AMERICAN JOURNEYS COLLECTION

A Voyage Round the World [excerpt]

by Jean-François de Galaup de la Pérouse

DOCUMENT NO. AJ-131

WISCONSIN HISTORICAL SOCIETY
DIGITAL LIBRARY AND ARCHIVES

|| www.americanjourneys.org || www.wisconsinhistory.org ||

A

VOYAGE
ROUND THE WORLD,

PERFORMED

In the Years 1785, 1786, 1787, and 1788,

BY THE

BOUSSOLE AND ASTROLABE,

UNDER THE COMMAND OF

J. F. G. DE LA PÉROUSE:

PUBLISHED BY ORDER OF THE NATIONAL ASSEMBLY,

Under the Superintendence of

L. A. MILET-MUREAU,

BRIGADIER-GENERAL IN THE CORPS OF ENGINEERS,
DIRECTOR OF FORTIFICATIONS, MEMBER OF THE CONSTITUENT ASSEMBLY,
AND FELLOW OF SEVERAL LITERARY SOCIETIES AT PARIS.

IN THREE VOLUMES,

ILLUSTRATED BY A VARIETY OF CHARTS AND PLATES,
IN A SEPARATE FOLIO VOLUME.

TRANSLATED FROM THE FRENCH.

THE THIRD EDITION.

VOL. II.

LONDON:
PRINTED FOR LACKINGTON, ALLEN, AND CO.
THE MUSES, FINSBURY SQUARE.
1807.

CHAPTER VI.

Departure from Easter Island—Astronomical Observations—Arrival at the Sandwich Islands—Anchor in the Bay of Keriporepo in the Island of Mowee—Departure.

1786. April. AFTER leaving Cook's Bay in Easter Island at ten in the evening, I stood to the northward, and coasted along the shore of that island at the distance of a league by moon-light. We did not lose sight of the land till the next day at two in the afternoon, at the distance of twenty leagues. The winds were constantly at south-east, and east-south-east. The weather was extremely clear, and did not change till the wind came round to the east-north-east, where it continued from the 17th to the 20th, when we began to catch bonetas, which constantly followed our frigates as far as the Sandwich islands, and afforded us almost daily, for six weeks together, a complete supply for our people. This excellent food preserved them in the best state of health, and after ten months' navigation, during which we were no more than twenty-five days in port, we had not a single sick person on board either of the vessels. Our course lay through unknown seas, and was nearly parallel to that of captain Cook, in 1777, when he sailed from the Society Islands for the

north-west coast of America; but we were about eight hundred leagues more to the east. I flattered myself, that in a traverse of near two hundred leagues we should make some discovery.—Men were constantly at the mast head, and I had promised a reward to the first who should discover land. To overlook a greater space, our vessels sailed abreast of each other during the day, with an interval of three or four leagues between them. 1786. April.

In this, as in all the rest of our traverses, M. Dagelet lost no opportunity of making observations of lunar distance. Their agreement with the time-keepers of M. Berthoud was so exact, that the difference never exceeded ten or fifteen minutes of a degree; and they served to prove the accuracy of each other. M. de Langle's calculations were equally satisfactory, and we knew every day the course of the currents, by the difference between the longitude by reckoning and that by observation. They carried us to the west as far as one degree of south latitude, with a velocity of about three leagues in twenty-four hours, after which they carried us to the east with the same velocity as far as seven degrees north, where they resumed their course to the west; and on our arrival at the Sandwich Islands, our longitude by account differed nearly 5° from that by observation; so that if, like the ancient navigators, we had possessed no method of ascertaining the longitude by observation, we should have placed the Sandwich Islands 5° more to the

1786. April. eastward. It is undoubtedly from this direction of the currents, formerly but little observed, that the errors in the Spanish charts have arisen.—For it is remarkable, that most of the islands discovered by Quiros, Mendaña, and other navigators of that nation, have been re-discovered in modern times, and have always been placed too near in their charts to the coast of America.—I must also add, that if the vanity of our pilots had not been a little mortified at the difference which was daily found between the longitude by account and that by observation, it is very probable that in making the land we should have had an error of eight or ten degrees, and consequently, that in a less enlightened age we should have placed the Sandwich Islands ten degrees more to the eastward.

These reflections left me considerably in doubt respecting the existence of a cluster of islands called by the Spaniards *la Mesa*, *los Majos*, and *la Disgraciada*. In the chart which admiral Anson took on board the Spanish galleon, and of which the editor of his voyage has given an engraving, this cluster is placed exactly in the latitude of the Sandwich Islands, but 16 or 17 degrees more to the eastward. My daily differences or errors of longitude induced me to think that these islands were absolutely the same;*

* In the course of the years 1786 and 1787, captain Dixon anchored three times at the Sandwich Islands, and having the same doubt as la Pérouse respecting the identity of these islands, and those called *los Majos*, *la Mesa*, &c. he made researches in

but what completed my conviction was the name of *Mesa*, which signifies *Table*, given by the Spaniards to the island of *Owhyhee*. I had read 1786. April.

consequence. His conclusion was precisely the same, as may be seen from the following extracts from his voyage.

"The islands los Majos, la Mesa, and St. Maria la Gorta, laid down by Mr. Roberts, from 18° 30′ to 28° north latitude, and from 135° to 149° west longitude,* and copied by him from a Spanish manuscript chart, were in vain looked for by us, and, to use Maurelle's words, '*it may be pronounced, that no such islands are to be found*;' so that their attention has uniformly been to mislead rather than be of service to future navigators." Introduction, page xiv.

"Our observations at noon, on the 8th of May, gave 17° 4′ north latitude, and 129° 57′ west longitude. In this situation we looked for an island called by the Spaniards *Roco Partida*, but in vain; however, we stood to the northward under an easy sail, and kept a good look out, expecting soon to fall in with the group of islands already mentioned.

"From the 11th to the 14th we lay to every night, and when we made sail in the morning, spread at the distance of eight or ten miles, standing westerly: it being probable, that though the Spaniards might have been pretty correct in the latitude of these islands, yet they might easily be mistaken several degrees in their longitude: but our latitude on the 15th, at noon, being 20° 9′ north, and 140° 1′ west longitude, which is considerably to the westward of any island laid down by the Spaniards, we concluded, and with reason, that there must be a gross mistake in the chart." Voyage, p. 49.

"On the 1st of November we looked out for St. Maria la Gorta, which is laid down in Cook's chart in 27° 50′ north latitude, and in 149° west longitude; and, the same afternoon,

* It is to be observed, that Dixon reckoned his longitude from the west, and Cook, in his third voyage, from the opposite quarter. Dixon's reason no doubt is, that, having shaped his course to the westward in doubling Cape Horn, this way of reckoning was more natural and more convenient to him.

1786. April, in the description of this same island by captain King, that, after having doubled the eastern point, a mountain appears in sight called *Mowna-roa*, which is visible at a great distance. "It is flat," he says, "at the top, making what is called by mariners table-land."* The expression in the English therefore corresponds with that in the Spanish.

Though the season was far advanced, and I had not a moment to lose, in order to reach the American coast, I determined to shape a course that should bring my opinion to the proof. The result, if I were in an error, must necessarily have been, that I should discover a second cluster of islands, forgotten by the Spaniards for perhaps more than a century, and should determine their position and their exact distance from the Sandwich Islands. Those who know my character will not suspect, that in this research I could be guided by any wish to rob captain Cook of the honour of this discovery. Full of respect and admiration for the memory of this great man, I shall ever consider him as the first of navigators, as the individual who has determined the exact situation of these islands, explored their coasts, ascertained the manners, usages, and religion of the inhabitants, and who has paid with his life

sailed directly over it. Indeed, we scarcely expected to meet with any such place, as it is copied by Mr. Roberts into the above chart from the same authority which we had already found to be erroneous, respecting los Majos and Roco Partida." *Ibid.* page 85 (French Editor.)

* Cook's Third Voyage, Vol. III. p. 103.

for all the information we at present possess respecting them. This man, I say, is the true Christopher Columbus of these countries, of the coast of Alashka, and of almost all the islands of the South-Sea. Chance has given the discovery of islands to the most ignorant; but the honour belongs only to great characters like him, to leave nothing to be regretted or desired respecting the countries they have explored. Seamen, philosophers, naturalists find alike in his Voyages that information which their respective pursuits may lead them to demand. All men, perhaps, and most assuredly all navigators, owe the tribute of praise to his memory; and shall I be thought to with-hold my portion at the moment of my arrival at the group of islands, where his career was so unfortunately terminated? 1786. April.

On the 7th of May, in 8° north latitude, we saw numerous birds of the petrel kind with some man of war and tropic birds. These two last species are said to fly but a small distance from the land. We likewise saw a great many turtle pass by our ships. The Astrolabe caught two, which we shared, and which proved excellent. The birds and the turtle were in sight as far as 14°, and I have no doubt that we passed near some island, probably uninhabited; for a rock in the middle of the sea would serve as the retreat of these animals rather than a cultivated country. We were then very near Rocca Partida and la Nublada. I directed my course so as to have passed almost in sight of the former, if it's longitude had been May. 7.

1786. May. accurately determined; but I would not run into it's latitude, because I had not, from my other projects, a single day to spare for this research. It was probable I might not meet with it, and I was little surprised at finding no signs of it's appearance. When I had passed it's latitude, the birds disappeared, and, till my arrival at the Sandwich Islands, through a space of five hundred leagues, we never saw more than two or three in a day.

15. On the 15th I was in 19° 17′ north latitude, and 130° west longitude; that is to say, in the same latitude as the cluster of islands in the Spanish charts, as well as in that of the Sandwich Islands, though a hundred leagues more to the eastward than the former, and four hundred and sixty to the eastward of the latter. As I thought it would render an important service to geography if I could succeed in erasing from the charts those idle names, denoting islands which have no existence, and perpetuating errors extremely injurious to navigation, I wished, in order to remove every doubt, to continue my course as far as the Sandwich Islands. I even formed the project of passing between the islands of Owhyhee and Mowee, which the English were not so situated as to be able to explore; and I purposed to land at Mowee, to obtain some provisions, and then depart without losing an instant. I knew, that by following my plan only in part, and exploring no more than two hundred leagues on this parallel, there might still be unbelievers: and

I was desirous that there should not remain against my conclusions the slightest objection. 1786. May.

On the 18th of May I was in latitude 20° north, and 139° longitude west, precisely upon the island Disgraciada of the Spaniards, but had no signs of land. 18.

On the 20th I had passed through the middle of the supposed cluster of los Majos; and had yet met with no indication of the vicinity of any island. I continued to run to the west, on the parallel between 20° and 21°, and at length, on the 28th in the morning, I was in sight of the mountains of Owhyhee, which were covered with snow, and soon afterwards saw those of Mowee, somewhat less elevated than the former. I made a press of sail to approach the land, but was still, when night closed in, at the distance of seven or eight leagues. I therefore stood off and on in expectation of day break, to enter the channel between these two islands, and to seek an anchoring place to the leeward of Mowee, near the island of Morokinne. Our longitude by observation agreed so perfectly with that of captain Cook, that, having traced our bearings upon the English charts, we found only 10′ difference, which we were more to the eastward. 20. 28.

At nine in the morning the point of Mowee bore west 15° north, and a small island also appeared, bearing west 22° north, which the English could not see from any of their positions, and consequently it does not appear on their chart which in this part is very defective; whereas 29.

1786. May. every thing which they have laid down from their own observations deserves the highest encomium. The aspect of the island of Mowee was delightful. I coasted along it's shore at the distance of a league. It projects into the channel in the direction of south-west by west. We beheld water falling in cascades from the mountains, and running in streams to the sea, after having watered the habitations of the natives, which are so numerous that a space of three or four leagues may be taken for a single village: but all the huts are on the sea-coast, and the mountains are so near, that the habitable part of the island appeared to be less than half a league in depth. To form a conception of what we felt, it is necessary to be a seaman, and to be reduced. as we were, in a burning climate, to a single bottle of water a-day. The trees which crowned the mountains, and the verdure of the banana plants that surrounded the habitations, produced inexpressible charms to our senses, but the sea beat upon the coast with the utmost violence, and kept us in the situation of Tantalus, to desire and devour with our eyes what it was impossible for us to attain.

The breeze had freshened, and we were running at the rate of two leagues an hour, which encouraged me in an endeavour before night to explore this part of the island as far as Morokinne, near which I hoped to find an anchoring place sheltered from the trade winds. This plan, dictated by the imperious necessity of circum-

stances, did not permit me to shorten sail, in order to wait for about a hundred and fifty canoes, which put off from the shore with hogs and vegetables, which the Indians proposed to exchange with us for pieces of iron. 1786. May.

Almost all these canoes boarded one or the other of the frigates; but our velocity was so great that they filled with water alongside, and the islanders were under the necessity of quitting the rope which we had thrown out to them, and swim away. They first hastened after their hogs, which they brought back in their arms, lifted them on their shoulders into their boats, out of which they emptied the water, and cheerfully entering them again, endeavoured by every exertion to recover the position they had lost near our frigates, and which had been instantly occupied by others that also met with the same accident. Of these canoes forty at least were overset, and, though the traffic between us and these honest Indians was infinitely agreeable to both parties, it was impossible for us to procure more than fifteen hogs and some fruits, and we lost the opportunity of bargaining for more than three hundred others.

These canoes had outriggers; each contained from three to five men; and those of middling size might be twenty-four feet long, a single foot only in breadth, and nearly the same in depth.—We weighed one of this dimension, which did not exceed fifty pounds. With these frail vessels it is that the inhabitants of these islands make excur-

1786. May. sions to the distance of sixty leagues, traverse through straits twenty leagues in width, such as that between Atooi and Wohaoo, where the sea is extremely high. But they are such excellent swimmers, that they will almost bear a comparison with the natives of the watery element.

In proportion as we advanced, the mountains seemed to withdraw to a distance within the interior of the island, which exhibited the form of an amphitheatre of considerable magnitude, and of a yellow green. No cascades were to be seen; the trees were less crowded together in the plain, and the villages composed of ten or twelve huts only, very remote from each other. At every instant we had just cause to regret the country we had left behind us; and, to add to our mortification, we did not find an anchoring place well sheltered till we came to a dismal coast, were torrents of lava had formerly flowed, like the cascades which pour forth their waters in the other part of the island.

After having steered south-west by west, as far as the south-west point of the island of Mowee, I hauled to the west, and afterwards to the north-west, in order to gain the anchorage where the Astrolabe had already brought up in twenty-three fathoms, hard grey sand, about a mile from the shore. We were no otherwise sheltered than by a large promontory topped with clouds, which from time to time occasioned us some severe squalls; and the wind changing every instant, we were continually dragging our anchors. This

road was rendered still more unsafe from our exposure to currents, which prevented our riding head to wind, except during the squalls; but these rendered the sea so rough, that our boats could not sail but with the utmost difficulty. I nevertheless immediately dispatched one to sound in different directions. The officer reported, that the bottom was the same all the way to the shore; that the depth diminished gradually, and that it was still seven fathoms at two cables' length from the landing place; but when we weighed our anchor, I found that the cable was rendered absolutely unserviceable by friction, and that under a slight stratum of sand there must have been a rocky bottom. 1786. May.

The Indians of the villages of this part of the island hastened alongside in their canoes, bringing as articles of barter, hogs, potatoes, bananas, roots of arum, which the Indians call *tarro*, with cloth and some other curiosities making part of their dress. I would not permit them, however, to come on board till the frigate was moored and the sails handed. I told them, that I was *taboo*,*

* A word which, according to their religion, signifies a thing which may not be touched, or a consecrated place into which they are not permitted to enter.

For the signification of words in the language of the Sandwich Islands, reference must be made to the vocabulary of captain Cook, who made a long stay at these islands, and who possessed advantages which no other navigator has been able to procure to render his communications with these people the more instructive. To these motives of confidence we may add the well-known talents of Anderson, from which he derived the greatest assistance.

1786. May. a word which I had learned from the English accounts, and which was attended with all the success I expected. M. de Langle, who had not taken the same precaution, had his decks in an instant crowded with a multitude of Indians. But they were so docile, and so apprehensive of giving offence, that it was extremely easy to prevail on them to return to their boats. I had

Dixon has given a vocabulary of the language of the Sandwich Islands, in which the word *taboo* signifies embargo, though in his journal he explains the ceremony of the *taboo* in the same manner as captain Cook.

The following is a comparative view of words of the same meaning, taken from the two vocabularies, which proves the errors that may be made, when, to a perfect ignorance of any language, is added the uncertainty of the mode of expressing the pronunciation of words, which varies according to the individuals who utter them.

English Words.	Correspondent Words from the Vocabularies of	
	Cook.	Dixon.
Cocoa Nut - - - - -	*Eeneeoo* - - - -	*Neehu.*
The Sun - - - - - -	*Hai, rua* - - - -	*Malama.*
Gourd or Calabash -	*Aieeboo* - - - -	*Tibo*
Woman - - - - - -	*Waheine* - - - - / *Maheine* - - - -	*Cohaheene.*
Brother - - - - - - -	*Tooanna* - - - -	*Tilu-nanie.*
Cord - - - - - - - -	*Heaho* - - - - -	*Touro.*

The vocabulary of Cook, though the most perfect, comes also in support of my assertion. We find the word which denotes woman in two different places, no doubt by repetition. It is probable, that he learned it from two different individuals whose pronunciation was different: for in one place he writes *waheine*, and in the other *maheine*. (French Editor.)

no idea of a people so mild and so attentive.— When I permitted them to come on board my ship, they did not advance a step without our concurrence; they always evinced a fear of displeasing us; and the greatest good faith prevailed in their dealings. Our pieces of old iron hoop strongly excited their desires, and they showed no want of address in making a good bargain to procure them. They steadily refused to sell any quantity of cloth or number of hogs in the wholesale way, aware that they might derive more profit by the separate sale of each individual article. 1786. May.

This habit of traffic, and knowledge of iron, which, from their own confession, they did not acquire from the English, are new proofs of the communication which these islanders formerly had with the Spaniards.* A century ago that

* It appears certain that these islands were discovered for the first time by Gaetan, in 1542. This navigator sailed from the port of Nativity on the western coast of Mexico, in 20° north latitude. He stood to the westward, and, after having run nine hundred leagues in that direction (and consequently without changing his latitude), he fell in with a group of islands, inhabited by savages almost naked. These islands were surrounded with coral rocks; they afforded cocoa nuts and other fruits, but neither gold nor silver. He named them Kings' Islands, probably from the day of making the discovery; and another island, which he discovered twenty leagues farther to the westward, he called Garden Island. It would have been impossible for geographers to have avoided placing the discoveries of Gaetan precisely where Cook has since found the Sandwich Islands, if the Spanish editor had not said, that these islands are situate between the 9th and the 11th degrees of latitude, instead of the 19th and

1786. May. nation had very strong reasons for not making known these islands, because the western seas of America were infested with pirates, who might have found supplies of provisions there; but who, on the contrary, from the difficulty of procuring them, were obliged to run to the west towards the Indian Ocean, or to return to the Atlantic Sea by Cape Horn. When the navigation of the Spaniards became reduced to a single galleon from Manilla, I suppose that this vessel, which was extremely rich, was ordered by the proprietors to keep a fixed course, which might diminish the risques. Whence it happened by

the 21st, as every navigator would have concluded from the course of Gaetan.

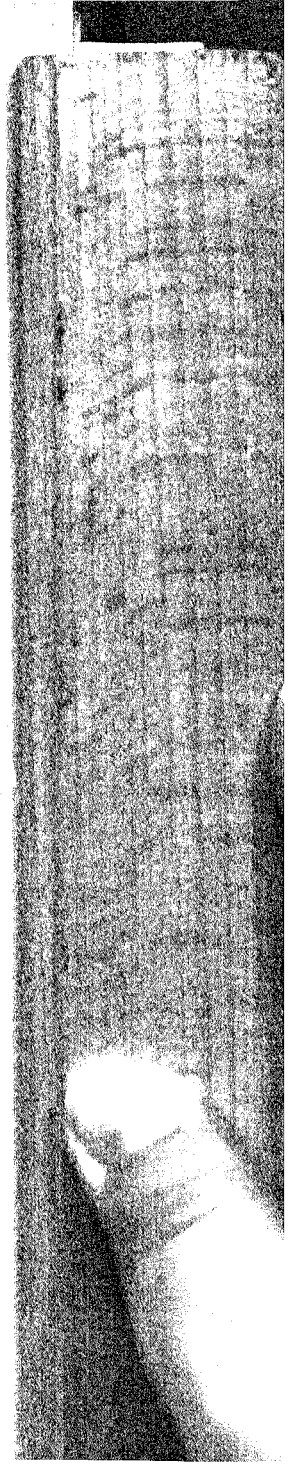
This omission of ten degrees may be either a mistake in the figures, or a political stroke of the Spanish court, which had a great interest a century ago to conceal the position of all the islands of this ocean.

I am inclined to think it an error of the press, because it would have been absurd to have related that Gaetan, taking his departure from the 20th degree of latitude, sailed due west. Beside, if any deception had been intended respecting the latitude, it would have been easy to have mentioned another course.

Be this however as it may, it is certain, that, by adding about ten degrees to the latitude of Gaetan, every thing is found to answer: the same distance from the coast of Mexico, the same people, the same productions and fruits, the same coasts bordered with coral rock, and lastly, the same extent from north to south: the Sandwich Islands lying nearly between the 19th and the 21st degree, as those of Gaetan between the 9th and 11th. This additional proof, joined to those already mentioned, appear to me to afford the highest degree of evidence to this discussion. I may also add, that there is no group of islands between the 9th and 11th degree; which is in the common track of the galleons from Acapulco to Manilla.

degrees, that this nation lost even the remembrance of these islands, which are preserved in the general chart to Cook's third Voyage, by lieutenant Roberts, with their ancient position, 15° to the eastward of the Sandwich Islands: but their identity with these last being in my opinion demonstrated, I have thought proper, by erasing them, to clear the surface of the sea. 1786. May.

It was so late before our sails were handed, that I was obliged to postpone going on shore at this place till the next day, where nothing could detain me but a convenient watering-place: but we had already observed, that this part of the coast was altogether destitute of running water, the slope of the mountains having directed the fall of all the rains towards the weather side. It is probable, that the labour of a few days might be sufficient to supply the whole island with so valuable a necessary of life; but these Indians are not yet arrived at the requisite degree of industry, though in many other respects so greatly advanced. From the narratives of the English we are well acquainted with the form of their government; and the extreme subordination which prevails among them is a proof that there is an acknowledged power, which extends gradually from the king to the lowest chief, and of which the whole weight bears upon the people. My imagination was delighted in comparing these with the inhabitants of Easter Island, whose industry is at least equally advanced. The monuments of the latter show even more intelligence



degrees, that this nation lost even the remembrance of these islands, which are preserved in the general chart to Cook's third Voyage, by lieutenant Roberts, with their ancient position, 15° to the eastward of the Sandwich Islands: but their identity with these last being in my opinion demonstrated, I have thought proper, by erasing them, to clear the surface of the sea. 1786. May.

It was so late before our sails were handed, that I was obliged to postpone going on shore at this place till the next day, where nothing could detain me but a convenient watering-place: but we had already observed, that this part of the coast was altogether destitute of running water, the slope of the mountains having directed the fall of all the rains towards the weather side. It is probable, that the labour of a few days might be sufficient to supply the whole island with so valuable a necessary of life; but these Indians are not yet arrived at the requisite degree of industry, though in many other respects so greatly advanced. From the narratives of the English we are well acquainted with the form of their government; and the extreme subordination which prevails among them is a proof that there is an acknowledged power, which extends gradually from the king to the lowest chief, and of which the whole weight bears upon the people. My imagination was delighted in comparing these with the inhabitants of Easter Island, whose industry is at least equally advanced. The monuments of the latter show even more intelligence

1786. May. and their cloths are better manufactured, and their houses better built; but their government is so vicious, that no person has a right to check irregularities. They acknowledge no authority: and though I do not think them absolutely depraved, it is but too common for their licentiousness to produce mischievous, and even fatal consequences. When I contrasted these two societies, all the advantages were in favour of the natives of the Sandwich Islands, though my prejudices were strong against them on account of the death of captain Cook. It is more natural for navigators to regret the loss of so great a man, than coolly to examine whether some imprudence on his part might not in a manner have compelled the inhabitants of Owhyhee to have recourse to a just and necessary defence.*

* It is but too certain, that the English commenced hostilities. This is a truth which it would be in vain to conceal. I need only seek for the proofs in the narrative of the friend of captain Cook, of the man who regarded him as his father, and whom the natives supposed to be his son; I mean captain King, who, after a faithful narrative of the events which led to his death, says, "this confidence I was always fearful might, at some unlucky moment, put him off his guard." Vol. III. page 55.

The reader may also judge for himself by comparing the following circumstances.

Cook imprudently gave orders to fire with ball, if the workmen were disturbed, though he had the incident before him of ten men belonging to captain Furneaux's crew, who were cut off by the New Zealanders, in consequence of their having fired two shot at certain individuals who had committed the trifling theft of some bread and fish.

Pareea, one of the chiefs, reclaiming his canoe, which had

The night was perfectly calm, with the exception of a few occasional squalls, which did not 1786. May.

been seized by Cook's people, was struck down by a violent blow on the head with an oar. When he recovered, he had the generosity to overlook this treatment, and returned a short time afterwards, bringing a hat which had been stolen, and appeared apprehensive lest captain Cook should put him to death, or at least punish him.

Before any other crime, except that of stealing the boat, had been committed, some great guns had been fired at two large canoes which were endeavouring to make their escape.

Nevertheless, after these events, Cook proceeded to the village where the king then was, and was received with the usual marks of respect, the people prostrating themselves before him.

There was no sign of any hostile intention on the part of the islanders, when the boats placed across the bay fired again at some canoes that were attempting to get out, and unfortunately killed a chief of the first rank.

This disaster enraged the natives. One of them offered defiance to captain Cook, and threatened to throw a stone at him which he held in his hand, which provoked captain Cook to fire a load of small shot, but the man having his war mat on, it produced no effect. This discharge of the musket was the signal of engagement. Phillips was instantly in danger of being stabbed. Cook then fired a second time with ball, and killed one of the foremost of the natives. The attack immediately became serious. The soldiers and seamen made a general discharge of musketry. Four marines were killed, and three others, with the lieutenant, dangerously wounded, when captain Cook, aware of his situation, repaired to the sea-side. He called to the boats to stop firing, and to pull in to receive him and his people. At this instant he was stabbed in the back, and fell on his face into the water.

