only the first two have independent forms, the others being made by the aid of particles.

The Tenses are five: one present, three past, and one future; but all these exist in only one of the moods, viz. the indicative. The Immediate Past is formed by prefixing *a*. The Present Past is formed from the immediate, by changing final *a* into *i*. The Indefinite Past changes the first consonant of the present past into its reciprocal letter. The Future adds *be* to the present.

Several peculiar limitations, and other minute points relating to the tenses, which are specified in the grammar, are necessarily omitted here. Number is in no way expressed by the verb. The same may be said of person also.

No substantive verb exists in the language. Its place is supplied by the use of certain parts of other verbs, which are often curiously applied.

There are no participles. A preposition before the radical form of a verb, is employed in their place.

The following are among the rules for the arrangement of words in sentences:

A possessive case follows the noun which expresses the object possessed, and has the definite pronoun between them, and agreeing with it: as *onwana w' Angila*, the child of Angila.

When three nouns come together, two of which would be in apposition and the other in the possessive case, they are separated by two definite pronouns, the second receiving as prefix, the definite pronoun of the first, and the third

* The following is the title of the Grammar printed in 1847: "A Grammar of the Mpongwe Language, with Vocabularies. By the Missionaries of the A. B. C. F. M. Gaboon Mission, Western Africa."

that of the second: as, *Sonya y'onwana w'Angila*, Sonya the son of Angila. Here the definite pronoun *y'* agrees in declension with *Sonya*, and *w'* belongs to *onwana*.

The adjectives (except *yè*, some, and the numerals above ten) follow their nouns, and agree with them in number and declension.

The personal pronouns are much used in the place of nouns, but never redundantly as in the Grebo and many dialects of Upper Guinea. The definite pronoun, however, is often redundant when the subject is an animal.

The nominative, in the simplest phraseology, precedes the verb; while the definite pronoun, if there be one, comes between them. In historical narrative the verb comes first, and the nominative between it and the objective. In compound sentences, these two forms are often used in different numbers. When the noun is nominative to two verbs, or is repeated before two verbs, the objective, with its definite pronoun, comes before the verb. The second verb is then always in the conjunctive form.

The verbs in a compound sentence are connected with the first, when that is in the indicative, by taking the conjunctive form, sometimes with the copulative conjunction superadded. Imperative verbs in a compound sentence take the two imperative forms.

A verb in the infinitive follows another verb, much as in English, either with or without the auxiliary particle. The conjunctive form is often used for the infinitive.

The passive voice is used with extraordinary frequency; while in most parts of Upper Guinea it does not exist, and in others it is generally avoided. In Mpongwe even circumlocutions, as the following, are preferred to more direct expressions: *aye go nago y'ayinginio*, he is in the house that was entered by him; *ayenio waa ne Jesus ekèva*, they were seen by Jesus with sorrow.

The principles of this remarkable language, which have been thus generally sketched in the preceding pages, have

been found to afford great advantages in expressing new ideas, especially some of those most important to a teacher of Christianity. This has been done by forming new derivatives from well known roots, by applying established rules: as, from the word *sungina*, to save, *oxunge*, a Savior, and *isungina*, salvation. As the progress of the people in intelligence shall demand it, many terms of science, art, &c. may be formed and introduced with equal facility.

APPENDIX TO "THE MPONGWES AND THEIR LANGUAGE."

The following facts were not obtained in season to be inserted in the preceding paper on the Mpongwes.

All that has been gathered in relation to the history of this people, is comprised in a few words. According to their traditions, their ancestors came down the course of the Gaboon River, from a great distance in the interior, and occupied their present country by force; but the tribe was then much stronger than it now is. They were long engaged in wars with several neighboring tribes, but have for a considerable time been on such friendly terms with the principal of them, that they have extensively intermarried with them.

They subsist chiefly on plantains and cassada, which they cultivate, as they also do yams, sweet potatoes, tania (a plant somewhat like the turnip), ground-nuts, Indian corn, sugar-cane, pumpkins, peas, beans, &c. Plantains and cassada they prepare for the table in various ways. There is an abundance of fish, which they take and consume in considerable quantities. Honey is supplied from the interior by the bushmen.

Their houses are as comfortable as the missionaries have to desire, except that they have no floor but the ground. They are made by setting poles in the ground, a foot apart, tying bamboo reeds to them horizontally, and covering the

roofs with leaves. They are spacious and well ventilated. That of King Glass is thirty-six feet by twenty-seven, and furnished, like those of some of the other richest men, with many of the conveniences of European houses.

The common dress of the men consists of a foreign fur hat or cloth cap, a shirt, and a cloth extending from the waist to the ankles. The women wear a large cloth, covering them from the armpits to the feet; and, when not engaged in work, they put a shawl or silk handkerchief over the shoulders. They have a peculiar and striking fashion of putting up the hair, in a tall, triangular mass, rising far above the head.

Polygamy is practised in proportion to the wealth of each man. Slavery exists, but in a form in several respects mild. The slaves are usually bought young from the bushmen, and treated with great lenity; for they can run away almost whenever they please, having easy access to the neighboring country. Nothing but choice, it may be said, prevents most of them from leaving their masters. The children of slaves are all free.

ERRATUM.

Page 194, line 18, for *Huqobanna*, read *Sebuyhill*.