It may likewise be added, that captain Cook, intending to convey the king and his family on board his ship, either by persuasion or force, and having for that purpose penetrated into the country, made too weak a preparation for such an attempt, by taking with him a detachment of only ten men. (French Editor.)

1786. May. last above ten minutes. At day-break the Astrolabe's long-boat was dispatched, with Messrs. de Vaujuas, Boutin, and Bernizet, who had orders to examine a very deep bay to the north-west, where I supposed the anchorage to be better than at the place where we were: but, though practicable, it proved not preferable to that which we occupied. According to the report of these officers, this part of the island of Mowee affording neither water nor wood, and having very bad roads, must be little frequented by navigators.

30. At eight in the morning four boats belonging to the two frigates were ready to set off. The two first carried twenty armed soldiers, commanded by M. de Pierrevert, one of the lieutenants. M. de Langle and myself, with all the gentlemen and officers who were not detained by their duty on board, were in the two others. This preparation did not alarm the natives, who since day-break had been alongside in their canoes. These Indians continued their traffic without being in the least disposed to follow us, and preserved the same air of confidence in us, which their countenances had never ceased to express. About a hundred and twenty persons, men and women, waited for us on the shore. The soldiers, with their officers, landed first. We marked the space we wished to reserve to ourselves; and the military, having fixed their bayonets, performed the same evolutions as if in the presence of an enemy. These formalities made no impression on the natives.—The women showed by the most expressive ges-

tures, that there was no mark of kindness which they were not disposed to confer upon us; and the men in the most respectful attitude endeavoured to discover the motive of our visit, in order to anticipate our desires. Two Indians, who appeared to have some authority over the others, advanced, and with great gravity made a speech of considerable length, of which I did not understand a single word; and each offered me a present of a hog, which I accepted. In return I gave them medals, hatchets, and other pieces of iron, which were of inestimable value to them. My liberality produced a striking effect. The women redoubled their caresses; but they were little seductive. Their features had no delicacy, and their dress permitted us to observe, in most of them, traces of the ravages occasioned by the venereal disease. As no women had come on board in the canoes, I was disposed to think, that they attributed to the Europeans those evils of which they bore the marks; but I soon perceived that this remembrance, supposing it real, had not left in their minds the smallest resentment. 1786. May.

I shall here take the liberty to examine, whether the modern navigators are the true authors of these evils, and whether this crime, with which they reproach themselves in their narratives, be not more apparent than real. To give to my conjectures the greater weight, I shall support them by the observations of M. Rollin, a very enlightened man, and surgeon of my ship. He

1786. May. visited in the island several inhabitants attacked by this disease, and observed appearances, the gradual developement of which would have required in Europe twelve or fifteen years. He likewise saw children of seven or eight years of age, in whom it prevailed, and who could only have contracted it during the period of gestation. I must farther observe, that captain Cook, on his first arrival at the Sandwich Islands, landed only at Atooi and Oneeheow; and that nine months after, on his return from the north, he found that the inhabitants of Mowee, who came on board, were almost all affected with it. As Mowee is sixty leagues to the windward of Atooi, this progress seems to me to be too rapid not to afford some doubts upon the subject.* If to these different observations be added such as may result from the ancient communication of these islanders with the Spaniards, it will doubtless appear probable, that they long since shared with other nations in the misfortunes attached to this scourge of humanity.

I have thought this discussion due to modern navigators. All Europe, misled by their own narratives, have continually reproached them for

* It appeared to captain Cook, that the inhabitants of Mowee had been informed of his anchoring at Atooi and Oneeheow. It would not therefore be strange, that the venereal disease should have been communicated in the same time as the news: beside, Bougainville is convinced that the inhabitants of the islands of the Pacific Ocean have intercourse with each other to very considerable distances. See his Voyage, p. 234. (French Editor.)

a crime, which the chiefs of this expedition supposed it out of their power to have prevented.— There is a reproach, however, which they cannot escape; namely, the not having taken sufficient precautions to avoid the evil; and if it be nearly demonstrated, that this disease is not the effect of their imprudence, it has not equally been shown, that their communication with this people did not give it greater activity, and render it's consequences much more dreadful.* 1786. May.

After having visited the village, I ordered six soldiers and a serjeant to attend us, and I left the others at the landing-place, under the command of M. de Pierrevert, to guard our boats, from which none of the sailors had come ashore.

Though the French were the first who, in modern times, had landed on the island of Mowee, I did not think it my duty to take possession in the name of the king. The customs of Europeans on such occasions are completely ridiculous. Philosophers must doubtless lament to see that men, for no better reason than because they are in possession of fire-arms and bayonets, should make no estimation of sixty thousand of their fellow creatures, and should

* It is not to be doubted that modern navigators deserve the reproach of having knowingly communicated the venereal disease to the islanders of the South-Sea. Captain Cook does not disguise the truth in his narratives. See his third Voyage, vol. i. p. 141 and 382, and vol. ii. p. 148. (French Editor.)

1786. May. consider as an object of conquest a land fertilised by the painful exertions of it's inhabitants, and for many ages the tomb of their ancestors.—These islands have fortunately been discovered at a period when religion no longer serves as a pretext for violence and rapine. Modern navigators have no other object in describing the manners of remote nations, than that of completing the history of man; and the knowledge they endeavour to diffuse has for it's sole aim to render the people they visit more happy, and to augment their means of subsistence.

It is in pursuance of these principles that they have already conveyed to remote islands black cattle, goats, and sheep; have planted trees, sown useful grain in all these countries, and supplied the inhabitants with tools proper to accelerate the progress of their industry. For our part, we should be amply repaid for the extreme fatigues of this expedition, if we could succeed in destroying the custom of human sacrifices, which is said to be generally prevalent among the islands of the South-Sea. But, notwithstanding the opinions of Mr. Anderson and captain Cook, I think with captain King, that a people so good, so mild, and so hospitable, cannot be cannibals. An atrocious religion does not easily accord with gentle manners; and, since captain King says, that the priests were their best friends, I think I may conclude, that if mildness and humanity have already made progress in this class, which has the charge of hu-

man sacrifices, the rest of the inhabitants must be still less ferocious. It seems evident, therefore, that anthropophagy no longer exists among these islanders, though it's cessation is probably of recent date.* 1786. May.

The soil of this island is entirely formed of decomposed lava, and other volcanic substances. The inhabitants have no other drink but a brackish water, obtained from shallow wells, which afford scarcely more than half a barrel a day. During our excursion we observed four small villages of about ten or twelve houses each, built and covered with straw in the same manner as those of our poorest peasants. The roof has a double slope; the door, which is in the gable end, is about three feet and a half high, and consequently cannot be entered without stooping, and is shut by a simple latch, which any one can open and obtain admittance.—Their moveables consists of mats, which, like our carpets, afford a clean and neat floor, upon which they sleep; and they have no other culinary utensils than large calabash shells, to which they give whatever form they please while they are green; and they varnish and trace upon

* The horror exhibited by the natives of these islands when suspected of being cannibals, and that which they testified when asked whether they had eaten the body of captain Cook, confirms in part the opinion of la Pérouse. Nevertheless Cook had himself acquired the most certain information of this practice among the New Zealanders, and it cannot be denied, that human sacrifices, and the practice of eating their enemies taken in war, are prevalent in all the islands of the South-Sea. (French Editor.)

1786. May. them every kind of design in black. I have likewise seen some which were glued together, and by that means formed very large vessels. It appears that this cement is capable of resisting moisture, and I should have been glad to have known it's composition. Their stuffs, of which they have a very great quantity, are made of the paper mulberry, like those of the other islands; but, though painted with greater variety, their fabrication appeared to be inferior. Upon my return I was again harangued by some women, who waited for us under some trees. They offered me several pieces of stuff, for which I paid with hatchets and nails.

The reader must not expect to find any detail in this place concerning a people with whom the world has been made so well acquainted by the English navigators, who remained four months in these islands, whereas our stay was only a few hours; and who had the further advantage of understanding the language of the country. We shall therefore confine ourselves to the relation of our own history.

We left the island at eleven in the morning, in good order, without confusion, and without having the least cause of complaint against any one. We arrived on board at noon, where M. de Clonard had been visited by a chief, and had purchased of him a cloak and a fine helmet, ornamented with red feathers. He had likewise bought upwards of an hundred hogs, with bananas, sweet potatoes, tarro, a large quantity of cloth,

mats, a canoe with an out-rigger, and various other small articles of feathers and shells. On our arrival the two frigates dragged their anchors. The wind was strong from the east-south-east, and we drove towards Morokinne, which was, however, sufficiently distant to permit us to hoist in our boats. I made the signal for weighing, but before the anchor was up I was obliged to set sail, and drag till we had passed the Morokinne Isle, that the current might not drive us beyond the channel. If the anchor had unfortunately struck in any cavity of a rock during this manœuvre, or if the ground had not been sufficiently uniform for it to slide along the bottom, I should have been obliged to cut the cable. 1786. May.

We did not completely get our anchor in till five in the evening, when it was too late to direct our course between the Isle of Ranai and the western point of Mowee; a new channel I was desirous of examining, but prudence did not admit of the attempt during the night. Till eight in the evening we had such light breezes, that we could not advance more than half a league. At length the wind fixed at the north-east, and I stood to the westward, passing at an equal distance from the north-west point of the island of Tahoorowa, and the south-west point of the island of Ranai. At day-break I made for the south-west point of the island of Morotoi, which I coasted at the distance of three quarters of a league, and came into the open sea, like the

1786. May. English, through the channel which separates the island of Wohaoo from that of Morotoi.—This last island had no appearance of being inhabited in this part, though, according to the English accounts, it is very populous on the other side. It is remarkable, that in these islands, the most fertile and healthy districts, and consequently the most populous, are always to the windward. Our islands of Guadaloupe, Martinico, &c. have so perfect a resemblance to this new cluster, that, as far as navigation is concerned, the circumstances appeared to me to be exactly the same.

Messrs. Dagelet and Bernizet have taken with the greatest care all the bearings of this part of Mowee along which we coasted, as well as those of Morokinne. It was impossible for the English, who never came nearer than ten leagues, to have given any exact information respecting these coasts. M. Bernizet has drawn a very good plan (*Charts and Plates*, N° 13 and 14), and M. Dagelet has joined astronomical observations, which deserve the same confidence as those of Cook, and which, for the conveniency of the reader, are all inserted in tables at the end of this work.—They show our course and precise situation from day to day, in latitude and longitude, by observation and by reckoning.

June. 1. On the first of June, at six in the evening, we were clear of all the islands. We had employed less than forty-eight hours in examining them, and at most only fifteen days to clear up a point

of geography, which appeared to me of the utmost importance, since it removes from the charts five or six islands which have no existence. The fishes which had followed us from the vicinity of Easter Island to our anchoring place there disappeared. It is a fact worthy of attention, that the same shoal of fishes had swam fifteen hundred leagues after our frigates. Several bonetas, wounded by our harping irons, carried on their backs a mark which it was impossible for us to mistake, and thus we knew again each day the same fishes we had seen the evening before. I have no doubt, if we had not stopped at the Sandwich Islands, they would have followed two or three hundred leagues farther, till they came to a temperature too cold for them to bear. 1786. June.

CHAPTER VII.

Departure from the Sandwich Islands—Signs of approaching the Coast of America—We make Mount St. Elias—Discovery of Baie de Monti—Boats sent to reconnoitre the Entrance of a large River, to which we preserve the Name of Behring's River—Discover a deep Bay—Favourable Report of several Officers, which induces us to put in there—Risks in entering—Description of the Bay, to which we give the Name of Baie or Port des Français—Manners and Customs of the Inhabitants—Traffic with them—Proceedings during our Stay.

1786. June. THE easterly winds held us till the latitude of 30° north; the weather was fine; and I steered a northerly course. The fresh provision we had procured during our short stay at the Sandwich Islands ensured the crews of both frigates a sufficiency of wholesome and acceptible food for three weeks; but it was impracticable for us to keep our hogs alive, for want of water and provender, so that I was obliged to salt them according to captain Cook's method. But the hogs were so small, the greater number weighing under twenty pounds a-piece, that they could not be exposed long to the action of the salt, without the meat being corroded, and partly destroyed, which obliged us to consume them the first.

On the 6th of June, being in the latitude of 30° north, the wind came round to the south-east, the sky appeared whitish and dull, and every thing indicated that we had passed the boundary of the trade winds. I greatly feared I should soon have to regret the fair weather, which had preserved our health, and enabled us almost every day to take observations of lunar distances, or at least compare the true time of the meridian at which we arrived with that of our time-keepers. 1786. June.

My apprehensions of mists were speedily realised: they began on the 9th of June, in the latitude of 34° north, and from that time the weather did not once clear up till the 14th, when we reached the latitude of 41°. I first thought these seas more foggy than those which separate Europe and America; but I should have been greatly mistaken, if I had irrevocably embraced this opinion. The fogs of Nova Scotia, Newfoundland, and Hudson's Bay, have an incontestable claim to pre-eminence from their constant density; but the dampness to which we were exposed was extreme; the mist or rain drenched all our clothes, we had not a single ray of sun to dry them, and my expedition to Hudson's Bay taught me by sad experience, that wetness, combined with cold, is probably the most effective cause of scurvy.* No one yet 9.

* Dr. Trotter, physician to the fleet under lord Howe, has shown in a very ingenious publication, on the health of seamen, that la Pérouse was not mistaken. T.

1786. June. exhibited any symptoms of it: but after so long a time spent at sea, the predisposition to it must be strong. Accordingly I ordered buckets full of embers to be placed under the half-deck, and between decks where the crew slept; I furnished every sailor and marine with a pair of boots; and the cloth breeches and waistcoats, which had been laid up in store ever since we had left the seas of Cape Horn, were returned to them.

My surgeon, who shared with M. Clonard the superintendence of all these particulars, proposed to me to mix with their morning's grog* a weak infusion of bark, which, without making any sensible alteration in the taste, might have very salutary effects. This mixture I was obliged to order to be made privately, otherwise the crews would certainly have refused to drink it: but as no one discovered it, no complaint was made of this innovation, which would probably have met with considerable opposition, if it had become a subject of general discussion.

These different precautions were attended with the utmost success; but they were not the whole that employed our leisure during such a long passage: my carpenter made a corn-mill, after a plan of M. de Langle's, which was of great service to us.

The superintendents of the victualling department, persuaded that kiln-dried corn would keep

* A liquor composed of one part brandy, and two parts water, much more wholesome for the crew than pure brandy.

better than flour or biscuit, had proposed to us to take on board a large quantity, to which we had made an addition at Chili. To grind it we were furnished with millstones twenty-four inches in diameter by four and a half thick, which were to be worked by four men. We were assured, that M. de Suffren had no other mill for the use of his squadron, of course we could not question their being sufficient for a crew so small as ours. But when we came to make use of them, the baker found the corn broken to pieces only, not ground; and of this bad meal, the labour of four men, relieved every half hour during a whole day, had produced only twenty-five pounds. As our corn formed nearly half our means of subsistence, we should have been under no small embarrassment, but for the inventive mind of M. de Langle, who, with the assistance of a sailor formerly a journeyman miller, contrived to adapt the movement of a windmill to our little stones. He first tried sails turned by the wind with some success; but to these he soon substituted a winch, and thus we were enabled to grind two hundred weight of corn a-day, and obtain from it as good meal as in the ordinary way. 1786. June.

On the 14th the wind came round to the west-south-west. The following observations are the result of our long experience. When the wind is but a few degrees to the north of the west, the sky is generally pretty clear, and the sun visible above the horizon; from the west to the south-west, commonly cloudy, with a little rain: from 14.

1786. June. the south-west to the south-east, and even as far as the east, a foggy horizon, and the air loaded with moisture, penetrating even into the cabins, and every part of the ship. Thus a simple inspection of the table of winds will always inform the reader of the state of the weather, and be of utility to those, who may follow us in this navigation: they, too, who may peruse with pleasure the events of our voyage, and at the same time feel interested for those, who have undergone the fatigue of them, will not think with indifference on navigators, who, at the verge of the earth, and having incessantly struggled against mists and storms, and scurvy, have explored an unknown coast, the theatre of all the geographical fictions,* too readily embraced by modern geographers. †

* The fictions I mean are the voyage of admiral Fuentes, and the pretended voyages of the Chinese and Japanese on these coasts.

† The particulars of the voyages of admiral Fuentes, or de Fonte, are unquestionably very extraordinary; but I dare not entirely reject them, when I compare the chart of his discoveries with those of Cook, la Pérouse, Dixon, and Meares. It appears from the oration delivered by Buache at the academy of Sciences, that Lorencio Ferrer de Maldonado discovered a north-west passage, by entering a strait in Hudson's Bay, the same by which admiral Fuentes passed out from the South-Sea, and which is named on maps Repulse Bay. The voyage of Maldonado appears to be authentic: it is dated 1588:‡ that of admiral Fuentes was in 1640. Now unless it were proved, that the latter was acquainted with the voyage of Maldonado, and made it the basis of

‡ Is it probable, that a Spanish vessel should be sent in search of a north-west passage, at the time when Philip was no doubt straining every nerve for the equipment of his famous armada. T.

Of this part of America, as far as Mount St. Elias, in the latitude of 60°, captain Cook had only a transient view, Nootka Sound excepted, where he made some stay: but from Mount St. Elias to the point of Alashka, and thence to Icy Cape, that celebrated navigator explored the coast with that courage and perseverance, of which all Europe knows him to have been capable. To explore that part of America, therefore, 1786. June.

his romance, the agreement between the particulars of the two voyages will leave room for doubt, and in geography every doubt ought to be preserved, till it is removed by irrefragable proofs.

Neither the oration of Buache, nor the Spanish voyage on which it was founded, is yet printed. The reader who wishes to know the disquisitions, to which the voyage of admiral Fuentes has given rise, will find them in the following works:

Explication de la Carte des nouvelles Découvertes au Nord de la Mer du Sud. "Explanation of the Chart of new Discoveries to the North of the Pacific Ocean," by de Lisle, &c. Paris, 1752.

Considérations geographiques et physiques, &c. "Geographical and physical Reflections on the new Discoveries to the North of the Great Ocean, commonly called the South Sea," by Philip Buache, &c. Paris, 1753.

Nouvelles Cartes des Découvertes de l'Amiral de Fonte, &c. "New Charts of the Discoveries of Admiral Fuentes, &c." by de Lisle, &c. Paris, 1753.

Lettre d'un Officier de la Marine Russienne à un Seigneur de la Cour, &c. "Letter from an Officer in the Russian Navy to a Nobleman at Court, &c." Berlin.

Observations critiques sur les nouvelles Découvertes de l'Amiral Fuentes, &c. "Critical Remarks on the new Discoveries of Admiral Fuentes, &c." by Robert de Vaugondy, jun. &c. Paris, 1753.

And the perodical publications entitled *Journal historique, Mémoire pour l'Histoire des Sciences et des Beaux Arts, Journal des Savans,* and *Journal économique,* for the year 1753. (French Editor.)

1786. June. which lies between Mount St. Elias and Monterey Bay, must be a work of high importance to commerce and navigation: but it would require some years, and we will not deny, that, having only two or three months to bestow on it, on account of the season, and still more of the vast plan of our voyage, we must leave much of the minutiæ to the navigators that may follow us.—Many ages in all probability will elapse, before all the bays and harbours of this part of America are perfectly known; but the true direction of the coast, and the determination of the latitude and longitude of it's most remarkable points, will secure to our labours a degree of utility, of which no mariner will be insensible.

From the time we left the Sandwich Islands till we made the land of Mount St. Elias, the wind had never ceased a moment to be favourable.—As we advanced to the north, and approached America, we observed sea-weeds of a species entirely new to us. A ball of the size of an orange terminated a stalk forty or fifty feet long, resembling an onion run to seed, but much superior in size. Large whales, ducks, and divers likewise indicated our approximation to
23. the land, which at length appeared on the 23d, at four in the morning. As the mist cleared away, a long chain of mountains covered with snow burst at once upon our sight, which we might have discerned thirty leagues farther off, had the weather been clear. We distinguished in these the Mount St. Elias of Behring, with it's

summit rising above the clouds. (*Charts and Plates*, 15, 16, 17, 18.) 1786. June.

The sight of land, after a long voyage, usually excites feelings of delight; but on us it had not this effect. The eye wandered with pain over masses of snow, covering a barren soil, unembellished by a single tree. The mountains appeared to be at a very little distance from the sea, which broke against the cliffs of a table-land three or four hundred yards high. This plain, black as if burned by fire, and totally destitute of verdure, formed a striking contrast with the whiteness of the snow, which was perceived piercing the clouds, and served as a base to a chain of mountains, which appeared to extend fifteen leagues east and west. At first we thought ourselves very near; the summits of the mountains seemed to hang over our heads, and the snow diffused a brightness calculated to deceive eyes unaccustomed to it: but as we advanced, we perceived between us and the elevated plain low lands covered with trees, which we took for islands. Among these it was probable we should find shelter for our ships, as well as wood and water. Accordingly I prepared to reconnoitre these supposed islands, by the help of the easterly wind, which blew along shore; but it suddenly shifted to the south, the sky became very gloomy in that part of the horizon, and I thought it adviseable to haul the wind, which set right on the shore, and wait for a more favourable opportunity. At noon we had an observation, which

1786. June. 25. 26. gave us the latitude of 59° 21′ north and our longitude by the time-keepers was 143° 23′ west. A thick fog enveloped the land during the whole of the 25th: but on the 26th the weather was very fine, and the coast appeared very distinct in all it's parts by two in the morning. I ran along it at the distance of two leagues, in seventy-five fathoms of water, muddy bottom, very desirous of finding a harbour, in which I had some reason to hope I was successful.

I have already mentioned a table-land three or four hundred yards high, serving as a base to vast mountains, a few leagues within it, and soon we perceived to the eastward a low point covered with trees, which appeared to join the table-land, and terminate at a short distance from a second chain of mountains which appeared farther to the east. We were all unanimously of opinion, that the table-land terminated at this low point covered with trees, and was an island separated from the mountains by an arm of the sea, the direction of which must be east and west like that of the coast, and in this supposed channel we expected to find a convenient shelter for our vessels.

Towards this point I steered my course, keeping the lead constantly going, and never found less than forty-five fathoms of water, with a muddy bottom. During the whole day the wind had been very weak, varying from west to north; and at two in the afternoon I was obliged to come to an anchor on account of a calm. At noon our

latitude by observation was 59° 41′, and our longitude by the time-keepers 143° 3′ west. We were three leagues to the south-west of the woody point, which I still believed to be an island. I had sent my barge, as early as ten in the morning, under the command of M. Boutin, to reconnoitre this channel or bay: Messrs. de Monti and de Vaujuas had been sent from the Astrolabe for the same purpose; and we remained at anchor waiting for their return. The sea was extremely smooth, and the current set south-south-west, at the rate of a knot and a half an hour, which confirmed me in my opinion, that the woody point formed at least the mouth of a large river, if not of a channel. 1786. June.

The barometer had fallen half an inch in the last twenty-four hours; the sky appeared very lowering; every thing indicated, that the dead calm which obliged us to come to an anchor, would be succeeded by foul weather. At length, at nine in the evening, our boats returned, and the three officers unanimously reported, that there was neither channel nor river; and that the coast merely formed a pretty large semicircular bay to the north-east, having thirty fathoms of water, with a muddy bottom, and entirely open to the winds from the south-south-west to the east-south-east, which are the most dangerous. The sea broke violently on the shore, which was covered with drift-wood. M. de Monti had landed with great difficulty; and, as he was the commanding-officer of this little division of boats,

1786. June. I gave the place the name of *Baie de Monti.*—They added, that the woody point joined other land still flatter, and without any trees, which gave it the appearance of being terminated by the sea, and thus occasioned our mistake.—Messrs. de Monti, de Vaujuas, and Boutin, had taken the bearings of the different points by the compass. Their unanimous report left us no doubt respecting the conduct we had to pursue. I made the signal to get under way; and as the weather threatened to prove very foul, I availed myself of a breeze which sprung up from the north-west, to run to the south-east and gain an offing.*

* It will no doubt appear strange, that I should dispute the report of three officers, and maintain, that la Pérouse formed a more accurate judgment of the coast from on board his own ship. It is for the reader to decide on the proofs of my assertion; and, if he have any doubts, he may consult the voyage of Dixon and the charts accompanying it.

I assert then, that de Monti Bay is the Port Mulgrave of Dixon, where he anchored on the 23d of May of the year following, sheltered from all winds by an island. which forms a kind of mole.

Dixon says, p. 40, "The situation Mr. Turner had pitched on for us to anchor in, was round a low point to the northward, about three miles up the bay.

"These islands, in common with the rest of the coast, are entirely covered with pines of two or three different species, intermixed here and there with hazle, and various kinds of brush-wood."

Dixon fixes the latitude of Port Mulgrave at - 59° 33′
And it's longitude, from the meridian of London, at 140, which makes, from the meridian of Paris, - - - - - 142 20

The night was calm, but foggy: the wind varied every moment, but at length it settled in the east, and blew very hard for four and twenty hours. 1786. June.

On the 28th the weather grew a little more clear. We had an observation in latitude 59° 19′ north, and longitude 142° 41′ west by our time-keepers. The coast was greatly obscured by mists, so that we could not distinguish the points we had seen the preceding days. The wind was still easterly; but the barometer rose, and every thing indicated a favourable change. At five in the evening we were only three leagues from the land, in forty fathoms of water, muddy bottom; and the mists being a little dispersed, we took bearings of the principal points of land, which formed a continued series with those of the preceding days, and served, with those made afterwards with the utmost care, for the construction of the charts accompanying this work. Navigators, and they who are particularly attached to the study of geography, will perhaps feel some satisfaction in being informed, that to give greater accuracy to the views and delineations of the coasts and remarkable points, M. Dagelet verified 28.

La Pérouse makes the latitude of Baie de Monti 59° 43′
And it's longitude - - - 142 40

If the three officers sent by la Pérouse did not proceed quite to the head of the bay, it is not at all surprising, that they thought they saw a continuation of the coast, and that the numerous small islands at the head of the bay concealed from them the passage, which separates these islands from the continent. (French Editor.)

1786. June. and corrected the bearings taken by the azimuth compass, by measuring with the sextant the angles the different head-lands made with each other, to ascertain the mutual distances, and at the same time determining the elevation of the mountains above the level of the sea. This method, though not rigorously exact, is accurate enough to enable seamen to judge of the distance of a coast by it's elevation; and thus this academician ascertained the height of Mount St. Elias to be one thousand nine hundred and eighty toises, and it's distance within land eight leagues.*

29. Our observation on the 29th of June gave us the latitude of 59° 20′ north, and our longitude, by our time-keepers, was 142° 2′ west, so that we had advanced eight leagues to the eastward in the last twenty-four hours. The southerly winds and fogs continued all the 29th, and the weather did not clear up till near noon on the 30th; but we had occasional glimpses of the low lands from which we were never more than four leagues distant. By our reckoning we were five or six leagues east of the bay to which captain Cook gave the name of Behring. Our soundings were never less than sixty or seventy fathoms, muddy bottom. At noon our latitude by observation was 58° 55′, and our longitude 141° 48′ by the time-keepers. There being a light wind from

* Cook says, that Mount St. Elias lies twelve leagues within land, in latitude 60° 27′, longitude 219° east from Greenwich. Third Voyage, Vol. III. (French Editor.)

the west-south-west, I stood towards the land with all sails set, and got sight of a bay to the eastward, which appeared to be very deep, and which at first I thought to be Behring's Bay. Approaching within a league and a half of it, I distinctly perceived that the low lands, as in Baie de Monti, joined higher land, and that there was no bay: but the sea was whitish and very little salt, so that we were evidently at the mouth of a river which was undoubtedly very large, as it changed the colour and taste of the sea two leagues in the offing. Accordingly I made the signal to come to an anchor in thirty fathoms, muddy bottom, and I dispatched my barge, under the command of M. de Clonard, my first lieutenant, accompanied by Messrs. Monneron and Bernizet. M. de Langle had sent his barge also, and his pinnace, with Messrs. Marchainville and Daigremont. These officers returned at noon. They had run along the shore as near as the breakers would allow, and had discovered a sand bank, just level with the water, at the mouth of a great river, which discharged it's waters into the sea by two pretty large channels; but each of these had a bar similar to that of the river of Bayonne, on which the sea broke with such violence, that it was impossible for our boats to get near. M. de Clonard spent five or six hours to no purpose in search of an entrance; but he saw smoke, a proof that the country is inhabited. From the ship we perceived the water very smooth beyond the bank, and a basin several leagues 1786. June.

1786. June. wide, and two leagues deep; so that when the sea is smooth it may be presumed ships, or at least boats, may enter the gulph: but as the current is very strong, and the roughness of the sea on the bars scarcely suffers a moment's intermission, a simple view of the place is sufficient to deter a seaman from entering it. On seeing this bay, I thought it might possibly be that where Behring landed: and if so, the loss of his boat's crew might with more probability be ascribed to the turbulence of the waves than to the savageness of the Indians.* To this stream I preserved the name of Behring's river; and it appears to me, that the bay of this name does not exist, captain Cook rather supposing than perceiving it, as he passed at ten or twelve leagues distance.†

July. 1. On the first of July, at noon, I weighed with a slight breeze from the south-west, running along

* Here there is a double mistake: first, it was captain Tschirikow, not captain Behring, who lost his boats; secondly, this misfortune happened in the latitude of 56°, as Muller relates in his Account of the Voyages and Discoveries of the Russians. See p. 248 of the French translation of his work. (French Editor.)

† The place which la Pérouse here calls Behring's river is unquestionably the same with the Behring's bay of Cook. It remains to be decided, whether the change of colour and freshness of the sea be sufficient to ascertain, that the inlet is a river; whether the freshness may not proceed from the quantity of enormous masses of ice continually falling from the summit of the mountains, and the colour, from the earth of the shore on which the sea breaks with so much fury.

Whether river or bay, perhaps indeed both (for bays being formed by mountains advancing into the sea, the probability is, that there is a river or torrent at the head), the following are proofs of the identity of the places.

the coast at the distance of two or three leagues. 1786.
Our observation at our anchorage gave us 59° 7′ July.
of north latitude; and our time-keeper, 141° 17′
of west longitude. The entrance of the river
then bore north 17° east, and Cape Fair-Weather,
east 5° south. A light breeze from the west
carried us along the shore near enough to have
discerned men with our glasses, if any had been
on it; but we saw only breakers, which appeared
to render landing impracticable.

On the 2d, at noon, I set Mount Fair-Weather, 2.
bearing north 6° east by the compass; our lati-
tude by observation being 58° 36′; our longitude
by the time-keepers, 140° 31′; and our distance
from land two leagues. At two in the afternoon

Cook determines the latitude of the mouth of the bay to be 59° 18′; la Pérouse, being to the west of it, makes it 59° 20′.

Cook's longitude, on board his ship, was 220° 19′ east of Greenwich, or 139° 41′ west; to which 2° 20′, the difference between the meridians of Greenwich and Paris, being added, we shall have Cook's longitude 142° 1′ west of Paris; and la Pérouse fixes his longitude at 142° 2′, which makes a difference of only one minute, with the addition of the two leagues, which Cook was farther from the coast.

Cook set the opening of the bay north 47° east: la Pérouse, who was two leagues nearer the shore, north 33° east.

Cook, at eight leagues from the land, had seventy fathoms of water, muddy bottom: la Pérouse, five or six leagues from the shore, had the same bottom, and consequently sixty or seventy fathoms of water.

If I had not carried my proofs to the point of conviction, I would entreat the reader himself to mark on the chart Cook's situation on the 6th of May, 1778; and that of la Pérouse on the 29th of June, 1786, and to follow their course pointed out in their journals, paying attention to the variation of the compass, as ascertained by the two navigators. (French Editor.)

1786. July. we perceived an inlet, a little to the eastward of Cape Fair-Weather, which appeared to be a very fine bay, and I steered my course towards it.—At the distance of a league I sent the jolly-boat, under the command of M. de Pierrevert, with M. Bernizet, to reconnoitre it. Two boats commanded by Messrs. de Flassan and Boutervilliers, were sent from the Astrolabe for the same purpose. From the vessel we perceived a large mole of rocks, behind which the sea was very smooth. This mole appeared to be six or eight hundred yards long from east to west, and ended about two cables' lengths from the point of the main land, leaving a pretty wide opening; so that nature seemed to have constructed in the remotest part of America a harbour resembling that of Toulon, but on a gigantic scale, adapted to her ampler powers. This new harbour extended three or four leagues into the land. Messrs. de Flassan and Boutervilliers made a highly favourable report of it: they had gone in and out of it several times; constantly found seven or eight fathoms of water in the middle of the passage, and five fathoms within forty yards, or thereabout, of either extremity; and added, that within the bay there were ten or twelve fathoms, with a good bottom. Their report determined me to steer for the passage. Our boats were sent a-head to sound, with orders, when we came near the points, to lie on their oars, one at each extremity, so that the ships would have nothing to do but pass between them.

We soon perceived some savages, who made signs of friendship, by displaying and waving white mantles, and different skins. Several of the canoes of these Indians were fishing in the bay, where the water was as smooth as in a basin, while the mole was covered with foam by the breakers; but the sea was very calm beyond the passage, a fresh proof to us that there was a considerable depth of water. 1786. July.

At seven in the evening we were off the entrance; but the wind was faint, and the ebb so strong, that it was impossible to stem it. The Astrolabe was drifted out pretty fast, and I was obliged to anchor, that I might not be carried away by the current, with the direction of which I was unacquainted. As soon, however, as I was certain that it ran directly to the offing, I weighed and rejoined the Astrolabe, far from determined what steps I should take the next day.—The very rapid current, of which our officers had made no mention, abated my eagerness to put into this harbour; for I was by no means ignorant of the great difficulties that always attend the entering or sailing out of narrow passages, where the tides are very strong; and as I was under the necessity of exploring the coasts of America during the summer season, I was sensible that a forced stay in a harbour, the departure from which required a combination of favourable circumstances, would be considerably detrimental to the success of my expedition. I stood off and on, however, the whole night; and in the morn-

1786. July. ing I hailed M. de Langle, and imparted to him my sentiments. Still the report of both his officers was very favourable; they had sounded the passage, and the interior of the bay; they declared, that they had several times stemmed the current, which appeared to us so strong, with their boat; so that M. de Langle thought this harbour would be extremely convenient for us; and his reasons appeared to me so good, that I hesitated not to yield to them.

This port was never seen by any navigator.—It is thirty-three leagues north-west of that of Los Remedios, the extreme boundary of the Spanish voyages; about two hundred and twenty-four leagues from Nootka: and a hundred leagues from Prince William's Sound: so that it appears to me, if the French government entertained any project of establishing a factory on this part of the coast of America, no nation could have the least pretext for opposing it.* The calmness of the interior of the bay was very seducing to us, who were under an absolute necessity of rummaging our hold, and almost entirely changing the stowage of it, in order to get out six of our guns, which were stowed in the

* Since la Pérouse explored the north-western coast of America from Mount St. Elias to Monterey, two English navigators have nearly followed the same track, but both with commercial views alone.

Dixon, who sailed from England in the Queen Charlotte, accompanied with captain Portlock in the King George, in September 1785, anchored at Owhyhee, one of the Sandwich islands, on

bottom, and without which it would have been imprudent to navigate the Chinese seas,* so frequently infested by pirates. I gave this place the name of *Port des Français*. 1786. July.

At six in the morning we stood for the passage, to enter it with the end of the flood. The Astrolabe led, and we stationed a boat at each point as the preceding evening. The winds blew from the west and west-south-west; the direction of the entrance is north and south; so that every thing appeared in our favour: but at seven o'clock, when we were in the passage, the wind chopped about to the west-north-west and north-

the 26th of May, 1786. La Pérouse passed by Owhyhee on the 28th of the same month, anchored at Mowee the next day, and sailed again the 30th. He made Mount St. Elias on the 23d of June, 1786; while Dixon, who left Owhyhee the 13th of June, having directed his course towards Cook's River, did not reach the north-western coast of America till the 8th of September. He ran along it from Cross Sound to Nootka Sound, without being able to come to an anchor any where. He left it on the 28th of the same month to return to the Sandwich Islands; and it was not till the 23d of May, in the year following, that he made Mount St. Elias, and anchored in Port Mulgrave. The priority of la Pérouse, therefore, is incontestable.

Before Dixon sailed from London, he was acquainted with the expedition fitted out from France, but he did not meet with the French vessels, and could have no knowledge of their discoveries.

Captain Meares, of the Snow Nootka, left Bengal in March, 1786; touched at Oonalashka in August: and at the end of September reached Prince William's Sound, where he wintered. It was not till 1788 and 1789 that he ran along the coast of America. His voyage is not yet translated into French. (French Editor.)

* We were to reach China by the beginning of February.

1786. July. west by west, so that it was necessary to throw the ship up in the wind and lay all aback. Fortunately the flood carried the ships into the bay, though it drove us within half a pistol-shot of the rocks on the eastern point. I came to an anchor within, in three fathoms and half, rocky ground, at half a cable's length from the shore. The Astrolabe anchored in the like depth of water, on a similar bottom.

During the thirty years that I have followed the sea I never saw two vessels so near being lost; and to have experienced such an event at the verge of the world would have enhanced our misfortune: but we had now escaped this danger. Our long-boats were quickly hoisted out, and with our kedge anchors we warped off, so that we were in six fathoms of water, before the tide had fallen perceptibly. Our keel touched the bottom a few times, it is true, but so slightly as to do the vessel no injury. Our situation would have been no longer embarrassing, had we not been anchored on a rocky ground, which extended several cables' length around us, very different from the report of Messrs. de Flassan and Boutervilliers. This was not a time, however, for reflections; it was necessary to extricate ourselves from this bad anchorage, and the rapidity of the tide was a great obstacle to this, the violence of it obliging me to let go a bower anchor. I momentarily apprehended, that the cable would be cut, and we should drive on shore. To add to our anxiety, the wind from

the west-north-west freshened greatly; the stern swung very near the rocks: and it was impossible to think of warping off. Accordingly I struck the top-gallant-masts, and awaited the end of the gale, from which we should have had nothing to fear, had we been anchored on a better ground. 1786. July.

Without delay I sent a boat to sound the bay. M. Boutin reported, that he had found an excellent bed of sand, within four cables' length of our anchorage to the west, where we should have ten fathoms of water; but higher up the bay, towards the north, there was no bottom at sixty fathoms, except within half a cable's length of the shore, where there were thirty fathoms, muddy bottom. He told me, likewise, that the north-west wind did not reach the interior of the harbour, where there was a perfect calm.

M. d'Escures had been dispatched at the same time to examine the head of the bay, of which he brought me a very favourable account. "He had made the circuit of an island, near which we might anchor in five-and-twenty fathoms, muddy bottom. No place could be more convenient for our observatory: wood ready cut lay scattered over the shore; and cascades of the clearest water fell from the summits of the mountains down to the sea. He had proceeded two leagues beyond the island to the head of the bay, which was covered with flakes of ice. He saw the entrance of two vast channels, but, being

1786. July. eager to return with an account of what he had done, had not explored them." From this report our imaginations pictured to us the possibility of penetrating into the interior of America by one of those channels. The wind having subsided at four in the afternoon, we warped to the bed of sand found by M. Boutin; and the Astrolabe was able to get under way, and gain the anchorage of the island. The next day I joined her, by the help of a light breeze at east-south-east, and the assistance of our boats.

During our forced stay at the entrance of the bay, we had been continually surrounded with the canoes of the savages, who offered us fish, skins of otters, and other animals, and different little articles of their dress, in exchange for our iron. To our great surprise they appeared well accustomed to traffic, and bargained with as much skill as any tradesman of Europe. Of all our articles of trade, they appeared to have no great desire for any thing but iron: they accepted indeed a few beads; but these served rather to conclude a bargain, than to form the basis of it. We at length prevailed on them to take pewter pots and plates: yet these had only a transient success, iron prevailing over every thing. They were not unacquainted with this metal. Every one had a dagger of it suspended from the neck, not unlike the criss of the Malays, except that the handle was different, being nothing more than an elongation of the blade.

rounded, and without any edge. This weapon had a sheath of tanned leather, and appeared to be their most valued moveable. As we examined these daggers very attentively, they informed us by signs, that they made use of them only against the bears and other wild beasts. Some were of copper, but they did not appear to give a preference to these. This metal is pretty common among them: they use it chiefly for collars, bracelets, and various other ornaments; and they also point their arrows with it. 1786. July.

It was a matter of great question with us whence they procured these two metals. There was no improbability in supposing this part of America to contain native copper, which the Indians might reduce into sheets or ingots: but native iron perhaps does not exist, or at least is so rare, that it has never been seen by the majority of mineralogists.* It cannot be admitted,

* Though native or virgin iron is rare, it is found in Sweden, Germany, Senegal, Siberia, and the Island of Elba. I have found it at Erbalonga, a village four or five miles north of Bastia, the capital of Corsica, profusely dispersed through the substance of a rock on the border of the sea, and constantly in an octaedral form. The existence of native iron is confirmed by the specimens extant in most cabinets of natural history, and by the opinion of Stahl, Linnæus, Margraff, and others.

Therefore, as iron mines exist in America, native iron also may be found there: not that I would hence infer, that the iron seen by la Pérouse in possession of these Indians came from this source; for I think with Cook, that they must have had it from the Russians, who, departing from Kamtschatka, have extended their commerce thus far; or by means of their intercourse with

1786. July. that these people are acquainted with the method of reducing iron ore to the state of metal.—Beside, the day of our arrival we saw necklaces of beads, and some little articles of brass, which, as is well known, is a composition of copper and zinc.* Every thing, therefore, leads us to presume, that the metals we saw came either from the Russians, from the servants of the Hudson's Bay company, from American merchants travelling into the interior parts of the country, or from the Spaniards: but I shall hereafter show that it most probably came from the Russians. We brought away many specimens of this iron, which is as soft and easy to cut as lead:† perhaps mineralogists may be able to point out the country and mine that produce it.

Gold is not an object of more eager desire in Europe, than iron in this part of America, which

the inland tribes, who procure it from our settlements on the north-east coast of America. (French Editor.)

* Copper fused with pure zinc makes pinchbeck or similor; it must be fused with calamine to obtain brass.

Calamine unquestionably contains zinc: but it also contains earth, sand, martial ochre, and often galena. That which has little or no zinc is unfit for making brass.

The semimetal zinc, when impure, may likewise be united with pyrites, lead, blende, and a very hard earthy substance.

Thus it appears, that very different metals will be obtained by fusing copper with pure zinc, and with calamine. French Editor.)

† This property indicates it to be native or virgin iron. (French Editor.)

is another proof of it's scarcity. Every man, it is true, has a little in his possession; but they are so covetous of it, that they leave no means untried to obtain it. On the day of our arrival, we were visited by the chief of the principal village. Before he came on board, he appeared to address a prayer to the sun. He then made a long harangue, which was concluded by a kind of song, by no means disagreeable, and greatly resembling the plain chant of our churches. The Indians in his canoe accompanied him, repeating the same air in chorus. After this ceremony, they almost all came on board, and danced for an hour to the music of their own voices, in which they are very exact. I gave the chief several presents, which made him so very troublesome, that he daily spent five or six hours on board; and I was obliged to repeat them very frequently, or he would go away discontented, and with an air of threat, which however was not very formidable. 1786. July.

As soon as we had taken our station behind the island, almost all the savages of the bay repaired thither. The report of our arrival soon spread through the environs; and several canoes arrived laden with a considerable quantity of otter skins, which the Indians bartered for hatchets, adzes, and bar iron. At first they gave us salmon in exchange for pieces of old hoops; but they soon became more difficult, and would not part with this fish unless for nails, or small implements of iron. I believe the sea-otter

1786. July. is no where more common than in this part of America; and I should not be surprised, if a factory, extending it's trade only forty or fifty leagues along the coast, were to collect annually ten thousand skins. M. Rollin, the surgeon of my ship, skinned, dissected, and stuffed the only otter we were able to procure: but unfortunately it was not above four or five months old, and weighed only eight pounds and half.—The Astrolabe caught one, which had no doubt escaped from the savages, as it was severely wounded. It appeared to be at the full growth, and weighed at least seventy pounds. M. de Langle had it flayed to be stuffed; but as it was at the time of our critical situation on entering the bay, it was not executed with care, and we could preserve neither the head nor the jaw.

The sea-otter is an amphibious animal, better known for the beauty of it's skin, than by any accurate description. The Indians of Port des Français call it *skecter*; the Russians give it the name of *colry-morsky*,* and distinguish the female by the name of *maska*. Some naturalists speak of it under the name of *saricovienne*; but the description given of the *saricovienne* by M. de Buffon is no way suitable to the sea-otter, which resembles neither the otter of Canada, nor that of Europe.

* According to Coxe, *bobry morsky*, or sea-beaver: the female, *matka*; the young ones under five months, *medviedki*; &c. (French Editor.)

As soon as we arrived at our second anchorage, we erected our observatory on the island, which was not above a musket-shot from our ships, and formed an establishment there for the time of our stay in port. We pitched tents for our sail-makers and smiths, and made a store for our water-casks, which we completely refitted. As all the Indian villages were on the main-land, we flattered ourselves, that we should be in security on the island, but we were soon convinced of our mistake. Experience had already taught us, that the Indians were great thieves; but we did not suspect them of sufficient activity and perseverance, to carry into execution difficult and tedious schemes. In a short time we learned to know them better. They spent the night in watching for favourable opportunities to rob us: but we kept a strict watch on board our vessels, and they were seldom able to get the better of our vigilance. I had established also the Spartan law: the person robbed was punished; and if the thief received no applause, at least we reclaimed nothing, to avoid all occasion of quarrel, which might have led to fatal consequences. That this extreme wildness rendered them insolent I will not disavow: but I endeavoured to convince them of the superiority of our arms; for which purpose I fired a cannon, to show them, that I could reach them at a distance, and pierced with a musket-ball, in presence of a great number of Indians, several doubles of a cuirass they had sold us, after 1786. July.

1786. July. they had informed us by signs that it was impenetrable to arrows or poignards. Our fowlers, too, who were good marksmen, killed birds over their heads. I am well assured, that they never thought of inspiring us with fear; but their conduct convinced me, that they believed our forbearance inexhaustible. In a very little time they obliged me to remove the establishment on the island. They landed upon it in the night, on the side next the offing; crossed a very thick wood, which it was impossible for us to penetrate in the day; and creeping on their bellies like snakes, almost without stirring a leaf, they contrived to steal some of our effects, in spite of our sentries. They had even the address to enter by night into the tent where Messrs. de Lauriston and Darbaud, who were on guard at the observatory, slept; and took away a silver-mounted musket, and the clothes of the two officers, which they had taken the precaution to place under their pillow, without being perceived by a guard of twelve men, or even awaking the officers. This theft would have given us little uneasiness, but for the loss of the original paper, containing all our astronomical observations since our arrival at Port des Français.

These circumstances were no impediment to our taking in wood and water. All our officers were continually on duty with the boats, at the head of the different working parties, which we were obliged to send ashore. Their presence,

and the order they maintained were checks upon the savages. 1786. July.

While we were making speedy preparations for our departure, Messrs. de Monneron and Bernizet went in a boat well armed, to take the plan of the bay. I could not send with them any naval officers, because they were all employed; but I had resolved, that the latter should verify the bearings of all the points, and lay down the soundings, before our departure. We intended afterwards to bestow one whole day in hunting bears, of which we had seen traces in the mountains, and then to depart as soon as possible, the advance of the season not allowing us longer delay.

We had already visited the head of the bay, which is perhaps the most extraordinary place in the world. To form an idea of it, it is necessary to conceive a basin of water, unfathomable in the middle, bordered by peaked mountains, of great height, covered with snow, and without one blade of grass to decorate this vast heap of rocks, condemned by nature to eternal sterility. I never beheld the surface of the water ruffled by a single breath of wind. Nothing disturbs it but the fall of enormous masses of ice, which frequently separate from five different glaciers, while the sound is re-echoed by the distant mountains. The air is so calm, and the silence so profound, that the single voice of a man may be heard half a league, as may the cries of a few sea-fowl, which deposit their eggs in the hollows

1786. July. of the rocks. It was at the head of this bay, that we hoped to find channels, by which we might penetrate into the interior of America. We conjectured it might lead to some large river, taking it's course between two of the mountains, and originating from one of the great lakes north of Canada. Such was our chimerical notion, and this was it's result. We set off in the two barges of the Boussole and Astrolabe. Messrs. de Monti, de Marchainville, de Boutervilliers, and father Receveur, accompanied M. de Langle; and Messrs. Dagelet, Boutin, Saint-Ceran, Duché, and Prevost, were with me. We entered the channel on the west. Prudence required us to keep at a distance from the shore, on account of the falling ice and stones. At length, after having rowed a league and half only, we found the channel terminated at two vast glaciers.—We were obliged to push away the flakes of ice with which the sea was covered, to penetrate thus far: and the water was so deep, that I could find no bottom at half a cable's length from the shore with a line of a hundred and twenty fathoms. Messrs. de Langle, de Monti, and Dagelet, with several other officers, attempted to ascend the glacier. With unspeakable fatigue they advanced two leagues, being obliged at extreme risk to leap over clefts of great depth; but they could only perceive one continued mass of ice and snow, of which the summit of Mount Fair-Weather must have been the termination.

While they were on this expedition, my boat remained on the shore. A fragment of ice which fell into the water near half a mile off, occasioned such a swell along the shore, that my boat was upset, and thrown to some distance on the border of the glacier. This accident was soon repaired, and we returned on board, having finished our voyage into the interior of America in a few hours. I had sent M. de Monneron and M. Bernizet to explore the eastern channel; which terminated, like this, at two glaciers. Both these channels were surveyed, and laid down in the plan of the bay. (*Charts and Plates*, N° 19.) 1786. July.

CHAPTER VIII.

Continuation of our Stay at Port des Français—At the Moment of our Departure we experience a dreadful Misfortune—Concise Account of the Particulars of this Event—We return to our first Anchorage—Departure.

1786. July. THE day after this excursion, the chief came on board better attended, and more ornamented, than usual. After many songs and dances, he offered to sell me the island, on which our observatory was erected; tacitly reserving, no doubt, to himself and the other Indians, the right of robbing us upon it. It was more than questionable, whether this chief were proprietor of a single foot of land: the government of these people is of such a nature, that the country must belong to the whole society: yet, as many of the savages were witnesses to the bargain, I had a right to suppose that it was sanctioned by their assent; and accordingly I accepted the offer of the chief, sufficiently aware, however, that many tribunals would find a flaw in the contract, if ever the nation should think proper to litigate our title, for we could bring no proof, that the witnesses were it's representatives, or the chief the actual proprietor of the soil. Be this as it

might, I gave him several yards of red cloth, hatchets, adzes, bar iron, and nails, and made presents to all his attendants. The bargain being thus concluded, and the purchase-money paid, I sent to take possession of the island with the usual formalities, and buried at the foot of a rock several bronze medals, which had been struck before our departure from France, with a bottle containing an inscription recording our claim. 1786. July.

The grand work, however, for which he had put into port was accomplished. Our guns were mounted, our hold was restowed, and we had taken on board as ample a stock of wood and water as at our departure from Chili. Not a port in the universe could afford more conveniencies for accelerating a business often tedious in other countries. Cascades, as I have already said, falling from the summits of the mountains, poured the most limpid water into the casks as they stood in the long-boat: wood ready felled, lay scattered over a shore, skirted by a sea perfectly smooth. The plan of Messrs. Monneron and Bernizet was finished, as well as the measure of a base taken by M. Blondelas, which had served M. de Langle, M. Dagelet, and most of the officers, to measure the height of the mountains trigonometrically. We had only to regret the loss of M. Dagelet's paper of observations, and this misfortune was rendered trifling by the different memorandums which had been found. In short, we considered ourselves as the most fortu-

1786. July. nate of navigators, in having arrived at such a distance from Europe without having had a single person sick, and without an individual of either crew being attacked with the scurvy.

But here the greatest of misfortunes, and most impossible to be foreseen, awaited us. It is with the most pungent sorrow I proceed to give the history of a disaster a thousand times more cruel than disease, and all the other events incident to long voyages. But I submit to the severe duty I have imposed upon myself of writing this account; and I am not ashamed to avow, that my sorrow for the event has a hundred times since moistened my cheeks with tears; that time has not effaced my grief; and that every object, every moment, recalls to my remembrance our loss, at a time when we had so little reason to apprehend such a disaster.

I have already observed, that the soundings were to be placed on Messrs. de Monneron and Bernizet's plan by some of the naval officers. In consequence the Astrolabe's pinnace, under the command of M. de Marchainville, was ordered for the next day, and I directed mine to be ready, as well as the jolly-boat, the command of which I gave to M. Boutin. M. d'Escures, my first lieutenant, a knight of St. Lewis, went in the Boussole's pinnace, and had the command of the expedition. As his zeal had appeared sometimes a little too ardent, I thought proper to give him instructions in writing. The particulars into which I entered respecting the prudence I re-

quired appeared to him so minute, that he asked me whether I took him for a child, adding, that he had had the command of vessels before now. I explained to him the motives of my orders in a friendly manner: I told him, that M. de Langle and I had sounded the passage of the bay two days before, and that I found the officer commanding the other boat with us had passed too near the point, and even touched upon it: I added, that young officers thought it a feather in their cap, to mount the parapets of the trenches during a siege, and the same spirit led them in boats to brave rocks and breakers; but such inconsiderate boldness might be attended with the most fatal consequences in an expedition like ours, where such dangers were continually recurring. After this conversation I delivered to him the following instructions, which I read to M. Boutin, and which will best explain the mission of M. d'Escures, as well as the precautions I took. 1786. July.

Written Instructions given to M. d'Escures by M. de la Pérouse.

"Before I enter on the purpose of the expedition on which M. d'Escures is sent, I must inform him, that he is expressly ordered, not to expose the boats to any danger, and not to approach the passage if there be any breakers. He will set off at six in the morning, with two other boats commanded by Messrs. de Marchainville and Boutin,

1786. July. and he will sound the bay from the passage to the little cove to the eastward of the two paps. He will lay down the soundings on the plan I have delivered to him, or he will sketch one from which they may be laid down. If there be no breakers in the passage, but merely a swell, as the business is not urgent, he will defer sounding it till some other day, recollecting, that nothing of this kind can be done well, unless it be done with ease.—It is probable, that the best time for approaching the passage will be at still water, about half after eight. If circumstances should then be favourable, he will endeavour to measure it's width with a logline, and will place the three boats parallel to each other, sounding in the direction of the width, or from east to west. He will then sound from north to south: but it is scarcely probable that he can take this second sounding the same tide, as the current will have grown too strong.

"While waiting for the time of still water, or if the sea should prove rough, M. d'Escures will sound the interior of the bay, particularly the cove behind the paps, where I am inclined to think there must be very good anchorage. He will also endeavour to fix on the plan the limits of the rocky ground, and of the sand, that the good ground may be known. I conceive that when the channel on the south of the island is open with the point of the paps, there is a good sandy bottom: M. d'Escures will examine whether my opinion be well founded; but I again repeat, that I must beg him not to deviate from the strictest prudence."

After instructions like these, could I entertain any apprehension? They were given to a man of thirty-three, who had commanded ships of war: how many reasons therefore had I for security! 1786. July.

Our boats set off according to my directions at six in the morning. It was as much a party of pleasure, as of utility and information. The gentlemen were to shoot, and breakfast under the trees. With M. d'Escures, I sent M. de Pierrevert, and M. de Montarnal, the only relation I had in the navy, and for whom I bore as much affection, as if he had been my son. Never had a young officer given me greater hopes, and M. de Pierrevert had already acquired what I speedily expected from M. de Montarnal.

The seven best marines on board composed the boat's crew, and my chief pilot accompanied them to heave the lead. M. Boutin had under him in the jolly-boat M. Mouton, lieutenant of a frigate. I knew that the Astrolabe's boat was commanded by M. de Marchainville, but I was not informed whether there were any other officers in it.

At ten in the morning I saw our jolly-boat returning. A little surprised, as I did not expect it so soon, I asked M. Boutin, before he got on board, if any thing had happened; apprehending at the moment some attack from the savages. The appearance of M. Boutin was by no means calculated to allay my fears. His countenance displayed the most lively sorrow. He quickly informed me of the dreadful loss he had witness-

1786. July. ed; and in which he must himself have been involved, had not his firmness of mind enabled him to perceive the resources that were left in such extreme peril. Drawn, by following his commanding officer, into the midst of the breakers, which set into the passage, while the sea ran out at the rate of ten or twelve knots an hour, it occurred to him, to present the stern of the boat to the surge, so that yielding to the wave it might not fill, while it would be drifted out stern foremost by the tide. He soon perceived that he had left the breakers a-head, and found himself in the open sea. More intent on the safety of others than of himself, he rowed along the edge of the breakers, in hopes of saving some of his unfortunate comrades, and he even returned into them again, but was driven back by the tide. At length he got upon the shoulders of M. de Mouton, that he might command a more extensive view: but in vain, all was swallowed up—— and M. Boutin re-entered the bay at still water. The sea having become smooth, he had entertained some hope of the Astrolabe's pinnace, as he had only seen ours go down. M. de Marchainville was at that time a full quarter of a league from the place of danger, being in as smooth water as in the closest harbour: but this young officer, prompted by a generosity, imprudent no doubt, as, under such circumstances any assistance was impossible, and possessing too much courage and magnanimity to make this reflection when his friends were in such extreme,

danger, flew to their assistance, rushed into the same breakers, and perished with his commander, the victim of his generosity, and of the peremptory disobedience of that officer's orders. 1786. July.

M. de Langle soon came on board my ship, not less overwhelmed with grief than myself, and informed me with tears, that the misfortune was far greater than I had supposed. Since our departure from France he had made it an inviolable law to himself, never to send the two brothers, Messrs. la Borde Marchainville and la Borde Boutervilliers, on the same party; and on this occasion he had yielded for the first time to their wish to take a walk and shoot together, as indeed we both considered this expedition as little more than a party of pleasure, in which the boats would be no more exposed to danger than in Brest Road in fine weather.

Some canoes of the savages came now to inform us of the fatal accident. These rude unpolished men expressed by signs, that they had seen both our boats sink, and that to render them assistance was utterly impossible. We loaded them with presents; and endeavoured to make them understand, that all our wealth would not have been too ample a compensation for him who had saved a single man.

Nothing could be more powerful in awakening their humanity. They hastened to the sea-shore, and spread themselves over both sides of the bay. I had already sent M. de Clonard with the long-boat to the eastward, where, if any individual had

1786. July. been so fortunate as, contrary to all probability, to save himself, it was likely he would land. M. de Langle went to the west, that no place might remain unvisited; and I remained on board to take care of the two vessels, with a sufficient number of men to have nothing to fear from the savages, against whom prudence required us to be constantly on our guard. Almost all the officers, and several other persons, accompanied Messrs. de Langle and Clonard. They proceeded three leagues along the sea-shore, but they saw not the least fragment of the wreck. Still I had retained a gleam of hope. The mind does not easily pass at once from a state of satisfaction to profound grief. But the return of our boats dissipated the illusion, and reduced me to a state of sorrow, which words can but feebly express. I will here give the narrative of M. Boutin, who was the friend of M. d'Escures, and forgot like me, this officer's imprudence.

Narrative of M. Boutin.

"On the 13th of July, ten minutes before six in the morning, I set off from the Boussole in the jolly-boat, with orders to attend M. d'Escures, who had the command of our pinnace; and M. de Marchainville was to join us with the pinnace of the Astrolabe. The instructions given to M. d'Escures in writing, by M. de la Pérouse, which had been read to me, directed him to employ

the three boats in sounding the bay; to place 1786.
the soundings, according to the bearings, on the July
plan given him; and to sound the passage, if the water were smooth, and measure it's width: but he was expressly charged, not to expose the boats under his command to the least danger, and not to approach the passage, if there were the least appearance of breakers, or even swell. When we had doubled the western point of the island, near which we were anchored, I perceived the passage covered with breakers from one side to the other, and that it was impossible for us to approach it. M. d'Escures was then a-head, lying on his oars, apparently waiting for me; but when I was within musket-shot of him, he rowed on; this he several times repeated; but his boat rowing faster than mine, I found myself unable to join him. At a quarter after seven, having constantly steered for the passage, we were within two cables' length of it, when the pinnace put about, and I followed in her wake. We were then standing towards the bay, leaving the passage astern of us. Our pinnace was a-head of my boat within hail, and that of the Astrolabe a quarter of a league off within the bay. M. d'Escures then hailed me gaily: 'I believe we can do nothing better than go to breakfast, for the sea breaks terribly in the passage.' I answered: 'I think so too; and I fancy we must content ourselves with fixing the limits of the sandy bay on the larboard of the entrance.' M. de Pierrevert, who was with

1786. July. M. d'Escures, was going to reply to me, but his eyes being turned towards the east, he saw that we were drifting by the ebb. I too perceived it, and we instantly pulled away with all our might to the north, to get at a distance from the passage, from which we were still at least two hundred yards. I was not apprehensive of the least danger, since, if we could get only forty yards either to the starboard or larboard side, we should at any time have it in our power to run the boats ashore. After having exerted ourselves at our oars for more than a minute, without being able to stem the tide, I endeavoured in vain to gain the east side; and our pinnace, which was a-head, as vainly attempted to gain the west. We were obliged therefore to lay our heads to the north, that we might not fall broadside to the breakers. The beginning of the surge now appeared at a very little distance from my boat. I thought it advisable, therefore, to let go the grapnel, but it would not hold: fortunately it was not made fast to the thwart, and so ran clear out, thus freeing us from a weight which might have been fatal to us. In an instant I was in the midst of the heaviest waves, which almost filled the boat; yet she did not go down, and still answered the helm, so that I was able to keep her stern to the surge, which gave me great hope of escaping the danger.

"While I was letting go the grapnel, the pinnace increased her distance from me, and did not get into the breakers till some minutes after me.

I had lost sight of her when the sea first broke into my boat: but at one of those moments when I was at the top of a wave, I saw her on her broadside sixty or eighty yards a-head, but could perceive neither men nor oars. My sole hope had rested on her stemming the current; for I was too certain that she would be lost if she were carried away by it; since, to escape, required a boat that would swim when full of water, and answer her helm in that situation, to prevent her from oversetting, qualities of which neither, unfortunately, was possessed by our pinnace. 1786. July.

"I was still in the midst of the breakers, looking round me on all sides; and I perceived, that astern of the boat the waves formed a chain extending to the south as far as I could see.—They extended also a considerable way to the west. But I discovered, that, if I could get a hundred yards to the eastward, I should be in a much less dangerous sea. Accordingly I exerted every effort to accomplish this, by pulling to the starboard in the intervals between the seas; and by five-and-twenty minutes after seven I was out of danger, having to contend with nothing but a heavy swell, and some short waves occasioned by the west-north-west breeze.

"After having baled the boat, I thought of assisting my unfortunate comrades; but my hopes were at an end.

"From the moment I saw our pinnace going down among the breakers, I had pulled by intervals towards the east, but was some minutes

1786. July. before I could extricate myself from them. It was impossible, that persons wrecked in the midst of such a rapid current should get out of it's course, at the mercy of which they must drive the remainder of the tide, which continued to set out of the bay till a quarter before nine: beside, could the most experienced swimmer resist the violence of such waves even for a few moments? Still, as I could make search no where, with any show of reason, except in the direction of the current, I laid the boat's head to the southward, and rowed along the edge of the breakers, which were on my starboard hand, changing my course every moment after objects I perceived floating, which from time to time gave me hopes, but which, on my approach, proved to be nothing but seals or sea-weeds.

"As there was a heavy swell, when I was on the top of a wave my horizon was pretty extensive, so that I could have perceived an oar, or a piece of wreck, four or five hundred yards distant.

"My eyes were soon turned towards the eastern point of the entrance, on which I perceived some men making signals by waving their cloaks. These, I afterwards found, were savages: but at the time I supposed them to be the crew of the Astrolabe's pinnace, waiting for the slack water to come to our assistance. I was far from thinking, that my unfortunate friends had fallen victims to their generous boldness.

"At three quarters after eight o'clock,* the tide being turned, there were no breakers, only a heavy swell. I thought it incumbent on me to continue my search in this swell, following the direction of the ebb, which had ceased; but I was as unsuccessful in this search as in the former. At nine o'clock, perceiving the flood tide set in from the south-west; having neither provision, sail, nor grapnel; my boat's crew wet and chilled; apprehensive that I should not be able to re-enter the bay when the flood had acquired all it's force; finding too, that it already flowed strongly to the north-east, which prevented my getting to the south, where my search should have been continued; I returned to the bay, steering to the north. 1786. July.

"Already the passage was nearly shut in by the eastern point. The sea still broke on each of the points; but it was smooth in the middle. At length I gained the entrance, keeping near the larboard point, on which were the Americans who made the signals, and whom I had taken for Frenchmen. They made signs, that they had seen two boats overset: and, as I could not perceive the Astrolabe's pinnace, I was but too certain of the fate of M. de Marchainville, whom I knew too well to suppose he would reflect on the inutility of the danger to which he must be

* Half after eight was the hour I had mentioned in my instructions for approaching the passage without danger, as the current, at all events, would have been setting inward—and by a quarter after seven the boats were lost!

1786. July. exposed. Still, however, as we are prone to flatter ourselves, I retained some slight hope, that I should find him on board our ships, whither it was possible he might have gone for assistance: accordingly my first words, when I got alongside, were: 'Do you know any thing of M. d'Marchainville?' and the answer, 'No,' convinced me of his loss.

"After these particulars, I conceive I ought to explain the motives of the conduct of M. d'Escures. It is impossible he could ever have thought of entering the passage. His design was merely to approach it; and he imagined he kept himself at a distance more than sufficient to be out of all danger. But in this distance he was deceived, as well as myself, and all the eighteen persons in both the boats. It is not for me to say how far this mistake was pardonable, or why it was impossible to judge of the strength of the current, as I should be thought to be offering my own excuse; for I repeat it, I conceive the distance more than sufficient, and even the sight of the coast, which appeared flying to the north with extreme velocity, only excited my astonishment. Without attempting to particularise all the reasons which contributed to inspire us with so fatal a confidence, I cannot avoid remarking, that, on the day of our entrance into the bay, our boats were above two hours sounding the passage, in every direction, without finding any current. It is true, that, when our ships attempted to enter

it, they were driven back by the ebb: but the wind was so faint, that our boats, at the very same time, stemmed the tide with the utmost ease. Lastly, on the 11th of June, when the moon was at the full, our two captains themselves, accompanied by several officers, had sounded the passage, went out with the ebb, returned with the flood, and perceived nothing that could lead them to suspect the least danger,* particularly with boats well manned. Hence it must be inferred, that the violence of the current must have been owing to some particular cause, as an extraordinary melting of snow,† or strong gales of wind, which had not reached into the bay, but unquestionably blew with violence in the offing. 1786. July.

"M. de Marchainville was a quarter of a league from the passage within the bay, when I was draw into it. From that time I saw nothing of him: but all who were acquainted with him must know how his noble and generous character would prompt him to act. It is probable that when he perceived our two boats in the midst of the breakers, unable to comprehend how we could have been drawn into it, he must have supposed a grapnel rope had snapped, or we had lost our oars, and immediately rowed to the

* Is this consistent with the strictness of the instructions given by M. de la Pérouse to M. d'Escures? T.

† This could not have increased the strength of the flood, which is said above to have set in very strong. T.

1786. July. breakers to assist us. Seeing us struggling in the midst of the waves, he would have listened only to the dictates of his natural courage, and come to our succour, at the hazard of perishing with us. Assuredly a glorious death: but how painful to him, who, having escaped the danger, can never hope to behold again his companions, or the heroes who came to save him!

"I cannot designedly have omitted any essential fact, or misrepresented those I have related: M. Mouton, who was with me, is here to correct me, if my memory have made any mistake. His firmness, with that of the cock-swain and four rowers, contributed not a little to save us. My orders were executed in the midst of the breakers with as much precision, as in the most ordinary circumstances. Signed, BOUTIN." *(Charts and Plates,* N° 25.)

Nothing remained for us but to quit with speed a country that had proved so fatal. But we still owed a few days to the families of our unhappy friends: too hasty a departure would have left doubt and anxiety in the minds of people in Europe, who would not have considered, that the current extends only a league without the passage; that neither the boats, nor the people cast away in them, could have been driven farther; and that the fury of the waves in that place left no hope of their return. If, contrary to all probability, any one had been able to return, as it must be in the vicinity of the bay, I

resolved to wait some days: but I quitted the anchorage of the island, and took that of the bed of sand, on the west side of the entrance. The moving from one place to the other, though only a league distant, occupied me five days, during which we had a heavy gale of wind from the east, that would have endangered us greatly, had we not been anchored on a good bottom of mud. It was fortunate our anchors did not drive, for we were less than a cable's length from the shore. The contrary winds detained us longer than I intended, so that we could not sail till the 30th of July, eighteen days after the event which it has given me so much pain to relate, and the remembrance of which will ever render me unhappy. Before our departure, we erected on the island in the middle of the bay, to which I gave the name of *Isle du Cénotaphe*, or Cenotaph Island, a monument to the memory of our unfortunate companions; and M. de Lamanon wrote the following inscription and account, which he buried in a bottle at the foot of the monument: 1786. July.

"AT THE ENTRANCE OF THIS HARBOUR PERISHED TWENTY-ONE BRAVE SEAMEN. READER, WHOEVER THOU ART, MINGLE THY TEARS WITH OURS.

"On the 4th of July, 1786, the frigates the Boussole and Astrolabe, which sailed from Brest the 1st of August, 1785, arrived in this port. Owing to the care of M. de la Pérouse, commander in chief of the expedition; of the viscount de Langle,

1786. July. commander of the Astrolabe; of Messrs. de Clonard and de Monti, first lieutenants of the two ships; and of the other officers and the surgeons, the crew had experienced none of those diseases which usually attend long voyages. M. de la Pérouse congratulated himself, as we all did, for having sailed from one end of the world to the other, through dangers of every kind, having visited people reputed barbarians, without losing a single man, or spilling a drop of blood. On the 13th of July, three boats departed at five in the morning, to place the soundings on the plan that had been drawn of the bay. They were commanded by M. d'Escures, lieutenant of a man of war and knight of St. Lewis. M. de la Pérouse had given him written instructions, expressly prohibiting him from approaching the current; but at the moment when he thought himself at a distance from it, he was drawn into it. Messrs. de la Borde, two brothers, and M. de Flassan, who were in the boat of the second frigate, hesitated not to expose their own lives, to assist their comrades. But, alas! they only shared their fate. The third boat was under the command of M. Boutin, lieutenant of a man of war. This officer, bravely struggling against the breakers, made vain but useless attempts to assist his friends for some hours, and would have perished likewise, but for the superior construction of his boat, his enlightened prudence, that of M. Laprise Mouton, lieutenant of a frigate, his second, and the activity and prompt obedience of his crew, consisting of John Marie, cockswain, Lhostis, le Bas, Corentin Jers, and Monens, all four seamen. The Indians appeared to participate in our grief, which is extreme. Affected but not discouraged, by our misfortune, we departed the 30th of July, to continue our voyage.

"*Names of the officers, seamen, and marines, who were drowned on the 13th of July, a quarter after seven in the morning.*" 1786. July.

The BOUSSOLE.		The ASTROLABE.	
OFFICERS.		OFFICERS.	
Messrs.		Messrs.	
d'Escures,		de la Borde Marchainville,	brothers.
de Pierrevert,		de la Borde Boutervilliers,	brothers.
de Montarnal.		Flassan.	
CREW.		CREW.	
Lemaitre, first pilot.		Soulas, corporal and cockswain,	marines.
Lieutot, corporal and cockswain,	all marines, the oldest not thirty-three.	Philiby,	marines.
Prieur,	all marines, the oldest not thirty-three.	Juliens le Penn.	marines.
Fraichot,	all marines, the oldest not thirty-three.	Peter Rabier,	marines.
Berrin,	all marines, the oldest not thirty-three.	Thomas Andrieux,	captains of the top, and in the flower of their age."
Bolet,	all marines, the oldest not thirty-three.	Goulvin Tarreau,	captains of the top, and in the flower of their age."
Fleury,	all marines, the oldest not thirty-three.	William Duquesne.	captains of the top, and in the flower of their age."
Chaub,	all marines, the oldest not thirty-three.		

Our stay at the entrance of the bay procured us much information respecting the manners and customs of the savages, which it would have been impossible for us to have acquired at the other anchorage. Our vessels were moored near their villages, we visited them several times a day, and

1786. July. every day we had reason to complain of them, though our conduct towards them continued uniformly the same, and we never ceased to give them proofs of gentleness and good-will.

On the 22nd of July they brought us part of the wreck of our boats, which had been driven on the eastern shore, very near the bay, and informed us by signs, that they had interred the body of one of our unfortunate companions on the strand, where it had been thrown up by the waves. In consequence of this information, Messrs. de Clonard, de Monneron and de Monti, immediately set off, and directed their course towards the east, accompanied by the savages who had brought us the pieces of wreck, and whom we had loaded with presents.

Our officers walked seven or eight miles over the stones, in a miserable road, while every half hour the guides demanded a fresh payment, or refused to proceed; and at length they stole into the wood, and made their escape. The officers discovered too late, that their report was a mere trick, framed to obtain presents. In this walk they saw vast forests of firs, of such noble dimensions, that some which they measured were five feet in diameter, and appeared to be upwards of a hundred and forty feet high.

We were not surprised at the account they gave us of the stratagem of the savages, who in knavery and theft were unparalleled. Messrs. de Langle and de Lamanon, with several other officers and naturalists, had made an excursion

two days before to the westward, for a similar melancholy purpose, and with no better success; but they discovered an Indian village on the banks of a small river, which was staked quite across for the salmon fishery. We had long suspected that this fish came from that part of the coast, but we were not certain of it, till this adventure satisfied our curiosity. M. Duché de Vancy made a drawing, which will explain the particulars of this fishery.* In this it will be seen, that the salmon, coming up the river, are stopped by the stakes: unable to leap over them, they turn back towards the sea; in the angles of the dike are placed very narrow wicker baskets, closed at one end, into which they enter, and being unable to turn in them, they are thus caught. This fishery is so abundant, that the crews of both vessels had plenty of salmon during our stay, and each ship salted two casks. 1786. July.

Our travellers saw likewise a morai,† from which they learned, that these Indians were accustomed to burn the bodies of the deceased, and preserve the head. They found one wrapped in several skins. This monument consists of four tolerably strong posts, supporting a little chamber of planks, in which are reposited the ashes of the dead, enclosed in chests. They opened the chest, unfolded the skins in which

* This drawing is not come to hand. (French Editor.)

† I have retained the name *morai*, because it is more suitable than tomb to convey the idea of an exposure to the open air.

1786. July. the head was wrapped, and, having satisfied their curiosity, replaced every thing with scrupulous exactness, adding presents of iron instruments and beads. The savages, who witnessed this visit, showed a little uneasiness; but they did not fail to take away the presents left by our travellers without delay. Some others of us, going to the place the next day out of curiosity, found only the ashes and the head. They placed there some fresh presents, which experienced the same fate as those of the preceding day.—I am convinced the Indians would have been pleased, had we repeated our visits several times a day. But if they allowed us, though with a little repugnance, to visit their tombs, it was not the same with their huts, which they would not permit us to approach, till they had sent away their wives, who are the most disgusting beings in the universe.

Every day we saw fresh canoes enter the bay; and every day whole villages departed, and gave place to others. These Indians seemed to have considerable dread of the passage, and never ventured to approach it, unless at the slack water of flood or ebb. By the help of our glasses we distinctly perceived, that, when they were between the two points, the chief, or at least the principal Indian, arose, stretched out his arms towards the sun, to which he appeared to address a prayer, while the rest paddled away with all their strength. In the course of our inquiries respecting this custom, we learned, that seven

very large canoes had lately been lost in this passage, while an eighth escaped. This the Indians who were saved consecrated to their god, or to the memory of their comrades. We saw it by the side of a morai, which no doubt contained the ashes of some who were shipwrecked. 1786. July.

This canoe did not resemble those of the country, which are formed only of the trunk of a tree, hollowed out, and heightened on each side by a plank, sewed to the bottom of the canoe. This had timbers and wales like our boats; and the frame, which was well made, had a covering of seal-skins, which served instead of planks, sewed together with such nicety, that the best workmen in Europe would find it difficult to imitate. This covering, which we measured with great care, was reposited in the morai, by the side of the coffers of ashes; and the frame of the canoe remained naked near it, raised upon stocks.

I could have wished to have brought this covering to Europe, which might easily have been done, as no Indian could have opposed it, this part of the bay being uninhabited. Beside, I am well persuaded, that the persons shipwrecked were strangers: my conjectures on which head I shall give in the following chapter. But a religious respect for the asylums of the dead is universal, and I was willing that this should remain inviolate.

1786. July. At length, on the 30th of July, at four in the afternoon, we got under way with a very faint breeze from the west, which held us till we were three leagues from the land. The horizon was so clear, that we perceived and set Mount St. Elias, bearing true north-west, distant at least forty leagues. At eight in the evening the entrance of the bay bore north, three leagues distant, and by the lead we were in ninety fathoms water, muddy bottom.

CHAPTER IX.

Description of Port des Français—It's Latitude and Longitude—Advantages and Disadvantages of this Harbour—It's Vegetable and Mineral Productions—Birds, Fishes, Shells, and Quadrupedes—Manners and Customs of the Indians—Their Arts, Weapons, Dress, and Inclination to Theft—Strong Reasons to presume, that the Russians alone have an indirect Communication with these People—Their Music, Dancing, and Passion for Gaming—Dissertation on their Language.

THE bay, or rather harbour, to which I have given the name of Port des Français, is situate, according to our observations and those of M. Dagelet, in 58° 37′ north latitude, and 139° 50′ west longitude. The variation of the compass is 28° east and the dip 74°. The plan of the harbour will exhibit it's extent and figure, better than any description. At new and full moon the tide rises seven feet and half, and it is high-water at one o'clock. The winds in the offing, or perhaps other causes, act so powerfully on the current of the passage, that I have seen the flood tide set in like the most rapid river, while, under different circumstances, though at the very same 1786. July.

1786. July. age of the moon, it might be stemmed by a boat. In my different excursions I have found, that the tide sometimes rises fifteen feet above the level of the sea. This is probably in the winter. When the wind blows strong any way from the south, the entrance of the harbour must be impassable; and at all times it must be difficult from the currents. To get out of it, likewise, requires a combination of circumstances, the want of which may detain a vessel some weeks. A ship can sail only at the moment of high water: the breeze from the west or north-west frequently does not begin to blow till near eleven o'clock, so that you cannot avail yourself of the morning tide: the easterly winds, which are contrary, appear to me more frequent than the westerly: and the height of the adjacent mountains never allows the north or land wind to be felt in the road. As this harbour affords great advantages, I have thought it incumbent on me to expose it's inconveniences also. It appears to me ill-calculated for vessels fitted out on a trading voyage for furs. These should anchor in many bays, and make but a short stay; because the Indians will have disposed of their whole stock in a week, and every loss of time is very detrimental to the interests of the owners. But a nation intending to establish a factory on this coast, like that of the English at Hudson's Bay, could not choose a more suitable place. A single battery of four heavy guns, erected on the point of the continent, would be sufficient to defend such a narrow entrance,

rendered so difficult by the currents; and this battery could neither be turned nor taken by land, because the sea breaks violently on the coast, so that a landing on it is impracticable. The fort, magazines, and all the buildings for commercial purposes, should be erected on Cenotaph Island, which is nearly a league in circumference, capable of being cultivated, and affords both wood and water. The vessels not having to seek for a cargo, which they would be certain of finding collected on a single spot, would be exposed to no danger. A few buoys, to point out the interior navigation of the bay, would render it extremely safe and easy. Pilots would be formed, who, knowing better than we the direction and velocity of the current, at certain times of the tide, would facilitate the going in and out of vessels. And lastly, our trade in otter-skins was so considerable, that I do not think a greater quantity can be collected in any part of America. 1786. July.

The climate on this coast appears to me infinitely more mild than that of Hudson's Bay in the same latitude. We measured pines that were six feet in diameter, and a hundred and forty feet high; while those of the same species at Prince of Wales's Fort and Fort York are scarcely big enough for studding-sail booms.

Vegetation here, during three or four months of the year, is very vigorous. I should be little surprised to see Russian wheat, and a great number of common plants succeed. We found

1786. July. abundance of celery, round-leaved sorrel, lupines, wild pease, yarrow, succory, and bastard fox-glove *(mimulus)*. Every day, and every meal, the ship's copper was filled with these herbs. We ate of them in soups, ragouts, and sallads; and they contributed not a little to the preservation of our health. Among these pot-herbs we saw almost all that are common in the meadows and mountains of France: angelica, marigolds *(bouton d'or)*, violets, and several species of grass proper for fodder. All these herbs might have been boiled and eaten without danger, had they not been mingled with a very rank cicuta, on which we had made no experiments.

The woods are full of raspberries, strawberries, and gooseberries. There are found in them also the elder tree, dwarf willow, different species of heath that grow in the shade, the Carolina poplar-tree, the tacamahaca *(peuplier-liard)*, the willow *(saule-mar saut)*, the horn-beam, and those lofty pines, which would be fit for masts for our largest ships. No vegetable production of this country is unknown in Europe. M. de la Martinière met with only three plants which he thought new; and a botanist might do as much as this in the vicinity of Paris.

The rivers abounded with trout and salmon; but in the bay we caught nothing but halibut *(fletans*)*, some of them weighing upward of a

* Or *faitans*, a flat fish, longer and less square than the turbot, the skin of which is covered with small scales on the upper part. Those that are caught in Europe are much smaller. (French Editor.

hundred pounds, small ling *(vieilles*)*, one single thornback *(caplans†)*, and a few plaice. As we preferred to any of these salmon and trout, of which the Indians sold us more than we could consume, we employed ourselves very little in fishing, and that only with the hook and line. Indeed our occupations never allowed us to shoot the seine, which would have required five and twenty or thirty men to haul it ashore. Muscles lie in heaps on the part of the shore which is dry at low water, and the rocks are studded with small and tolerably curious limpets. Different sorts of whelks and other sea-snails also are found in the hollows of the rocks. I saw on the sand of the shore pretty large kima cockles, and M. de Lamanon brought from a place more than two hundred toises above the level of the sea, petrifactions of the shell known to conchologists by the name of *royal cloak*, and more commonly *St. James's shell*, of the largest size, and in very good preservation. This fact is nothing new to the naturalist, who may have found them at far greater heights: but I am persuaded it will long be difficult to account for it in a satisfactory manner. We did not find a single shell of this kind thrown upon the shore, which is indisputably nature's cabinet. 1786. July.

* A fish resembling the cod in taste and appearance, but usually larger, and as easy to be taken on account of it's greediness. (Freuch Editor.)

† This fish resembles the whiting, though a little larger. It is tender, well-flavoured, and easy of digestion. It abounds on

1786. July. Our sportsmen saw bears, martens, and squirrels, in the woods; and the Indians sold us skins of black and brown bears, the Canadian lynx, ermine, marten, squirrel, gray squirrel, beaver, Canadian marmot, or monax, and red fox. M. de Lamanon also caught a water-rat alive. We saw elk skins tanned, and a horn of a wild goat: but the most valuable and common furs are those of the sea otter, sea bear, and wolf. We found birds in sufficient number, but no great variety. The coppices were full of sparrows, nightingales, blackbirds, and yellowhammers. It was their season of love, and to me their song was very delightful. We saw the white-headed eagle and the raven sailing through the air: we surprised and killed a kingfisher; and we observed a very beautiful blue jay, with some humming-birds. The swallow and black oyster-catcher make their nests in the hollows of the rocks on the sea-shore. The gull, the redfooted guillemot, and the cormorant, with some ducks and divers of the large and small species, were the only water-fowl we perceived.

But if this country resemble many others in it's animal and vegetable productions, it's aspect is very different, and I doubt whether the profound valleys of the Alps and Pyrenees exhibit a picture equally terrific, and at the same time so picturesque, as to be well worth visiting by

the coast of Provence, where it is known by the name of *capelan*, or poor priest. (French Editor.)

the curious, were it not at one of the extremities of the world. 1786. July.

The primitive mountains of granite or schistus, covered with eternal snow, on which neither tree, nor plant, is to be seen, have their base in the water, and form a kind of quay on the shore. Their acclivity is so steep, that even the wild goats cannot ascend higher than five or six hundred yards; and all the gullies that separate them are vast glaciers, the summits of which cannot be seen, while their bases are washed by the sea. At a cable's length from the shore we could find no bottom with a line of a hundred and sixty fathoms.

The sides of the harbour are formed by secondary mountains, not more than eight or nine hundred toises in height. These are covered with pines, carpeted with verdure, and merely capped with snow. To me they appeared to be composed entirely of schistus, in a state of incipient decomposition. They are not inaccessible, though very difficult to ascend. Messrs. de Lamanon, de la Martinière, Collignon, abbé Mongès, and father Receveur, those ardent and indefatigable naturalists, could not reach their summits, though they ascended a considerable height with unspeakable fatigue. Not a stone, nor a pebble, escaped their search. Too skilful naturalists not to be aware, that specimens of every fossil that constitutes the bulk of a mountain are to be found in the adjacent valleys, they collected ochre, cupreous pyrites, friable

1786. July. but very large and perfectly crystallised garnets, crystals of schœrl, granite, schisti, hornstone, very pure quartz, mica, plumbago, and fossil coral. Some of these indicate, that the mountains enclose ores of iron and copper, but we perceived no trace of any other metal.

For a country so frightful, nature provides inhabitants differing as widely from civilised nations, as the land I have described from our cultivated plains. Rude and barbarous, as their soil is wild and rugged, they inhabit the country only to extirpate every thing that lives and moves upon it. At war with every animal, they despise the vegetables that spring up around them. I have seen women and children eat a few raspberries and strawberries: but these are no doubt insipid to the palates of men, who are precisely on the earth what the vulture is in the air, or the wolf and the tiger in the forest.*

Their arts are considerably advanced, and their civilisation in this respect has made great progress; but in every thing that polishes and sof-

* An old proverb puts credulity on it's guard against the narratives of travellers. This prejudice might weaken the confidence of certain readers, who do not reflect on the regard a navigator would pay to his fame, and that his least deviation from truth might draw formal impeachments of his veracity from the numerous witnesses by whom he was accompanied. If, however, the reader cannot suppress that sentiment which reflection excludes, I only request him, in order to satisfy himself, to consult what Dixon has said on the north-western coast of America; bearing in mind, that the English navigator made this voyage the year after la Pérouse, and could know nothing of his journal. (French Editor.)

tens the ferocity of manners, they are yet in their infancy. The manner in which they live, excluding every kind of subordination, renders them continually agitated by vengeance or fear. Choloric and prompt to take offence, I have seen them continually with the poignard unsheathed against each other. Exposed to perish with hunger in the winter, when the chase cannot be very productive, they live in the summer in the greatest abundance, as they can catch more fish in an hour than is sufficient for their family. The rest of the day they remain idle, spending it in gaming, of which they are as passionately fond as some of the inhabitants of our large cities. This is the grand source of their quarrels: and I do not hesitate to pronounce, that this tribe would be completely exterminated, if the use of any intoxicating liquor were added to these destructive vices. 1786. July.

Philosophers may exclaim against this picture if they please. They may write books by their firesides, while I have been voyaging for thirty years. I have been witness to the knavery and injustice of these people, whom they depict as good, because they are so little removed from a state of nature; but this nature is sublime only in the great, in the minutiæ of things it is negligent. It is impossible to penetrate woods not thinned by the hand of civilised man; to traverse plains filled with stones and rocks, and deluged with impassable morasses; and to associate with

1786. July. the man of nature, because he is savage, deceitful, and malicious. Confirmed in this opinion by melancholy experience, I have not thought it my duty, however, to employ the force with which I was entrusted, to repel the injustice of these savages, and teach them, that there is a law of nations, which is never to be violated with impunity.

Some of the Indians were continually about our ships in their canoes, and spent three or four hours before they began to barter a little fish, or two or three otter skins, taking every opportunity to rob us, catching at every bit of iron that could easily be carried off, and examining particularly in what way they could deceive our vigilance during the night. I made the principal persons come on board my vessel, and loaded them with presents; yet these very men, whom I so particularly distinguished, never disdained to steal a nail or an old pair of breeches. Whenever they assumed a smiling and cheerful air, I was sure they had stolen something, though I very often pretended not to see it.

I had particularly recommended caressing the children, and gratifying them with little presents. The parents were insensible to this mark of kindness, which I thought must be felt in every country: the only reflection it excited in their minds was, that, by asking to accompany their children, they would have an opportunity of robbing us; and for my own information I

several times procured myself the pleasure of seeing the father avail himself of the moment when our attention appeared most engaged by his child, to hide under his garment of skin whatever was within his reach. 1786. July.

I sometimes assumed an appearance of wishing for trifles of little value belonging to Indians whom I had just loaded with presents; but I always made this trial of their generosity in vain.

I will admit if you please, that it is impossible for a society to exist without some virtues; but I am forced to confess, that here I could not perceive any. Always quarrelling among themselves, indifferent to their children, absolute tyrants to their wives, who are incessantly condemned to the most laborious occupations, I observed nothing among these people to mellow the tints of the picture.

We never landed except in force, and armed. They greatly dreaded our muskets, and eight or ten Europeans together were sufficient to awe a whole village. Our two surgeons being so imprudent as to go a shooting alone, were attacked. The Indians endeavoured to snatch their fowling-pieces from them, but could not succeed: two men being sufficiently formidable to them, to make them retire. The same thing happened to M. de Lesseps, the young Russian interpreter; but fortunately the crew of one of our boats came to his assistance. These acts of hostility appeared to them so natural, that they did not

1786. July. desist from coming on board, and never suspected the possibility of our making reprisals.*

I have given the appellation of village to three or four sheds of wood, twenty-five feet long, by fifteen or twenty wide, and closed with planks or bark of trees only on the side exposed to the wind. In the middle was a fire, over which hung salmon and halibut drying in the smoke. Eighteen or twenty persons lodged under each of these sheds, the women and children on one side, and the men on the other. It appeared to me, that each hut contained a small tribe unconnected with it's neighbours; for each had it's canoe, and a sort of chief; each departed, left the bay, and took away it's fish and it's planks, without the rest of the village appearing to take the least concern in the business.

I think I may venture to affirm, that this place is inhabited only in the summer, and that the Indians never pass the winter here. I did not see a single hut, that afforded shelter from the rain; and though there were never three hundred Indians collected in the bay at one time, we were visited by seven or eight hundred others.

Canoes were coming in and going out continually, and each brought or carried away it's house, and it's furniture, which consisted in se-

* In the lines of this picture the reader will trace the painful impression of the recent loss, which was related in the preceding chapter. As all accounts agree, however, respecting the principal facts, from which even anthropophagy must aot be expunged, I thought it right not to soften any thing, as the whole bears the stamp of a sensibility honourable to it's author. (French Editor.)

veral little coffers containing their most valuable effects. These coffers are placed at the entrance of their huts, which are so filthy and stinking, that the den of no known animal can be compared to them. They never go two steps distant to obey the calls of nature, of which they make no mystery, and for which they seek no shade; continuing the conversation in which they were engaged, as if they had not a moment to lose; and if it happen at meal-time, they quickly resume their place, from which they do not retire even a couple of yards.* The wooden vessels, in which they cook their fish, are never washed. They serve for kettles, dishes, and plates: and as they cannot be set over the fire, they make the water boil in them with red-hot pebbles, which they renew till their food is sufficiently dressed. They are also acquainted with the art of roasting, which they perform in the same

1786. July.

* "The inside of these dwellings exhibits a complete picture of dirt and filth, indolence and laziness; in one corner are thrown the bones, and remaining fragments of victuals left at their meals, in another are heaps of fish, pieces of stinking flesh, grease, oil, &c." Dixon's Voyage, p. 173.

Cook describes the filthiness of the insides of the houses of the inhabitants of Nootka Sound in the following words: "The nastiness and stench of their houses are, however, at least equal to the confusion. For, as they dry their fish within doors, they also gut them there, which, with their bones and fragments thrown down at meals, and the addition of other sorts of filth, lie every where in heaps, and are, I believe, never carried away, till it becomes troublesome, from their size, to walk over them: in a word, their houses are as filthy as hog-sties; every thing in and about them stinking of fish, train-oil, and smoke." Cook's third Voyage, Vol. II. Page 316. (French Editor.)

1786. July. manner as our soldiers in camp. It is probable, that we saw but a very small part of these people, who in all likelihood occupy a considerable space along the sea-shore; visiting in summer the different bays in search of food like the seals, and in winter retiring farther within the land, to hunt beavers and other animals of which they brought us the spoils. Though they go barefoot, the soles of their feet are not callous, and they cannot walk over stones; which proves, that they travel only in canoes, or on the snow with snow-shoes.

Dogs are the only animals with which they have formed any alliance. Of these each hut has commonly three or four. They are small; resemble the shepherd's dog of Buffon; scarcely ever bark, but make a whistling noise much like that of the jackal of the Carnatic;* and are so savage, that they seem to be to other dogs what their masters are to civilised people.

The men of this country bore holes through the cartilages of the nose and ears, and append to them different little ornaments. They make scars on the arms and breast with a very keen iron instrument, which they sharpen by rubbing it on their teeth as on a whetstone. Their teeth are filed down to the gums, by means of a rounded piece of sandstone in the shape of a

* A wild, carnivorous, and dangerous animal, common in Asia, related to the wolf and the dog. It barks by night like the dog, but not so loud. It's skin is yellowish, and makes a handsome fur. (French Editor.)

tongue. Ochre, lamp-black, and plumbago, mixed with seal oil, are employed by them to paint the face and the rest of the body, which is a frightful appearance. On occasions of high ceremony, they wear their hair long, braided, and powdered with the down of sea-fowl. This is the height of their luxury, and perhaps engrossed by the heads of families. A simple skin is thrown over their shoulders, and the rest of the body is left naked, except the head, which they commonly cover with a little straw hat, curiously woven: though sometimes they wear on their heads caps with two horns, eagle's feathers, and entire heads of bears fitted on a skull-cap of wood. These kinds of head-dresses are greatly diversified, but their principal object, like that of most of their customs, is to render them frightful, perhaps to awe their enemies. 1786. July.

Some of the Indians had complete shirts of otter-skins: and the common dress of the grand chief was a shirt of tanned elk-skin, bordered with a fringe of deer's hoofs and beaks of birds, the jingling of which when he danced was not unlike that of sheep's bells. This dress is well known to the savages of Canada, and to other nations which inhabit the eastern parts of America.*

* "The chief (who always conducts the vocal concert) puts on a large coat, made of the elk skin, tanned, round the lower part of which is one, or sometimes two rows of dried berries, or the beaks of birds, which make a rattling noise whenever he moves." Dixon's Voyage, p. 242. (French Editor.)

1786. July. I saw no appearance of tatooing, except on the arms of some of the women. These, however, have a custom, which renders them hideous, and which I could hardly have believed, had I not seen it. All without exception have the lower lip slit close to the gum the whole width of the mouth, and wear in it a kind of wooden bowl without handles, which rests against the gum, and which the slit lip serves as a collar to confine, so that the lower part of the mouth projects two or three inches.* The drawing made by M.

* This custom appears to be general among the tribes that inhabit the north-western coast of America, from the latitude of 50° to 61°. It even extends to the savages of the Fox and Aleutian Islands. See what Coxe says in his Account of Russian Discoveries.

At Port Mulgrave in latitude 59° 33′ north, and longitude 142° 20′ west of Paris,

" An aperture is made in the thick part of the under-lip, and increased by degreess in a line parallel with the mouth, and equally long: in this aperture, a piece of wood is constantly wore, of an elliptical form, about half an inch thick; the superficies not flat, but hollowed out on each side like a spoon, though not quite so deep; the edges are likewise hollowed in the form of a pully, in order to fix this precious ornament more firmly in the lip, which by this means is frequently extended at least three inches horizontally, and consequently distorts every feature in the lower part of the face. This curious piece of wood is wore only by the women, and seems to be considered as a mark of distinction, it not being wore by all indiscriminately, but only those who appeared in a superior station to the rest." Dixon's Voyage, p. 172.

At Norfolk Sound, in latitude 57° 3′ north, longitude 137° 5′ west of Paris.

" The women, too, ornament, or rather distort their lips in the same manner as I have already described; and it should seem,

1786. July. I saw no appearance of tatooing, except on the arms of some of the women. These, however, have a custom, which renders them hideous, and which I could hardly have believed, had I not seen it. All without exception have the lower lip slit close to the gum the whole width of the mouth, and wear in it a kind of wooden bowl without handles, which rests against the gum, and which the slit lip serves as a collar to confine, so that the lower part of the mouth projects two or three inches.* The drawing made by M.

* This custom appears to be general among the tribes that inhabit the north-western coast of America, from the latitude of 50° to 61°. It even extends to the savages of the Fox and Aleutian Islands. See what Coxe says in his Account of Russian Discoveries.

At Port Mulgrave in latitude 59° 33′ north, and longitude 142° 20′ west of Paris,

" An aperture is made in the thick part of the under-lip, and increased by degreess in a line parallel with the mouth, and equally long: in this aperture, a piece of wood is constantly wore, of an elliptical form, about half an inch thick; the superficies not flat, but hollowed out on each side like a spoon, though not quite so deep; the edges are likewise hollowed in the form of a pully, in order to fix this precious ornament more firmly in the lip, which by this means is frequently extended at least three inches horizontally, and consequently distorts every feature in the lower part of the face. This curious piece of wood is wore only by the women, and seems to be considered as a mark of distinction, it not being wore by all indiscriminately, but only those who appeared in a superior station to the rest." Dixon's Voyage, p. 172.

At Norfolk Sound, in latitude 57° 3′ north, longitude 137° 5′ west of Paris.

" The women, too, ornament, or rather distort their lips in the same manner as I have already described; and it should seem,

Duché de Vancy, which is extremely accurate, will render more plain than any description this custom, the most disgusting perhaps that exists upon the face of the earth *(Charts and Plates*, N° 23 and 24.) The young girls wear only a needle in the lower lip: the married women alone have 1786. July.

that the female who is ornamented with the largest piece of wood, is generally most respected by her friends, and by the community in general." *Ib.* p. 186.

Speaking of the island of Hippah, one of the Queen Charlotte's islands, in latitude 53° 48′ north, longitude 135° 29′ west of Paris, the same gentleman says:

"There were likewise a few women amongst them, who all seemed pretty well advanced in years; their under lips were distorted in the same manner as those of the women at Port Mulgrave and Norfolk Sound, and the pieces of wood were particularly large. One of these lip-pieces appearing to be peculiarly ornamented, captain Dixon wished to purchase it, and offered the old woman to whom it belonged a hatchet; but this she refused with contempt; toys, basins, and several other articles were afterwards shown to her, and as constantly rejected. Our captain began now to despair of making his wished-for purchase, and had nearly given it up, when one of our people happening to show the old lady a few buttons, which looked remarkably bright, she eagerly embraced the offer, and was now altogether as ready to part with her wooden ornament as before she was desirous of keeping it. This curious lip-piece measured three and seven-eighth inches long, and two and five-eighth inches in the widest part: it was inlaid with a small pearly shell, round which was a rim of copper." *Ib.* p. 208.

We may also compare what Cook says of the customs of the savages of Oonalashka; of Norton's Sound, in latitude 64° 31′ north, and longitude 165° 7′ west of Paris; and of Prince William's Sound, in latitude 61° 11′ 30″ north, longitude 148° 52′ west of Paris; in his third Voyage, Vol. III. (French Editor.)

1786. July. a right to the bowl.* We sometimes prevailed on them to lay aside this ornament; but it was with difficulty; and they made the same gestures, and testified the same embarrassment, as an European woman on discovering her bosom. The lower lip dropped on the chin, when the piece of wood was removed, and this second exhibition was scarcely more agreeable than the first.

These women, the most disgusting in the world, covered with stinking hides, often not even tanned, were still capable of exciting desire

* As marriage among savages can be subject to no formalities but those prescribed by nature, I think, with Dixon, that the bowl is rather a sign of puberty, or motherhood, than a mark of dignity, or of the woman being the exclusive property of one man. This may be the principle, on which the respect paid to those who are decorated with it is founded; for I do not suppose, that the being deprived of this honour can be any punishment in a country so little civilised, particularly as it would be very easy to know those again who had enjoyed it.

"This curious operation of cutting the under lip of the females never takes place during their infancy, but, from every observation I was able to make, seems confined to a peculiar period of life. When the girls arrive to the age of fourteen or fifteen, the centre of the under lip, in the thick part near the mouth, is simply perforated, and a piece of copper wire introduced to prevent the aperture from closing; the aperture afterwards is lengthened, from time to time, in a line parallel with the mouth, and the wooden ornaments are enlarged in proportion, till they are frequently increased to three, or even four inches in length, and nearly as wide, but this generally happens, when the matron is advanced in years, and consequently the muscles are relaxed; so that possibly old-age may obtain greater respect than this very singular ornament." Dixon's Voyage, p. 187. (French Editor.)

in the breasts of some of the persons, not of the most delicate taste. At first they raised difficulties, and declared, by signs, that they should hazard the loss of their lives; but when they were overcome by presents, they wished the sun to be witness of their actions, and refused to retire into the woods.* No doubt the sun is 1786. July.

* In general the particulars of Dixon's narrative agrees so well with the account of la Pérouse, that I can scarcely conceive the reason of their difference in appreciating the charms of the female sex. Did chance present to Dixon an object single in her kind? Or was the difference owing merely to the known warmth of imagination of a seaman, particularly after a long voyage? Be this as it may, the following are his words:

"They are particularly fond of painting their faces with a variety of colours, so that it is no easy matter to discover their real complexion; however, we prevailed on one woman, by persuasion, and a trifling present, to wash her face and hands, and the alteration it made in her appearance absolutely surprised us; her countenance had all the cheerful glow of an English milk-maid; and the healthy red which flushed her cheek, was even *beautifully* contrasted with the whiteness of her neck; her eyes were black and sparkling; her eye-brows the same colour, and most beautifully arched; her forehead so remarkably clear, that the translucent veins were seen meandering even in their minutest branches: in short, she was what would be reckoned handsome even in England: but this symmetry of features is entirely destroyed by a custom extremely singular, &c." Dixon's Voyage, p. 171.

In support of what Dixon says, however, I ought to quote the Spanish account of a voyage in 1777, written by Don Maurelle, second captain of the frigate la Favorita. This navigator, having spoken of the custom of wearing the ridiculous ornament in a hole in the middle of the under lip, adds: "were they better dressed, many might dispute the prize of beauty with the handsomest of our women in Spain." (French Editor.)

1786. July. the god of these people; they frequently address prayers to him; but I saw neither temple, nor priest, nor trace of regular worship.

The stature of these Indians is much the same as ours. Their features vary considerably, and exhibit no peculiar characteristic marks except in the expression of their eyes, to which gentleness is an utter stranger. The colour of their skin is very brown, because it is incessantly exposed to the air: but their children are born as fair as ours. They have, it is true, less beard than Europeans, but sufficient to render it impossible to be questioned; and to suppose all the Americans beardless is an error, that has been too lightly adopted. I have seen the natives of New England, Canada, Nova Scotia, and Hudson's Bay, and I have found among them all several individuals with beards, which induced me to believe, that the rest are accustomed to eradicate the hair.* The frame of their body is slight.

* "The young men have no beards, and I was at first inclined to think that this arose from a natural want of hair on that part, but I was soon undeceived in this particular; for all the men we saw, who were advanced in years, had beards all over the chin, and some of them whiskers on each side the upper lip.

"As this supposed defect amongst the natives of America has occasioned much speculative inquiry amongst the learned and ingenious, I took every opportunity of learning how it was occasioned, and was given to understand, that the young men got rid of their beards by plucking them out, but as they advance in years, the hair is suffered to grow." Dixon's Voyage, p. 238.

The weakest of our seamen would have thrown the strongest of the Indians in wrestling. I saw some whose swelled legs seemed to indicate the scurvy, though their gums were sound. I suspect they never arrive at any very old age; I saw but one woman that appeared to be sixty; and she enjoyed no privileges, but was obliged like the rest, to submit to the various labours imposed on her sex. 1786. July.

My voyages having enabled me to compare the different nations, I can affirm, that the Indians of Port des Français are not Esquimaux, but have evidently one common origin with all the inhabitants of the interior part of Canada and North America.

Customs altogether different, and a very peculiar physiognomy, distinguish the Esquimaux

An enemy to all system, and truth being uniformly the object of my inquiries, I will never suppress assertions contradictory to those of la Pérouse. Thus I am persuaded the reader will be gratified by the following extract from count Carli's American Letters.

" Certainly it is no way surprising to see the Americans without hair on the body, or the chin, since the Chinese and Tartars are equally destitute of it, if we may credit the unanimous report of historians. Hippocrates informs us, that the Scythians, in his time, had likewise no beard, and no hair on the body. The Huns probably descended from these Scythians, since Jornandes tells us, that they grew old without a beard, after having attained the age of puberty without the ornament of manhood. The history of Hyton the Armenian, who escaped from Tartary in 1305, and turned monk in Cyprus, relates, that the Tartars, particularly those of Cathay, had no beard. How many people are there in Asia and in Africa similarly circumstanced!" Lett. xxiv. (French Editor.)

1786. July. from the other Americans. They inhabit the coast of Labrador, Hudson's Strait, and a strip of land reaching quite across America as far as the peninsula of Alashka; and appear to me to resemble the Greenlanders. It is very doubtful, however, whether either Asia or Greenland were the original country of these people: an idle question, and incapable of ever being solved in a manner to admit of no dispute. Suffice it, that the Esquimaux are a nation of fishermen rather than of hunters, preferring oil to blood, and perhaps to every thing else, and very commonly eating their fish raw. Their canoes are uniformly covered with seal-skins stretched very tight. They are so dexterous in the water, that they may be considered almost as amphibious animals, and even the seal himself can scarcely claim it more as his proper element. Their faces are square; their eyes, and their feet, small; their chest, broad; their stature, short. No one of these characteristics is applicable to the indigenous inhabitants of Port des Français; who are much taller, thin, and not at all robust; and who are very unskilful in the construction of their canoes, which are formed of a trunk of a tree hollowed out, and heightened on each side by a plank.

They fish, as we do, by staking rivers across, or with the hook and line. Their mode of angling is very ingenious. Each line is fastened to a large seal's bladder, and set adrift. One canoe has twelve or fifteen of them. When a

fish is caught, he drags along the bladder, and the canoe rows after it. Thus a couple of men can attend twelve or fifteen lines, without the trouble of holding them in the hand.* 1786. July.

These Indians have made much greater progress in arts than in morals, and their industry is farther advanced than that of the inhabitants of the South-Sea islands. I except agriculture, however, which giving man a fixed habitation, securing him subsistence, and exciting in his mind the fear of seeing the earth he has planted laid waste, is perhaps of all means the most efficacious to soften his manners, and render him a social being.

The Americans of Port des Français know how to forge iron, fashion copper, spin the hair of divers animals, and form with the needle, of the thread thus procured, a stuff not unlike to French tapestry. They intermingle with this slips of otter-skin, which gives their cloaks a resemblance of the finest silk plush. Hats and baskets of rushes are no where woven with more skill; and they ornament them with pleasing figures.

* "———the success of their fishery, which is conducted in a very singular manner. They bait their hook with a kind of fish, called by the sailors *squids*, and having sunk it to the bottom, they fix a bladder to the end of the line as a buoy, and should that not watch sufficiently, they add another Their lines are very strong, being made of the sinews or intestines of animals. One man is sufficient to look after five or six of these buoys, &c." Dixon's Voyage, p. 174. (French Editor.)

It appears from Sir G. Staunton's account, that the same method of fishing is practised in China. T.

1786. July. They likewise carve all sorts of figures of men and animals, in wood or stone, in a very tolerable manner; make boxes of a tolerably elegant form, and inlay them with the opercula of shells; and cut serpentine into ornaments, giving it the polish of marble.

Their weapons are the poignard I have already described; a lance of wood hardened by the fire, or pointed with iron, according to the wealth of the owner; and a bow and arrows. The arrows are commonly headed with copper; but the bow has nothing particular, and is much weaker than those of many other nations.

Among their trinkets I found pieces of yellow amber: but whether it be a production of their country, or procured, like their iron, from the ancient continent, by an indirect intercourse with the Russians, I am ignorant.

I have already mentioned, that seven large canoes were wrecked at the entrance of the harbour. These canoes, a draught of which was taken from the only one saved, were thirty-four feet long, four broad, and six deep. Dimensions so considerable rendered them fit for long voyages. They were covered with seal-skins, after the manner of those of the Esquimaux; which led us to suppose, that Port des Français is a station for trade, inhabited only in the fishing season. It appeared to us very possible, that the Esquimaux in the neighbourhood of the islands of Schumagin, and of the peninsula explored by Cook, extend their commerce to this part of America, whither

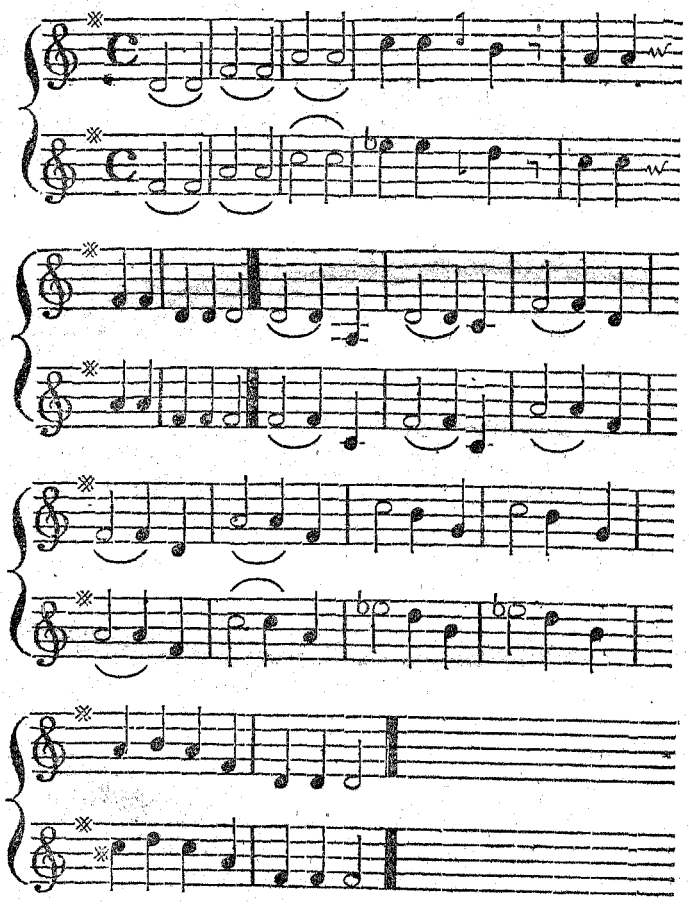
they bring iron and other articles, carrying back, with profit to themselves, otter-skins, of which the latter* are so desirous. The form of the canoes lost, and the great quantity of skins we procured, which may have been collected here to be sold to these strangers, seem to confirm this conjecture. I should not have hazarded it, however, but that it appears to account better than any other for the iron and other European wares in their possession. 1786. July.

Of the passion of these Indians for gaming I have spoken above. The kind to which they are addicted is altogether a game of chance. They have thirty little sticks, each marked with a different number.† Seven of these they hide. Each plays in turn, and he who guesses nearest to the number on the seven sticks, gains the stake, which is commonly a piece of iron, or a hatchet. This game renders them grave and melancholy: yet I have often heard them sing, and when the chief came to visit me, he commonly paraded round the ship singing, with his arms stretched out in form of a cross as a token of friendship. He then came on board, and acted a pantomime, expressing either a battle, a

* *Ces derniers* in the original. But should we not read *les Russiens*, "the Russians"? The printer might easily have made the mistake if the hand-writing of the manuscript were not very plain: and it might as easily have been overlooked by the editor, who was not the writer himself. The correction appears necessary also to the chain of argument. T.

† "Differently marked like our dice," in the original. But this cannot be, because our dice are all marked in the same manner. "Like the different sides of our dice," is probably the meaning of the author. T.

1786. July. surprise, or death. The air that preceded this dance was pleasing, and tolerably melodious. The following are the notes of it, as accurately as we could take them down.*



* They who have the strongest voices take the air a third lower, and the women a third higher, than the natural pitch. Some sing an octave to it, and often make a rest of two bars, at the place where the air is highest.

M. de Lamanon is the author of the following dissertation on the language of this people. I shall only insert here the numerical terms, as a satisfaction to those readers who may wish to compare those of different nations.* 1786. July.

One — —	*keirrk.*
Two — —	*theirk.* †
Three — —	*neisk.*
Four — —	*taakhoun.*
Five — —	*heitschine.*
Six — —	*kleitouchou.*
Seven — —	*takatouchou.*
Eight — —	*netskatouchou.*
Nine — —	*kouehok.*
Ten — —	*tchinecate.*
Eleven — —	*keirkrha-keirrk.*
Twelve —	*keirkrha-theirk.*
Thirteen — —	*keirkrha-neisk.*
Fourteen —	*keirkrha-taakhoun.*
Fifteen — —	*keirkrha-keitschine.*
Sixteen —	*keirkrha-kleitouchou.*
Seventeen — —	*keirkrha-takatouchou.*
Eighteen —	*keirkrha-netskatouchou.*
Nineteen — —	*keirkrha-kouehok.*

* A more extensive vocabulary, comprising the languages of different nations visited by our navigators, has been mentioned as the work of Messrs. Monneron, Lesseps, Lavaux, Lamanon, abbé Mongès, and father Receveur; but it never came to hand. (French Editor.)

† To represent the guttural *r*, which these people pronounce still harder than the Germans their *chr*, I have employed *rh*, to be sounded as in pronouncing *rhabiller*, speaking very thick, as more conformable to the French language.

1786. July.

Twenty — —	*theirha.*
Thirty — —	*neiskrha.*
Forty — —	*taakhounrha.*
Fifty — —	*keitschinerka.*
Sixty — —	*kleitouchourha.*
Seventy — —	*takatouchourha.*
Eighty — —	*netskatouchourha.*
Ninety — —	*kouehokrha.*
One Hundred —	*tchinecaterha.*

"Our characters are not capable of denoting the language of these people. It is true they have some articulations resembling ours, but to many we are absolutely strangers. They make no use of the consonants B, F, X, J, D, P, V; and notwithstanding their talent for imitation, they could never pronounce the first four. It was the same with the liquid L, and the liquid G N. They articulate the letter R as if it were double, and by speaking very thick. The *chr* of the Germans they pronounce as hard as the Swiss of certain cantons. They have likewise an articulate sound very difficult to catch, which we could not attempt to imitate without exciting their laughter: it may be partly represented by the letters *khlrl*, making but one syllable, and pronounced by the help of the tongue and throat at the same time. This syllable may be found in the word *khlrleies*, signifying the hair of the head. Their initial consonants are K, T, N, S, M; of which the first are most frequently used. None of their words begin with R; and almost all

end with *ou*, *ouls*, *oulch*, or some vowel. Their thick speaking, the frequent recurrence of the letter K, and their double consonants, render the language very harsh. It is less guttural when spoken by the men, than by the women, who cannot pronounce the labials, on account of the piece of wood, named *kentaga*, which they fix in the lower lip. 1786. July.

"The harshness of their language is less perceptible when they sing. It was not in my power to make many observations on the parts of speech, from the difficulty of communicating abstract ideas by signs; I observed, however, that they have interjections to express the sentiments of admiration, anger, and pleasure. I do not think they have any articles, for I found no words frequently recurring, and serving to connect their discourse. They are acquainted with numerical relations, and have names of numbers; yet they do not distinguish the plural from the singular, either by difference of termination, or by articles. I showed them a seal's tooth, which they called *kaourré*; and they gave the same name, without any variation, to several teeth together. They have not sufficiently generalised their ideas, to have words in any considerable degree abstract: they have not sufficiently particularised them, not to give the same name to things very distinct. Thus, with them, *kaaga* signifies equally the head and the face; and *alcaou*, a chief and a friend. I did not find any resemblance between the words of this language, and those of the language of Alashka,

1786. July. Norton's Sound, and Nootka Sound, or of the Greenlanders, Esquimaux, Mexicans, Nadouessies, or Chipawaws, with the vocabularies of which I have compared it. I have spoken to them words of all these tongues; but they did not understand one of them, though I varied my pronunciation as much as possible: yet, although perhaps there is not a single idea, or a single thing, to express which the same word is used by the people at Port des Français, and those whom I have mentioned, still there must be a greater affinity of sound between this language and that of Nootka. K is the predominant letter in each, occurring in almost all their words. The initial consonants, and the terminations, are often the same in both. And it is not impossible, perhaps, but the language of Port des Français may have a common origin with that of Mexico: though this origin, if it be a fact, must be referred to a very remote age, since the two idioms have an affinity only in the primary elements of words, not in their signification."

I shall finish the article respecting these people by observing, that we found among them no trace of anthropophagy: yet it is so general a custom among the American Indians, that perhaps I should have been able to have added this stroke to the picture, had they been at war, and taken a prisoner.*

* Captain Meares has proved, by his account of his voyages, that the people inhabiting the north-western coast of America, are cannibals. (French Editor.)

CHAPTER X.

Departure from Port des Français—We proceed to explore the Coast of America—Captain Cook's Bay of Islands—The Pilot Maurelle's Ports of los Remedios and Bucarelli—Iles de la Croyère—Islands of San Carlos—Description of the Coast from Cross Sound to Cape Hector—We reconnoitre a large Gulph or Channel, and accurately determine its Width—Iles Sartine— Captain Cook's Woody Point—Verification of our Timekeepers—Breaker Point—Iles Necker—Arrival at Monterey.

THE forced stay I had just made at Port des Français compelled me to change the plan of my navigation on the coast of America. I had still time to run it down, and ascertain it's direction; but it was impossible for me to think of putting into any other harbour, still less of reconnoitring every bay. All my schemes must be subordinate to the absolute necessity of arriving at Manilla by the end of January, and at China in the course of the month of February, in order to employ the following summer in exploring the coasts of Tartary, Japan, Kamtschatka, and the Aleutian Islands. I saw with regret, that a plan so extensive allowed me time only to glance at objects, and never to clear up any doubt; but as I was 1786. Aug.

1786. Aug. obliged to navigate seas in which monsoons prevail, I must either lose a whole year, or arrive at Monterey between the 10th and 15th of September, spend only six or seven days there in recruiting our stock of wood and water, and then traverse, with all possible speed, a space of more than 120° of longitude, or near 2400 leagues, on the Pacific ocean. I had well founded apprehensions, that I should not have time to visit the Caroline Islands, and those to the north of the Ladrones, as I had been directed. Whether we should explore the Carolines was to be determined by our being more or less fortunate in our passage; and this we might reasonably presume would be long, in consequence of the bad sailing of our vessels: beside, the geographical situation of these islands, which lie far to the west, or to leeward, would not allow me to include them without difficulty, in my farther schemes of navigation to the south of the line.

These different considerations determined me to give M. de Langle fresh places of rendezvous, in case of separation. I had appointed him Port de los Remedios and Nootka Sound; but it was agreed between us, that we should stop only at Monterey. This port was preferred, because, being the most distant, on our arrival there, we should have the greater quantity of wood and water to replace.

Our misfortune at Port des Français required some change in our staff: on M. Darbaud, a very well-informed midshipman, I conferred an

ensign's commission; and a lieutenant's on M. Broudou, a young volunteer, who had given me, since we left France, various proofs of his intelligence and zeal. 1786. Aug.

I proposed to the officers and passengers, to sell our furs at China for the profit of the crew alone; and my proposal being unanimously received with transport, I gave M. Dufresne an order to act as supercargo. This commission he executed with a zeal and judgment, which I cannot too highly commend. He had the management of the purchasing, packing, sorting, and selling, the different furs; and as I am certain there was not a single skin privately bought, this arrangement enabled us to learn, with the utmost precision, their price in China, which might have been altered by a competition in the sale. It was likewise of greater advantage to the sailors; and they were convinced, that their interest and health had never ceased to be the principal objects of our attention.

The renewal of our voyage was not very fortunate at the commencement, and by no means answerable to my impatience. We advanced only six leagues in the first eight and forty hours. The light winds during these two days varied through the eastern half of the compass from north to south. The weather was dull and foggy. We were constantly within three or four leagues of the shore, and in sight of the low land; but the high mountains we could see only at intervals. This was sufficient to connect our bearings, and ascertain with precision the direction of the

1786. Aug. coast, the most remarkable points of which we took care to fix by accurate determinations of the latitude and longitude. I could have wished, that the winds had permitted me to examine this coast rapidly as far as Cape Edgecumbe, or Enganno, because it had already been visited by Cook, though indeed he ran along it at a considerable distance: but his observations were so exact, that if he made any mistakes they must have been infinitely small: and I felt, that, equally hurried with that celebrated navigator, it was no more in my power than in his to attend to minutiæ, which would require to be the object of a particular expedition, and occupy several seasons. I was extremely eager to arrive at the latitude of 55°, and have a little time to bestow in reconnoitring thence to Nootka Sound, a gale of wind having driven Cook fifty or sixty leagues off that part of the coast. It was in this part of America that the Chinese must have landed, according to M. de Guignes; and it was also in this latitude, that admiral Fuentes found the entrance of the Archipelago of Saint Lazarus.

I was far from giving credit to the conjectures of M. de Guignes, or the narrative of the Spanish admiral, whose very existence I believe may be disputed: but, struck with the observation I have already made, that all the islands and countries, mentioned in the ancient accounts of the Spaniards, have been re-discovered in modern times, though their longitude and latitude were very inaccurately given, I was induced to imagine, that some ancient navigator of that labori-

ous nation had found a gulf, the entrance of which might be in this part of the coast; and that this single fact might have served as a foundation to the ridiculous romance of Fuentes and Bernarda. If I should find such a channel, it was not my intention to penetrate into it, as the season was too far advanced; and I could not think of sacrificing the whole plan of my voyage to such a search, unless in the hope of being able to reach the sea on the east of America by traversing it's continent. But as I was certain, from Hearne's journey, that this passage was a mere chimera,* I was resolved merely to ascertain the breadth of this channel, and it's length for twenty-five or thirty leagues, according to the time I should have; leaving to such nations as the English, Spaniards, and Americans, who have possessions on the American continent, to explore it more accurately, which could be of little advantage to general navigation, the sole object of our voyage. 1786. Aug.

The fog, rain and calms, did not cease till the 4th at noon: when we had an observation in latitude 57° 45′ north, three leagues from the land, which we could not perceive very distinctly on account of the haze. Fortunately it cleared up at four o'clock, when we perfectly distinguished the entrance of Cross Sound, which appeared to me to form two bays, stretching very far into the

* La Pérouse, too honest to suspect a political falsity in the account of Hearne's journey, delivers in this place, an opinion altogether opposite to mine. I shall hereafter resume this important subject. See the notes, vol. i. page 340, and vol. ii. page 60. (French Editor.)

1786. Aug. land, and in which it is probable vessels would find good anchorage.

The high mountains covered with snow, the peaks of which are thirteen or fourteen hundred toises above the level of the sea, terminate here. The hills on the sea side, to the south-east of Cross Sound, though they have still an elevation of eight or nine hundred toises, are covered with trees to their summits; and the chain of primary mountains appears to me to run far into the interior of America. At sun-set the west point of Cross Sound bore north 25° west, distant about five leagues; Mount Fairweather, north 5° west; and Mount Crillon, north 45° west. This mountain, almost as lofty as Mount Fairweather, is to the north of Cross Sound, as Mount Fairweather is to the north of Port des Français. They serve as marks for the harbour to which they are adjacent. It would be easy to mistake one for the other in coming from the southward; but they differ 15′ in latitude, and Mount Fairweather appears from every point of view, accompanied with two less lofty mountains, while Mount Crillon is more isolated, and it's point inclines toward the south. I continued to run along the coast at the distance of three leagues; and the mountains being still very hazy, and the low land visible only at intervals, we exerted ourselves to distinguish the heights, that we might not lose the chain of our bearings.

Our progress was very slow, as we made only ten leagues in twenty-four hours. At day-break I set a cape bearing north 29° west, on the south

of the entrance of Cross Sound, which I called Cape Cross.* We had on our beam an infinite number of little low islands, covered with wood: the high hills appeared in the back ground: and the mountains covered with snow were no longer visible. I approached the little islands, so as to bring the breakers within sight from the deck, and I perceived between them several passages, which must form good roads. It was to this part of America Cook gave the name of Bay of Islands. At sunset the entrance of the Port de los Remedios bore from us east 2° south, that of Guadaloupe Bay east 21° south, and Cape Enganno east 33° south; but all these points, all these capes, were badly defined, on account of the fog that covered their summits. 1786. Aug.

From Cross Sound to Cape Enganno, an extent of twenty-five leagues, I am convinced twenty different harbours might be found, and three months would hardly suffice to explore the labyrinth. For my part I confined myself, in pursuance of the plan I had formed on my departure from Port des Français, to determine with accuracy the beginning and end of these islands, their direction along the coast, and the entrances of the principal bays.

On the 6th the weather cleared up a little, we were able to observe the sun's altitude, and com- 6.

* Cook called it by the same name, but he fixes it's latitude at 57° 57'. This difference must arise from the configuration of the coast, which in this part presents several capes, and Cook certainly determined the position of that which appears on the chart farthest to the south. (French Editor.)

1786. Aug. pare the true time with that given by our timekeepers. Our latitude was 57° 18′ 40″; and our longitude, deduced from the new rate of going of our timekeepers, determined on Cenotaph Island, 138° 49′ 30″. I have already mentioned the excellence of the timekeepers made by M. Berthoud: their loss on the mean daily motion of the sun is so trifling, and so uniform, that this artist may be considered as having brought them to the highest degree of perfection of which they are susceptible.

The 6th was a tolerable clear day, and our bearings were every thing we could wish. At seven in the evening we still discerned Mount Crillon north 66° west, Mount San Jacinto north 78° east, and Cape Enganno east 10° south.* This cape is a low land advancing a considerable way into the sea; and Mount San Jacinto rests on it, the figure of which is a truncated cone rounded on the summit. It's height must be at least two hundred toises.

7. In the morning of the 7th we perceived the coast on the side of Cape Enganno opposite to that along which we had sailed the preceding day. Mount San Jacinto appeared well defined, and we discovered to the east of it a wide bay, the head of which was concealed from us by a fog; but it lies so open to the south and south-east winds, which are the most dangerous, that a

* The Mount San Jacinto and Cape Enganno of the Spaniards are the Mount Edgecumbe and Cape Edgecumbe of Cook. (French Editor.)

navigator must be cautious of anchoring in it.* The land is covered with trees, and of the same elevation as that to the south of Cross Sound. The summits of the mountains are slightly capped with snow, and they are so numerous and peaked, that a trifling change of situation is sufficient to alter their appearance. These heights are some leagues within the land, and appear in the distance: in front of them are hills; and these subside into a low land with gentle risings, which terminates in the sea. Before this undulating coast are islands resembling those I have already mentioned. We determined the situation only of the most remarkable, the others are set down at hazard, merely to show, that they are very numerous. Then, both to the north and to the south of Cape Enganno, for a space of ten leagues, the coast is bordered with islands. By ten in the morning we had doubled them all, the hills appeared open, and we could delineate their outlines. At six in the evening we set a cape to the north-east, which advanced a great way to the west, and formed with Cape Enganno, the south east point of the great bay, one third of which, as I have already observed, is filled with small islands. Between the last of these islands and the new cape, we saw two large 1786. Aug.

* Dixon anchored here to collect furs. He gave it the name of Norfolk Sound. It's latitude is 57° 3′ north: it's longitude, reduced to the meridian of Paris, 138° 16′ west.

He anchored in eight fathoms, sandy ground, three quarters of a mile from the shore. Cook saw the entrance of this sound on the 2nd of May, 1778, but he did not come to an anchor here, (French Editor.)

1786. Aug. bays,* which appeared to run far into the land. To the last mentioned cape I gave the name of Tschirikow, in honour of the celebrated Russian navigator, who landed in this part of America in 1741. Behind this cape, to the east is a spacious bay, which I likewise named Tschirikow Bay. At seven in the evening I made a group of five islets,† separated from the continent by a channel of four or five leagues, and mentioned neither by Cook nor Maurelle. This group I named the Islands of *la Croyère*, in memory of the French geographer de Lisle de la Croyère, who sailed with captain Tschirikow, and died on the voyage. As night approached I stood towards the offing. The breeze from the west con-
8. tinued favourable to us the whole day of the 8th; and we made our observation in latitude 55° 39′

* These two bays, which la Pérouse named Port Necker and Port Guibert, are so near, that it is doubtful in which Dixon anchored: but this navigator, having coasted along the shore on each side of his anchorage, which he called Port Banks, found no bays but what were much smaller than that in which he was, and entirely uninhabited.

The latitude of Port Banks is - - - - - - - - - - 56° 35′
It's longitude west, reduced to the meridian of Paris, 137° 20′
(French Editor.)

† Dixon has marked these five islets on his chart by the name of Hazy Isles.

According to the determination of la Pérouse they are in
Latitude north - - - - - - - - - - - - - 55° 50′ 0″
Longitude west - - - - - - - - - - - - 137 11 0
According to Dixon,
Latitude north - - - - - - - - - - - - - 55 50 0
Longitude west, reduced to the meridian of Paris, 137 0 45

I believe I need not adduce any arguments to prove, that the determinations of la Pérouse deserve in every respect the preference. (French Editor.)

31″ north, longitude by our timekeepers 137° 5′ 23″ west. We perceived several wide openings between considerable islands, which appeared at different distances; while the continent was so remote, that we could not discern it. This new archipelago, very distinct from the former, begins four leagues to the south-east of Cape Tschirikow, and reaches probably to Cape Hector. The currents near these islands are very strong, and were felt by us at the distance of three leagues. The Port Bucarelli of Maurelle is in this part. (*Charts and Plates*, N° 26.) Both his chart, and the explanation of it, were unintelligible to me. But his volcanoes, and his Port Bucarelli, are situate in islands perhaps forty leagues from the main-land. I own I should not be surprised to learn, that we had coasted along nothing but islands since we left Cross Sound;* for the aspect of the land was very different from what it was farther north, and I observed the lofty chain of Mount Crillon lose itself in the east. 1786. Aug.

The 9th, at seven in the morning, as we continued to run along the land at the distance of three leagues, we saw the islands of San Carlos. 9.

* Dixon is of a similar opinion, and I think every probability is in it's favour.

———"So that we were near the middle of the island toward the northward and eastward. In this situation we saw high land to the north-west, near 30 leagues distant, and which evidently was the same we had seen on the 1st of July. This circumstance clearly proved the land we had been coasting along for near a month, to be a group of islands." Dixon's Voyage, p. 216. (French Editor.)

1786. Aug. The largest lies south-east and north-west, and may be two leagues in circumference. A long chain unites it to some other islets, very small and low, which extend a considerable way into the channel. I am persuaded, however, that a passage is left sufficiently wide:* though I was not sufficiently certain of this to venture to explore it, as the wind set right in; so that if my conjectures had not been well founded, I should have found it very difficult to double the islands of San Carlos in the offing, and have lost time that was precious to me. I ranged along the outermost of the islands within half a league; and at noon, being at this distance west of the south-east point, we determined it's position with the utmost accuracy, to be in 54° 48′ of latitude north, and 136° 19′ of longitude west.

It blew a fresh breeze from the west-north-west; the weather thickened, and I crowded sail towards the land, over which the fog increased as we approached. At half after seven in the evening, we were scarcely above a league from the shore, yet I could hardly discern it, though the breakers were in sight from the deck. I set a large cape, which bore by the compass east-north-east, but nothing was perceptible beyond it, so that it was impossible to form any judgment of the direction of the coast: accordingly I thought it advisable to wear ship, and wait for

* This passage appears actually to exist. Dixon likewise saw it, and had recourse to it to trace, partly at a venture, the strait to which he gave his name. (French Editor.)

clearer weather. The fog dispersed only for a moment. 1786. Aug.

On the 10th of August, at noon, we observed in latitude 54° 20′ north, longitude 135° 20′ 45″ west by our timekeepers. I had stood again towards the land from four o'clock in the morning, and I perceived it a league and half distant in the south-west, on the breaking of the fog. It had the appearance of an island: but the clear space was of so little extent, and so short duration, that it was impossible to make any thing out distinctly. As we had not expected to find land in this point of the compass, our uncertainty of the direction of the coast was increased. During the night we had crossed currents more rapid than any I ever met with in the open sea; but as our reckoning agreed with our observations, it is probable, that the currents were occasioned by the tide, and set with equal force in opposite directions, so as to balance each other. 10.

The weather grew very foul in the night of the 10th. The fog thickened, and it blew a strong gale. In consequence I stood out to sea. At day-break we put about again, and approached so near the land, that at one in the afternoon I made the same point as we saw the evening before. It extended from the north-north-east to south-east by south, and connected almost all our bearings, leaving however an opening of eight or nine leagues, where we perceived no land. I know not whether this were owing to the fog, or to some deep bay or other openings in that part;

1786. Aug. but I presume the latter, on account of the strength of the currents of which I have spoken. Had the weather been more clear, we should have left no doubt on this head, since we approached within a league of the land, and saw the breakers distinctly. It runs much farther to the south-east than I supposed from the chart of the Spanish pilot, which merits no confidence. We had an observation at noon, which gave us 54° 9′ 26″ of latitude north; and I continued to run along the coast at the distance of a league till four o'clock in the afternoon; when the fog thickened so much, that we could no longer see the Astrolabe, though we were within hail of her, and I stood
12. off to sea. During the whole of the 12th the weather never cleared up; and as I was so uncertain of the direction of the land, I increased
13. my distance from it to ten leagues. On the 13th
14. and 14th the weather was foggy, and almost a calm. I availed myself of the light breezes to re-approach the land, from which, at six in the evening, we were still five leagues distant.

Since we passed the islands of San Carlos, we had never been able to find bottom with a line of a hundred and twenty fathoms, even within a league of the land.

15. On the 15th the weather cleared up, and we got within two leagues of the land. In some places it was skirted with breakers, which extended a considerable way into the offing. The wind blew from the east, in which point we set a large bay. The horizon was very extensive, though the sky

was cloudy. We could see the coast for eighteen or twenty leagues on either hand; it stretched from the north-north-east to the south-south-east, and appeared to run south-south-east and north-north-west much farther to the south than I imagined. 1786. Aug.

At eight o'clock in the morning I was obliged to stand off shore, on account of a thick fog with which we were surrounded, and which continued till ten o'clock on the 16th. We then saw the land very indistinctly to the north-east; but the fog soon obliged me to lay the ship's head towards the offing again. The whole of the 17th was calm; the mist at length dispersed, and I perceived the land at the distance of eight leagues. The want of wind did not allow me to get near it; but we took excellent observations of the moon's distance from the sun, for the first time since we left Port des Français. Our latitude was 53° 12′ 40″; our longitude, according to our timekeepers, 136° 52′ 57″; but the mean result of our lunar observations gave 137° 27′ 58″, or 35′ 1″ more to the west, and that of the Astrolabe 15′ less. The breeze from the west-north-west having freshened, and the weather continuing clear, I approached the land, and was within a league and half of it on the 18th at noon. Running along the coast at this distance, I discovered a bay of such depth, that I could not discern the land at the head of it. I gave it the name of *Baie de la Touche*. It lies in latitude 52° 39′ north, longitude 134° 49′ west, and, I have no doubt, affords very good anchorage. 16. 17. 18.

1786. Aug. A league and a half farther to the east we saw another inlet, in which possibly good shelter for ships may likewise be found, but it appeared to me far inferior to Baie de la Touche. From the parallel of 55° to 53° the sea was covered with that species of diver, named by Buffon *macareux du Kamtschaka*.* This bird is black; it's beak and claws are red; and on the head are two stripes of white feathers, which rise in form of a crest, like those of the cockatoo. We perceived some to the southward, but they were rare, and appeared to be in some sort travellers. These birds never venture more than five or six leagues from the land, and seamen who meet with them during a fog may be nearly certain they are within that distance. We shot two, which were stuffed. This bird is known only by Behring's Voyage.†

19. On the 19th, in the evening, we had sight of a cape, which appeared to terminate the coast of America. The horizon was very clear, and we perceived nothing beyond it but four or five small islets, to which I gave the name of *Ilots Kerouart*, and the point I called *Cape Hector*.‡ We lay be-

* The tufted auk. La Pérouse is mistaken in calling it a species of diver, *plongeon*. T.

† Captain Cook also met with it on the coast of Alascha. (French Editor.)

‡ It is the Cape St. James of Dixon,

La Pérouse's Cape Hector.	
Latitude north - - - - -	51° 57′ 20″
Longitude west - - - - -	133° 87′
Dixon's Cape St. James.	
Latitude north - - - - -	51° 46′
Longitude west, reduced to the meridian of Paris	132° 20′

calmed the whole night within three or four leagues of the land, which a light breeze from the north-west allowed me to get nearer at break of day; when I was convinced, that the coast I had been sailing along for two hundred leagues ended here, and probably formed the opening of a gulf or very wide channel, as I could see no land to the east, though the weather was very clear. Accordingly I steered my course to the north, to discover the back of the land which I had coasted along on the western side. I stood within a league of Kerouart Islets and Cape Hector, and traversed very strong currents, which even obliged me to bear up, and stand off shore. It appeared to me of considerable importance to determine the situation of Cape Hector, which forms the entrance of this new channel. It's latitude is 51° 57′ 20″ north, and it's longitude, by our time-keepers, 133° 37′ west. Night did not allow me to advance farther to the north, so I stood off and on till day-break, when I resumed my course. The weather being very clear, I saw the back of la Touche Bay, to which I gave the name of *Cape Buache*, and more than twenty leagues of the eastern coast of the land I had run along the preceding days. Recollecting then the form of the land from Cross Sound, I was greatly inclined to suppose, that this inlet resembled the Gulf of California, and extended as far as the parallel of 57° north. Neither the season, nor my farther schemes, would allow me to satisfy myself on this head: but I resolved at least to ascertain the 1786. Aug.

1786. Aug. breadth of this channel or gulf, whichever it may be called, east and west, and in consequence directed my course north-east. On the 21st, at noon, we were in latitude, by observation, 52° 1′ north, and longitude 133° 7′ 31″ west: Cape Hector bore south-west distant ten or twelve leagues, and we had no soundings. The wind soon shifted to the south-east. A thick fog succeeded to that clear sky, which had allowed us in the morning to see the land at the distance of eighteen or twenty leagues; and it blew very fresh. Prudence forbad me any longer to continue my course to the north-north-east; accordingly I hauled my wind, and stood off and on under close-reefed top-sails the whole night. At day-break, the wind abating, though the horizon was still foggy, I stood in for the land, and perceived it at noon through the fog. My latitude, by estimation, was then 52° 22′; the coast extended from north by east to east by north; and our soundings were a hundred fathoms water, rocky ground. After a short interval of a clear sky, the fog thickened again, and the weather had a threatening appearance. Again I stood off the shore; but fortunately I had taken very good bearings, and had ascertained the width of the channel or gulf from east to west, which was about thirty leagues between Cape Hector and *Cape Fleurieu*,* the name I had given to the

* Dixon calls it Cape Cox.

Cape Fleurieu of La Pérouse.

Latitude north - - - - - -	51° 45′
Longitude west - - - - - -	131° 15†

† A few pages farther on it is 131° 0′ 15″ T.

south-easternmost island of the new cluster I had just discovered, on the eastern coast of this channel. 1786. Aug.

It was behind this cluster of islands that I discovered the continent, the primary mountains of which, destitute of trees and covered with snow, appeared in ranges, one behind another, terminating in peaks seemingly upwards of thirty leagues within the land. Since leaving Cross Sound we had seen comparatively nothing but hills, and my conjectures respecting an inlet of six or seven degrees to the north were strengthened by this. The season did not permit me to investigate this opinion farther. Already we were near the end of August: the weather was almost continually foggy: and the days began to shorten. But above all, the fear of missing the Chinese monsoon induced me to give up this search, which would have required at least six weeks, on account of the precautions necessary in an enterprise of this kind, which should be undertaken only in long days and fine weather. A whole season would be scarcely sufficient for such a labour, which ought to be the object of a particular expedition: ours, infinitely more extensive, was accomplished by the accurate determination of the width of this channel, into which we penetrated about thirty leagues. We also

Cape Cox of Dixon.

Latitude north - - - - 51° 30′
Longitude west, reduced to the meridian of Paris 130° 32′.
(French Editor.)

1786. Aug. fixed the latitudes and longitudes of the capes, which form the two extremities of it's mouth, with such precision, that as much dependance may be placed upon them, as upon the most remarkable of the coasts of Europe. It was with regret I saw, that we had advanced but a very little way since we left Port des Français, and I had not a moment to lose in my passage to Monterey. The reader will be sensible, that, during the whole course of this voyage, my imagination was always obliged to precede my vessel two or three thousand leagues, because my routes were to be accommodated to the monsoons and to the seasons, in every part of the two hemispheres I was to explore, as I had to visit very high latitudes, and traverse straits between New Holland and New Guinea, subject probably to the same monsoons as those of the Moluccas, or other islands in the same sea.

23. The fog was very thick during the night, and I stood to the south-south-west. At day-break there was a very fine clear, though only for a short time; but at eleven o'clock the fog entirely dispersed. We set Cape Fleurieu north-east by north, and had excellent observations. Our latitude was 51° 47′ 54″; our longitude, by our timekeepers, 132° 0′ 50′. We lay becalmed the whole day; but after sunset the wind shifted to the north-west, with a very hazy horizon. I had previously set Cape Fleurieu north by east. It's latitude and longitude, determined by M. Dagelet, are 51° 45′ north, 131° 0′ 15″ west.*

* In the last note of the editor, p. 160, it is 131° 15′. T.

I have already said, that this cape forms the point of a lofty island, behind which I could no longer perceive the continent, as it was concealed by the fog. It grew still thicker in the night, and I often lost sight of the Astrolabe, though I could hear her bell. 1786. Aug.

At day-break the weather became fine. Cape Fleurieu bore north-west 18° west, distant eighteen leagues. The continent stretched as far as due east. The horizon, though dull, allowed it to be seen at the distance of twenty leagues. I steered east to get nearer the land, but the coast soon became again covered with fog, and a break in the south-south-east enabled me to discern a cape in that point of the compass. 24.

That I might not be embayed in a gulf from which I should find it difficult to extricate myself, by running to the east before the wind, I altered my course, and soon discovered, that the land to the south-south-east, towards which I was now steering, was formed by several clusters of islands, which extended from the continent to the islands in the offing, and on which I could not see a single bush. I passed within a mile of them; and we could perceive grass and drift-wood upon the shore. The latitude of the westernmost island is 50° 56′, and the longitude 130° 38′. I gave these clusters the general name of *Iles Sartine.** It is probable a passage might be

* The Beresford's Islands of Dixon, who assigns them 50° 52′ of north latitude, and 132° 3′ of west longitude, reduced to the meridian of Paris. (French Editor.)

1786. Aug. found between them: but it would not be prudent to venture in without caution. After having doubled them, I stood towards the continent, steering east-south-east. It bore from the north-north-east to south-east by east. The horizon was a little foggy, though pretty extensive. We could no longer distinguish the summits of the mountains, though we saw the low land very plainly.

I continued standing on and off the whole night, that I might not pass Cook's Woody Point, the situation of which he determined; as thus the line of coast would be complete from Mount St. Elias to Nootka Sound, and I should have the advantage of comparing our longitudes with his, which would remove every doubt of their accuracy. At day-break I stood in for the land, and passed within a league and a half of Woody Point, which bore at noon north by west, distant about three leagues. It's latitude is precisely 50° 4′ north; and it's longitude 130° 25′ west. Captain Cook, who was not so near to it as we, and determined it only from his bearings, placed it in his chart in the latitude of 50°, and longitude 130° 20′, reduced to the meridian of Paris, that is to say, 4′ farther south, and 5′ farther east: but our determination merits most confidence, because we were much nearer the land, and our estimation of the distance was less liable to be erroneous. I cannot help remarking here the astonishing precision of the new methods, which in less than a century, would assign to every

point of the earth it's true situation, and contri- 1786.
bute more to the advancement of geography than Aug.
all the ages that have hitherto elapsed.

On the 25th I continued to stand to the east- 25.
ward, being desirous of making Nootka Sound before night, though this was of little importance after having accurately determined Woody Point. A very thick fog, however, which came on about five in the afternoon, completely hid the land from me, and I shaped my course for Breaker Point, fifteen leagues south of Nootka, in order to reconnoitre the coast between Cape Flattery and Breaker Point, a space of about thirty leagues, which Cook was not able to explore.

On the 26th the weather continued very foggy. 26.
The wind was squally and variable from north- 27.
east to south-east. The barometer fell: yet no gale of wind came on; but we remained in a dead calm, without steerage-way till the 28th. I had availed myself of some slight breezes to gain an offing from the land, the direction of which I imagined to be south-east. We were surrounded with small land-birds, which settled on our rigging, and several of which we caught; but they were of kinds so common in Europe, that they are not worth describing. At length, on the 28th, at five in the evening, the weather clear- 28.
ed up, and enabled us to distinguish Cook's Breaker Point, which bore north of us, with the land stretching from it as far as the north-east. It continued clear only a short time, but sufficient for us to take good bearings.

1786. Aug. 29. The weather was equally thick on the 29th of August; but the barometer rose and I stood towards the land, hoping it would clear up before night. We hove the lead every half hour. Our soundings changed from seventy fathoms, sandy bottom, to forty fathoms, pebbly ground; and after sailing a league, we had seventy-five fathoms, with a bottom of mud. It was clear we had passed over a bank: and perhaps it is not easy to explain how a hill of pebbles, a hundred and fifty feet high, and a league in extent, should be found on a bed of sand, eight leagues from the shore. It is well known, that these pebbles are smoothed only by friction; and to account for this heap, we must suppose a current like that of a river at the bottom of the sea.

At length as I had flattered myself, it cleared away at sun-set. We set the land from the east-north-east to the north-west by north, and these bearings formed an accurate connection with those of the preceding day. At noon we had an observation in latitude 48° 37′. Our longitude, by our timekeepers, was 128° 21′ 42″. The farthest point we saw to the south-east could not be more than six or seven leagues from Cape Flattery, which I was very desirous of making, but the fog was very thick.

30. On the 30th the sea grew very boisterous; the wind was variable from south to south-west; and I regained the offing. The horizon extending less than half a league from the ship, I sailed on a parallel with the coast, to get as soon as pos-

sible into the latitude of 47°, that I might explore the land thence to 45°, that part forming a gap in Cook's chart. 1786. Aug.

At noon, on the 1st of September, I made a point or cape, bearing north-north-east, about ten leagues distant, and by our bearings precisely in the latitude of 47°. The land stretched as far as the east, and I approached within three or four leagues of it. It was badly defined, being enveloped in fog. My latitude observed at noon, was 46° 36′ 21″; my longitude, by our time-keepers, 127° 2′ 5″ west, by lunar observations 126° 33′. The currents on this coast are extremely violent: we fell in with eddies, which would not suffer the ship to obey her helm with a three-knot gale, five leagues from the land. Sept. 1.

During the night, I stood along the coast, with the ship's head to the southward, under an easy sail. At day-break, I laid the ship's head to the east to re-approach the land; but four leagues from the shore we were in a dead calm, so that we lay at the mercy of the currents, which turned us about every moment, and in continual apprehension of falling aboard the Astrolabe, which was in as bad a situation. Happily we had a good muddy bottom to anchor in, if the currents had drifted us towards the shore; but there was a very heavy sea, and our cables would with difficulty have resisted the pitching. The Cape Redondo of the Spaniards bore from us 5° south: the land extended thence as far as south-east: our latitude at noon was 45° 55′; our 2.

1786. Sept. longitude by our timekeepers 126° 47′ 35″ west, and by lunar observations 126° 22′. The day before the weather had at length allowed us to observe the distances of the moon for the second time since we left Port des Français; and (to day) they gave us only 25′ 35″* difference from the longitude of our timekeepers. This day of calm was one of the most uneasy I had spent since our departure from France. There was not a breath of wind the whole night. We hove the lead every half hour, that we might come to an anchor notwithstanding the heavy sea, if we had been drifted towards the land; but we constantly found eight fathoms of water, with a muddy bottom.

3. At day-break we were the same distance from the land as on the preceding evening. Our observation gave us, as the day before, 45° 55′. Our bearings were very nearly the same; and drifted by opposite currents, which had balanced each other, it seemed as if we had only been turning on a pivot for four-and-twenty hours.

At length, at three o'clock, a light breeze sprung up from the north-north-west, by the help of which we were enabled to gain the offing, and get out of those currents, in which we had been two days involved. This breeze drove before it a fog-bank, in which we became enveloped, and which made us lose sight of the land. We had now scarcely more than five or six

* The day before, the difference was 29′ 5″

leagues of coast to explore to the latitude of 45°, the point reconnoitred by Cook. The weather was too favourable, and my time was too precious, not to avail myself of this fair wind. We set all the sail we could carry, and steered south by west, nearly parallel to the coast, which runs north and south. The night was fine; and at day-break we saw the land north by east, the horizon being clear in that point of the compass, but very foggy farther to the east. We had occasional glimpses of the coast, however, to the east-north-east, and even as far as east-south-east. At noon we had an observation, and found our latitude to be 44° 41′: our timekeepers gave our longitude 126° 56′ 17″ west, and we were about eight leagues from the land, which we approached by making easting in our course. At six in the evening we were within four leagues of the shore, which extended from north-east to east-south-east, and was very foggy. The night was very fine. I ran along the land, which we could see by the moonlight: at sun-rise, however, it was hidden by the fog; but it re-appeared at noon, the fog clearing away from north-east to south by east. Our soundings were seventy-five fathoms. 1786. Sept. 4. 5.

Our latitude was 42° 58′ 56″; and our longitude by our timekeepers 127° 5′ 20″. At two o'clock we were abreast of nine small islands or rocks, about a league distant from Cape Blanco, which bore north-east by east. I named them *Iles Necker*. I continued to run along the land,

1786. Sept. standing to the south-south-east. At the distance of three or four leagues, we perceived only the summits of the mountains above the clouds. They were covered with trees, and we could see no snow. At night the land extended to the south-east; but the men at the mast-head said they saw it as far as south by east. Uncertain of the direction of the coast, which had never been explored, I kept under an easy sail to the
6. south-south-west. At day-break we still saw the land, which stretched from the north to north by east. I steered south-east by east to get near it; but at seven in the morning a thick mist occasioned us to lose sight of it.

We found the weather in this part of America less clear than in higher latitudes, where the navigators enjoyed, at least by intervals, the sight of every thing that was above their horizon; for to us the land never once appeared distinct in all
7. it's parts. On the 7th the mist was still thicker than the day before. It cleared up, however, towards noon, and we saw the tops of mountains to the east, at a considerable distance. As we had made a southern course, it is evident, that from the latitude of 42° the coast begins to run to the east. Our latitude observed at noon was 40° 48′ 30″ north: our longitude by our time-keepers 126° 59′ 45″ west. I continued to steer so as to get nearer the land, from which I was only four leagues distant at the approach of night. We then perceived a volcano on the summit of the mountain which bore east from us.

The flame was very vivid; but a thick fog soon concealed it from our sight. Deeming it prudent again to increase our distance from the land, as I was apprehensive, that by following a course parallel to the coast, I might fall in with some rock or island at a little distance from the continent, I stood towards the offing again. 1786. Sept.

The fog was very thick. On the 8th, about ten in the morning, it cleared up a little; and we perceived the summits of the mountains: but a veil, which our eyes could not pierce, constantly hid from us the low land. The weather was grown very bad: it blew extremely fresh; and the barometer fell considerably. I continued till the beginning of the night to steer south-east, so as to get nearer the land, while I ran along the coast; but I had lost sight of it ever since noon; and at night-fall the horizon was so thick, that I might have been very near without seeing it. As there was an appearance of a gale of wind; and as, if it came from the west, I should have been on a leeshore, I thought proper to stand out to sea under the foresail and maintopsail only. It blew hard, but much less so than I had expected. 8.

At break of day the weather was cloudy, but the wind moderate, and I steered east towards the land. The fog soon made me change my course, and run along nearly parallel with the coast, the direction of which I imagined to be south by east. On the 10th and 11th the weather was equally thick. The course made good these 9. 10. 11.

1786. Sept. two days was south by east. Our horizon never extended two leagues, and very often less than a musket-shot. We had an observation, however, which gave us 36° 58′ 43″ of north latitude. Our longitude by our timekeepers was 126° 32′ 5″ west. Either we had made an error in our reckoning, or the currents had carried us 30′ to the south: but we were still 16′ north of Monterey. Though the atmosphere was foggy, we had an horizon of two leagues, and I steered east, directly towards the land. I remained standing on and
12. off the whole night. The next day the weather was still thick; yet I continued my course towards the land. At noon our longitude was 124° 52′. I could see no land, but at four o'clock we were enveloped in fog, and I resolved to continue standing off and on, till the weather grew more clear. We could not be far from the shore, several land birds flew round us, and we caught a gerfalcon.

13. The fog continued all night; and the next day, at ten in the morning, we perceived the land very foggy, and very near us. It was impossible to make out what land it was. I approached within a league of it, and saw the breakers very distinctly. Our soundings were twenty-five fathoms. But though I was certain of being in Monterey Bay, it was impossible to distinguish the Spanish settlement in such thick weather. At the approach of night I stood out to sea again, and at
14. day-break stretched in for the land, with a thick fog, which did not disperse till noon. I then

stood along the shore at a very little distance, and 1786.
at three o'clock in the afternoon we got sight of Sept.
the fort of Monterey, and of two three-masted vessels in the road. The contrary winds obliged us to come to an anchor two leagues in the offing, in forty-five fathoms, muddy bottom; and the next day we anchored in twelve fathoms, within 15.
two cables length of the land. The commander of the two vessels, Don Stephen Martinez, sent us pilots during the night: both he, and the governor of the presidio, having been apprised by the viceroy of Mexico of our expected arrival.

It is worthy of remark, that during this long course, in the midst of the thickest fogs, the Astrolabe constantly sailed within hail of us, never being at a farther distance, till I ordered captain de Langle to reconnoitre the entrance of Monterey Bay.

Before I conclude this chapter, which will appear interesting only to the navigator and geographer, I think it incumbent upon me to deliver my opinion respecting the pretended channel of Saint Lazarus of admiral de Fuentes. I am convinced this admiral never existed,* and that a voyage into the interior of America, through lakes and rivers, and performed in so short a time, is so absurd, that but for the spirit of system, which is injurious to all the sciences, geographers of a certain degree of reputation would have rejected a story destitute of all probability, and fabricated

* See the note, vol. ii. p. 60. (French Editor.)

1786. Sept. in England, at a time when the partisans and opponents of a north-west passage supported their opinions with no less enthusiasm, than was wasted at the same period in France on questions of theology a hundred times more ridiculous. The narrative of admiral de Fuentes, therefore, is to be ranked with those pious frauds, which sound reason has since rejected with the utmost contempt, and which cannot bear the light of discussion. But it may be considered as almost certain, that from Cross Sound, or at least from Port de los Remedios to Cape Hector, no navigator has coasted along any thing but islands to the latitude of 52°; and that between the islands and the continent there is a channel, the breadth of which east and west may be more or less considerable; but I believe not exceeding fifty leagues, since it is reduced to thirty at it's mouth between Cape Hector and Cape Fleurieu. This channel must be interspersed with islands, rendering the navigation of it difficult; and I am persuaded, there are several passages between these islands communicating with the open sea. The Ports de los Remedios and Bucarelli of the Spaniards are at a great distance from the continent; and if a mere form of taking possession, followed by no settlement, were not a ridiculous title, those of the Spaniards in this part of America might be disputed: for I am convinced, that Maurelle never saw any part of the continent from 50° to 57° 20′. I am absolutely certain, however, that in Port des Français, to the north of Cross Sound, we were in

America; because Behring's river, in 59° 9′, is so large, that none equal to it can be found, unless in a land of great extent. I wished to have it explored by our boats, but they could not stem the currents of it's entrance. Our frigates anchored at it's mouth. The water was whitish and fresh three or four leagues in the offing. It is probable, therefore, that the channel between the islands and the continent does not extend farther north than 57° 30′. I know geographers may draw lines to the north-east, leave Port des Français and Behring's river in America, and prolong their channel to the north and east as far as their imagination will carry them: but such a labour, unsupported by facts, would be absurd; and it is sufficiently probable, that the mouth of some river, and perhaps a navigable one, may be found on the coast of America, which forms the eastern shore of this channel; for it can hardly be thought, that the declivity of the land directs all the rivers towards the east; a rule to which Behring's river would form an exception. It is even probable, that there would be no bar at the mouths of such supposed rivers; because the channel, which is of no great width, is sheltered by the islands on the west; and it is well known, that bars are formed by the re-action of the sea in opposition to the currents of rivers.* 1686. Sept.

* This chapter, so interesting to general navigation, will no doubt leave something to be wished by seamen and geographers, and particularly by the advocates for a north-west passage. Though I am myself of the number of the latter, I cannot help

1786. Sept. observing, that if la Pérouse had attempted to explore all the bays, all the great openings, to be found on this immense extent of coast strewed with islands, he must have been obliged to give up all the other objects of his expedition, and formally disobeyed his instructions.

The honour of having achieved a perfect description of the habitable parts of the globe will be reserved for the nineteenth century. Then the important question respecting a communication of the two seas by the north of America will be decided. Let us reserve a place for the immortal name of that enterprising navigator, who, availing himself of the progress of astronomical knowledge, shall show us this communication.

To accelerate the arrival of this era, let all discouraging doubts be rejected, and let me add a word or two to what I have already said in the notes to p. 340 of Vol. I. and p. 60 of Vol. II.

The ship *Padre Eternal*, commanded by captain David Melguer, a Portuguese, sailed from Japan about the year 1660, and ran as far north as about the latitude of 84°, whence she steered her course between Spitzbergen and Greenland, and, passing to the westward of Scotland and Ireland, returned to Oporto in Portugal.

Captain Vannout, a Dutchman, asserts, that he sailed into the South-sea through Hudson's strait.

I would entreat those, who turn their thoughts to this question, to read the collection of observations on the probability of a north-west passage, inserted in the voyages of captain Meares. (French Editor.)

CHAPTER XI.

Description of Monterey Bay—Historical Details respecting the two Californias and their Missions—Manners and Customs of the converted and the independent Natives—Grain, Fruits, and Vegetables of every Kind—Quadrupeds, Birds, Fishes, Shells, &c.—Military Constitution of these two Provinces—Account of their Trade, &c.

MONTEREY BAY *(Charts and Plates,* N° 34), formed by New-Year's Point to the north, and Point Cyprus to the south, presents an opening of eight leagues in this direction, and nearly six in depth to the eastward, where the land is low and sandy. The sea rolls to the foot of the sandy downs which border the coast, and produces a noise, which we heard when more than a league distant. The lands to the north and south of this bay are elevated, and covered with trees. Vessels intending to stop here must follow the southern shore, and when they have doubled the Point of Pines, which projects to the north, the presidio appears in view, and they may come to an anchor in ten fathoms of water, within and rather near to the point, which shelters them from the winds of the sea. The Spanish vessels which make a long stay at Monterey usually approach so near the shore as the distance only of one or two 1786. Sept.

1786. Sept. cables lengths, and moor in six fathoms of water by making fast to an anchor, which they bury in the sand on the beach. They have then nothing to fear from the south winds, which are sometimes strong, but not at all dangerous, as they blow from the coast. We had soundings in every part of the bay, and anchored at the distance of four leagues from the shore, in sixty fathoms, soft mud; but as the sea is heavy, it is not possible to remain in this situation longer than a few hours, while waiting for day or the clearing up of the fog. The time of high water at full and change of the moon is at half past one. The tide rises seven feet, but as the bay is very open, the current is almost imperceptible. I never saw it run so rapidly even as half a knot. It is impossible to describe either the number of whales with which we were surrounded, or their familiarity. They blowed every half minute within half a pistol shot from our frigates, and occasioned a most annoying stench. We were unacquainted with this property in the whale; but the inhabitants informed us, that the water thrown out by them is impregnated with this offensive smell, which is perceived to a considerable distance; and to the fishermen of Greenland or of Nantucket, this would probably have been no new phenomenon.

Almost incessant fogs envelop the coasts of Monterey Bay, which renders the approach somewhat difficult. But for this circumstance there would scarcely be a safer shore. No con-

cealed rock extends farther than a cable's length; and if the fog be too thick, it is easy to anchor and wait for it's clearing up, when the Spanish settlement is seen in the angle formed by the southern and eastern shores. 1786. Sept.

The sea was covered with pelicans. It appears that these birds never fly to a greater distance than five or six leagues from the land, and navigators who meet with them during a fog may be certain of being no further distant from it. We saw them for the first time in Monterey Bay, and I have since been informed, that they are common over the whole coast of California. The Spaniards call them *alkatræ*.

A lieutenant-colonel, who resides at Monterey, is governor of both Californias. His government is more than eight hundred leagues in circumference; but his real subjects consist only of two hundred and eighty-two cavalry, who form the garrison of five small forts, and furnish detachments of four or five men to each of the twenty-five missions or parishes into which Old and New California are divided. These slender means are sufficient to secure the obedience of about fifty thousand wandering* Indians in this extensive part of America, of whom nearly ten thousand have embraced Christianity. These Indians are in general diminutive and weak, and exhibit none of that love of independence and liberty,

* They continually change their residence, according as it is the season of fishing or of hunting.

1786. Sept. which characterise the nations of the north, of whom they possess neither the arts nor the industry. Their colour nearly approaches that of the negroes whose hair is not woolly. The hair of the Californians is very strong, and would grow to a considerable length; but they cut it off at about four or five inches from the root. Many of them have beards; while others, according to the missionaries, have never had any; and it is a question which is not even decided in the country itself.* The governor, who had been a great traveller into the interior of the land, and for fifteen years had resided among these savages, assured us, that those who appeared without beards had plucked them out with the bivalve shells, which they use as tweezers. The president of the missions, who has resided nearly the same time in California, maintained the contrary opinion, and it must be difficult for a stranger to decide between them. Obliged, however, to relate precisely what we have seen, we are under the necessity of admitting, that we observed beards only on about half the adults; and of these some were of so respectable an appearance, that they might have claimed distinction in Turkey, or in the vicinity of Moscow.†

* We have given our opinion respecting the beards of the Americans in the preceding chapter: but we write these chapters during the voyage, and as we have no system to maintain, we do not hesitate to relate new facts as they come to our knowledge.

† As the governor had travelled over a much greater extent of country than the missionary, his opinion would have predominated with me, if I had been obliged to decide the question.

These Indians are extremely skilful with the bow, and killed before us the smallest birds. It is true that their patience in approaching them is inexpressible. They conceal themselves, and slide in a manner after their game, seldom shooting till within fifteen paces. 1786. Sept.

Their industry in hunting larger animals is still more admirable. We saw an Indian with a stag's head fastened on his own, walking on all-fours, and pretending to graze; and he played this pantomime with such truth, that our hunters, when within thirty paces, would have fired at him, if they had not been forewarned. In this manner they approach a herd of deer within a short distance, and kill them with their arrows.

Loretto is the only presidio of Old California, on the eastern coast of this peninsula. The garrison consists of fifty-four horsemen, who afford small detachments to the fifteen following missions, the duties of which are performed by Dominicans, who have succeeded the Jesuits and Franciscans. Of the ten missions of New California these last have remained sole possessors. The fifteen missions of the department of Loretto are *San Vicente, San Domingo, el Rosario, San Fernandez, San Francisco de Borgia, Santa Gertrude, San Ignacio, la Guadalupe, Santa Rosalia, la Conception, San Josef, San Francisco Xavier, Loretto, San Josef de Cabo Lucar, and Todos Santos.* About four thousand Indians, converted and assembled in these fifteen parishes, are the

1786. Sept. whole fruit of the long apostleship of the different religious orders, who have succeeded each other in this painful ministry. The epoch of the establishment of Fort Loretto, and the different missions which it protects, may be read in the History of California, by father Venegas. By comparing their former situation with that of the present year, it will be seen, that the progress of these missions, both temporal and spiritual, is extremely slow. As yet there is but one place inhabited by Spaniards. The country, it is true, is unwholesome, and the territory of the province of Sonora, which borders upon the Vermillion Sea to the east, and California to the west, much more attractive, since they find there a fertile soil and productive mines; objects in their eyes of much greater value than the pearl-fishery of the peninsula, which requires a certain number of divers, which it is often difficult to procure.—But northern California, notwithstanding it's great distance from Mexico, appears to me to unite infinitely more advantages. It's first establishment, which is San Diego, bears no earlier date than the 26th of July, 1769. It is the presidio farthest to the south, as San Francisco is farthest to the north. This last was built the 9th of October, 1776; that of the channel of Santa Barbara in September, 1786; and, lastly, Monterey, at present the capital and chief place of the two Californias, on the 3d of June, 1770.—The road of this presidio was discovered in 1602 by Sebastian Viscayno, commander of a small

armed squadron at Acapulco, by order of viscount de Monterey, viceroy of Mexico. Since that time the galleons, on their return from Manilla, have sometimes put into this bay, to procure refreshment after their long passage: but it was not till 1770 that the Franciscans established their first misssion here. They have ten at present, in which they reckon five thousand one hundred and forty-three Indians converted. The four following columns will show the name of the parish, the date of the establishment, the presidio on which each parish depends, and the number of converts. The Spaniards give the name of *presidio* generally to all their forts, as well in Africa as in America, situate in infidel countries; and the term implies, that there are no inhabitants, but simply a garrison residing in the citadel. 1786. Sept.

Names of parishes.	Names of presidios on which they depend.	Date of their establishment.	Number of individuals converted.
San Carlos - -	Monterey	June 3, 1770	711
San Antonio -	Idem	July 14, 1771	850
San Louis - -	Idem	Sept. 1. 1772	492
Santa Clara -	San Francisco	Jan. 18, 1777	475
San Francisco	Idem	Oct. 9, 1776	250
San Buenaventura	Santa Barbara	May 3, 1782	120
Santa Barbara	Idem	Sept. 3, 1786	...
San Gabriel -	Idem	Sept. 8, 1771	843
San Juan Capistran	San Diego	Nov. 1, 1776	544
San Diego - -	Idem	July 26, 1769	858
			5143

The piety of the Spaniards has hitherto maintained these missions and presidios at a great ex-

1786. Sept. pense, with the sole view of converting and civilising the Indians: a system much more worthy of praise than that of those avaricious individuals, who appeared to be invested with the national authority for no other purpose than to commit with impunity the most atrocious barbarities. The reader will soon perceive that a new branch of commerce may procure to the Spanish nation greater advantages than the richest mine of Mexico: and that the salubrity of the air, the fertility of the soil, and the abundance of every kind of peltry, for which China is a certain market, afford to this part of America incalculable advantages over old California, of which the unhealthiness and sterility can never be compensated by a few pearls, which must be industriously sought for at the bottom of the sea.

Before the arrival of the Spaniards, the Indians of California cultivated nothing but a small quantity of maize, and subsisted almost entirely by fishing and hunting. No country is more abundant in fish and game of every description. Hares, rabbits, and deer, are extremely common: seals and otters as abundant as in the more northern parts, and in the winter they kill a great quantity of bears, foxes, wolves, and wild cats. The coppices and plains are covered with small grey crested partridges, which live in society like those of Europe, but in covies of three or four hundred. They are fat and excellent (*Charts and Plates*, N° 36). The trees are inhabited by the most

charming birds. Our ornithologist stuffed several varieties of sparrows, blue jays, titmice, speckled woodpeckers, and troupiales*. Among the birds of prey we observed the white-headed eagle, the large and small falcon, the goss hawk, the sparrow hawk, the black vulture, the large owl, and the raven. In the ponds and on the sea-coast are found the duck, the grey and white pelican with yellow tufts, different species of gulls, cormorants, curlews, ring plovers, small water hens and herons; and, lastly, we killed and stuffed a bee-eater (*Charts and Plates*, N° 37), which ornithologists have supposed to be peculiar to the old continent. 1786. Sept.

The soil likewise is inexpressibly fertile. Every kind of garden plant thrives astonishingly. We enriched the gardens of the governor and the missions with different grains which we had brought from Paris, which were in perfect preservation, and will add to the sum of their domestic enjoyments.

The crops of maize, barley, wheat and pease, can only be compared to those of Chili. Our European cultivators can form no conception of so abundant a fertility. The medium produce of wheat is seventy or eighty for one, and the extremes sixty and a hundred. Fruit-trees are still very scarce, but the climate is extremely proper for their cultivation, and differs little from the southern provinces of France; at least the

* The *oriolus icterus* Lin. called by Latham *the icteric oriole*, and by Catesby *the yellow and black pye*. T.

1786. Sept. cold is never more intense, while the heats of summer are much more moderate, on account of the continual fogs that prevail in these countries, and communicate a degree of humidity very favourable to vegetation.

The forest trees are the stone-pine, the cypress, the evergreen oak, and the occidental plane-tree. They stand apart from each other without underwood, and a verdant carpet, over which it is pleasant to walk, covers the ground. There are vacant places, several leagues in extent, forming vast plains, that abound with all sorts of game. The land, though very productive, is sandy and light, and owes its fertility I conceive to the humidity of the air, for it is badly watered. The nearest running stream to the presidio is two leagues distant: it is a brook that flows near the mission of San Carlos, and is called by the ancient navigators Rio de Carmel. This distance was too great to allow us to fetch our water from thence, and we procured it from ponds behind the fort, where it was of a very indifferent quality, scarcely dissolving soap. The river Carmel, which affords a wholesome and agreeable drink to the missionaries and their Indians, might also with a little trouble water their gardens.

It is with the most pleasing satisfaction that I speak of the pious and prudent conduct of these religious men, which so perfectly accords with the object of their institution. I shall not conceal what I conceived to be blameable in their internal administration; but I must affirm, that,

individually good and humane, they temper by their mildness and charity the austerity of the rules which have been prescribed by their superiors. A friend to the rights of men rather than to theology, I could have wished, I confess, that there had been joined to the principles of christianity a legislation, which might gradually have made citizens of men, whose state at present scarcely differs from that of the negro inhabitants of our colonies, at least in those plantations which are governed with most mildness and humanity. 1786. Sept.

I am perfectly aware of the extreme difficulty of this new plan. I know that these men have very few ideas, and still less stability; and that if they were to cease to be treated as children, they would escape from those who have taken the pains to instruct them. I know likewise, that reasoning can produce very little effect upon them, that it is absolutely necessary to appeal to their senses, and that corporeal punishment, with rewards in a double proportion, have hitherto been the only means adopted by their legislators. But would it not be possible for ardent zeal and extreme patience to demonstrate to a few families the advantages of society, founded on the rights of the people: to establish among them the possession of property, so bewitching to all men; and by this new order of things to engage every one to cultivate his field with emulation, or to direct his exertions to some other employment?

I admit, that the progress of this new civilisation would be very slow, and the attentions neces-

1786. Sept. sary to be paid tedious and disgusting; that the theatre of action is very remote, and that the applauses of the enlightened part of mankind would never reach the ear of him who should thus have consecrated his life to deserve them. Neither do I hesitate to affirm, that human motives are insufficient for such a ministry, and that the enthusiasm of religion, with the rewards it promises, can alone compensate for the sacrifices, the disgust, the fatigues, and the dangers of this kind of life. Still I could wish that the minds of the austere, charitable, and religious individuals I have met with in these missions, were a little more tinctured with the spirit of philosophy.

I have already expressed my opinion with freedom respecting the monks of Chili, whose irregularity appeared to me in general to be scandalous.* With the same freedom I shall pourtray these truly apostolical tribes, who have abandoned the indolent life of a cloister to deliver themselves up to fatigues, cares, and solicitudes of every kind. According to my custom, I shall proceed with our own history while I relate theirs, and place before the eyes of the reader what we saw and learned during our short stay at Monterey.

We anchored on the 14th of September in the evening, two leagues from the shore, in sight of the presidio, and of two vessels which were in the

* There are monks, however, of merit in Chili; but in general they enjoy a degree of liberty contrary to the state they have embraced.

road. They had fired guns every quarter of an hour to direct us to the anchorage, which they conceived might be concealed from us by the fog. At ten in the evening, the captain of the corvette *la Favorita* came on board in his long-boat, and offered to pilot our vessels into the port. The corvette *la Princesa* had likewise sent a pilot on board the Astrolabe. We learned, that these two vessels were Spaniards, commanded by Don Estevan Martinez, lieutenant of a frigate in the department of St. Blas, in the province of Guadalaxara. The government maintains a small marine force in this port, subject to the orders of the viceroy of Mexico. It consists of four corvettes of twelve guns, and a schooner, the particular destination of which is the supply of the presidios of northern California with provisions. These are the same vessels which made the two last expeditions of the Spaniards on the north-west coast of America; and they are sometimes sent as packet-boats to Manilla, for the more speedy transmission of the orders of the court. 1786. Sept.

At ten in the morning we weighed, and anchored in the road at noon. We were saluted with seven guns, which we returned, and I sent an officer to the governor with the letter of the Spanish minister, which had been forwarded to me in France before my departure. It was not sealed, and was addressed to the viceroy of Mexico, whose authority extends to Monterey, though at the distance of eleven hundred leagues by land from the capital.

1786. Sept. Mr. Fages, commandant of the fort of the two Californias, had already received orders to afford us the same reception as to the vessels of his own nation: and he executed these orders with a degree of earnestness and benevolence which deserve our warmest acknowledgments. He did not confine himself to mere verbal politeness.—Cattle, garden-stuff, and milk, were sent on board in abundance. The desire of serving us seemed even to disturb the harmony between the commander of the two vessels and the chief of the fort. Each was desirous exclusively of providing for our wants; and when the account was to be discharged we were obliged to insist on their receiving our money. The garden-stuff, milk, poultry, and the assistance of the garrison in wooding and watering, were afforded gratis; and the cattle, sheep, and corn, were charged at so low a price, that it was evident an account had been presented to us merely because we had insisted upon it.

To these generous proceedings of Mr. Fages the utmost politeness was added. His house was our home, and all his people were at our disposal.

The fathers of the mission of San Carlos, at the distance of two leagues from Monterey, soon arrived at the presidio. No less obliging than the officers of the two vessels and the fort, they invited us to dine with them, and promised to inform us minutely concerning the government of their missions, the manner of living of the Indians, their arts, their newly-acquired habits,

and in general every thing that could interest the curiosity of travellers. We eagerly accepted this invitation, which we should not have failed to solicit if we had not thus been anticipated.— It was agreed that we should set out the day after the morrow. Mr. Fages was desirous of accompanying us, and undertook to procure us horses. After crossing a small plain, covered with herds of cattle, and in which there were a few trees only, which were necessary to shelter these animals against the rain and the sun, we ascended the hills, from whence we heard the sound of bells announcing our arrival, of which the missionaries had been previously informed by a horseman from the governor. We were received like the lords of manors when they first take possession of their estates. The president of the missions, in his ceremonial habiliments and with his holy-water sprinkle in his hand, awaited us at the gate of the church, which was illuminated in the same manner as on the greatest festivals. He conducted us to the foot of the high altar, where he chanted the *Te Deum* in thanksgiving for the happy success of our voyage. 1786. Sept.

Before we entered the church, we had passed through a square in which the Indians of both sexes were ranged in a line. They exhibited no marks of surprise in their countenance, and left us in doubt whether we should be the subject of their conversation for the rest of the day. The church is neat though thatched with straw. It is dedicated to St. Charles, and adorned with

1786. Sept. some tolerable pictures, copied from originals in Italy. Among the number is a picture of hell, in which the painter appears to have borrowed from the imagination of Callot; but as it is absolutely necessary to strike the senses of these new converts with the most lively impressions, I am persuaded that such a representation was never more useful in any country; and that it would be impossible for the protestant worship, which proscribes images, and almost all the ceremonies of our church, to make any progress with this people. I doubt whether the picture of paradise, which is opposite to that of hell, produces so good an effect upon them.—The state of tranquillity which it represents, and that mild satisfaction of the elect who surround the throne of the Supreme Being, are ideas too sublime for the minds of uncultivated savages: but it was necessary to place rewards by the side of punishment, and it was a point of duty that no change should be permitted in the kind of enjoyments which the Catholic religion promises to man.

On coming out of the church we passed through the same row of Indians, whom the *Te Deum* had not induced to abandon their post.—The children only had removed to a small distance, and formed groups near the house of the missionaries, which, as well as the different storehouses, is opposite the church. The Indian village stands on the right, consisting of about fifty huts, which serve for seven hundred and

forty persons of both sexes, including their children, who compose the mission of San Carlos, or of Monterey. 1786. Sept.

These huts are the most wretched that are any where to be met with. They are round, and about six feet in diameter and four in height. Some stakes of the thickness of a man's arm, stuck in the ground and meeting at the top, compose the framing. Eight or ten bundles of straw, ill arranged over these stakes, are the only defence against the rain; and when the weather is fine, more than half the hut remains uncovered, with the precaution, however, of two or three trusses of straw to each habitation, to be used as circumstances may require.

This general architecture of the two Californias has never undergone the smallest change, notwithstanding the exhortations of the missionaries. The Indians say, that they love the open air, that it is convenient to set fire to their house when the fleas become troublesome, and that they can build another in less than two hours. The independent tribes, who, as hunters, so frequently change their residence, have of course an additional motive.

The colour of these Indians, which is that of negroes, the house of the missionaries, their storehouses, which are built of brick, and plastered, the appearance of the ground on which the grain is trodden out, the cattle, the horses, every thing in short, brought to our recollection a plantation at St. Domingo, or any other West-India island.

1786. Sept. The proselytes are collected by the sound of a bell; a missionary leads them to work, to the church, and to all their exercises. We observed with concern, that the resemblance is so perfect that we have seen both men and women in irons, and others in the stocks;* and lastly, the noise of the whip might have struck our ears, this punishment also being admitted, though exercised with little severity.

The monks, by their answers to our different questions, left us ignorant of no part of the government of this religious community: for no other name can be given to the legislation they have established. They are the temporal as well as the spiritual governors, the products of the earth being entrusted to their care. The day consists in general of seven hours labour, and two hours prayer; but there are four or five hours prayer on Sundays and festivals, which are entirely consecrated to rest and divine worship.

Corporal punishment is inflicted on the Indians of both sexes who neglect the exercises of piety, and many sins, which are left in Europe to the Divine justice, are here punished by irons and the stocks. And lastly, to complete the similitude between this and other religious communities, it must be observed, that the moment an Indian is baptised, the effect is the same as if he had pronounced a vow for life. If he escape, to reside

* *Au bloc.* The author has given a description of this implement in a note, which we do not copy, because it is precisely designated by the English word in the text. T.

with his relations in the independent villages, he is summoned three times to return, and if he refuse, the missionaries apply to the governor, who sends soldiers to seize him in the midst of his family,* and conduct him to the mission, where he is condemned to receive a certain number of lashes, with the whip. These people have so little courage, that they never make any resistance to the three or four soldiers who so evidently violate the rights of men in their persons; and this custom, against which reason so strongly exclaims, is kept up, because theologians have decided, that they could not in conscience administer baptism to men so inconstant, unless the government would in some measure serve as their sponsor, and answer for their perseverance. 1786. Sept.

The predecessor of Mr. Fages, Mr. Philip Deneve, commander of the interior provinces of Mexico, who died about four years ago, a man replete with humanity, and a Christian philosopher, remonstrated against the practice. He thought, that the progress of the faith would be more rapid, and the prayers of the Indians more agreeable to the Supreme Being, if they were not constrained. He was desirous of a constitution less monastic, affording more civil liberty to the Indians, and less despotism in the executive power of the presidios, the government of which might be entrusted to cruel and avaricious men. He thought likewise, that it might perhaps be

* As these people are at war with their neighbours, they can never escape to a greater distance than twenty or thirty leagues.

1786. Sept. necessary to moderate their authority by the appointment of a magistrate, who might be the tribune, as it were, of the Indians, and possess sufficient authority to defend them from vexations. This upright man had borne arms in favour of his country from his infancy: but he was exempt from the prejudices of his profession, and well knew, that military government is subject to great inconveniencies, when moderated by no intermediate power. He might, however, have experienced the difficulty of maintaining the conflict of three authorities, in a country so remote from the governor-general of Mexico, since the missionaries, though so pious and respectable, are already at open variance with the governor, who, on his part, appears to me to be a worthy military character.

We were desirous of being present at the distributions made at each meal; and as all the days, with this kind of religious community, were exactly alike, by the recital of the proceedings of one, the reader will be acquainted with the history of a whole year.

The Indians, as well as the missionaries, rise with the sun, and immediately go to prayers and mass, which last for an hour. During this time three large boilers are set on the fire for cooking a kind of soup, made of barley meal, the grain of which has been roasted previous to it's being ground. This sort of food, of which the Indians are extremely fond, is called *atole*. They eat it without either butter or salt, and it would certainly to us be a most insipid mess.

Each hut sends for the allowance of all it's inhabitants in a vessel made of the bark of a tree. There is neither confusion nor disorder in the distribution; and when the boilers are nearly emptied, the thicker portion at the bottom is distributed to those children who have said their catechism the best. 1786. Sept.

The time of repast is three quarters of an hour; after which they all go to work, some to till the ground with oxen, some to dig in the garden, while others are employed in domestic occupations, and all under the eye of one or two missionaries.

The women have no other employment than their household affairs, the care of their children, and the roasting and grinding of the corn. This last operation is both tedious and laborious, because they have no other method of breaking the grain than with a roller upon a stone. M. de Langle, who saw this operation, made a present of his mill to the missionaries; and it was difficult to have rendered them a greater service, since four women will now do the work of a hundred; and they will have time to spin the wool of their sheep, and manufacture some coarse cloths. But the missionaries have hitherto been more attentive to their heavenly than their earthly concerns, and have greatly neglected the introduction of the most common arts. They are so austere as to their own comforts, that they have no fire-place in their chambers, though the winter

1786. Sept. is sometimes severe: the greatest anchorites have never lived a more edifying life.*

At noon the bells give notice of the time of dinner. The Indians then quit their work, and send for their allowance in the same vessel as at breakfast. But this second soup is thicker than the former, and contains a mixture of wheat and maize, and pease and beans: the Indians call it *poussole*. They return to work from two to four or five o'clock, when they repair to evening prayer, which continues nearly an hour, and is followed by a distribution of *atole*, the same as at breakfast. These three distributions are sufficient for the subsistence of the greater number of these Indians, and we might perhaps adopt this economical food in years of scarcity, with the addition of some seasoning. The whole art of this cookery consists in roasting the grain before it is reduced to meal. As the Indians have no earthen or metallic vessels for this operation, they perform it in baskets of bark, over a gentle charcoal fire. They turn these vessels with such address and rapidity, that they succeed in causing the grain to swell and burst without burning the basket, though made of so combustible a material; and we can affirm, that our best coffee is far from being roasted with equal skill. It is distributed to them every morning, and the

* Father Firmin de la Suen, president of the missions of New California, is one of the most worthy and respectable men I have ever met with. His mildness, charity, and affection for the Indians, are beyond expression.

slightest embezzlement is punished by the whip; 1786. Sept.
though it seldom happens that they expose themselves to the danger. These punishments are adjudged by Indian magistrates, called *caciques*. There are three in each mission, chosen by the people from among those whom the missionaries have not excluded: to give, however, a proper notion of this magistracy, we must observe, that these caciques are like the overseers of a plantation, passive beings, blind performers of the will of their superiors; and that their principal functions consist in serving as beadles in the church, to maintain order and the appearance of attention. Women are never whipped in public, but in an inclosed and somewhat distant place, that their cries may not excite a too lively compassion, which might cause the men to revolt. The latter, on the contrary, are exposed to the view of all their fellow citizens, that their punishment may serve as an example. They usually ask pardon for their fault, in which case the executioner diminishes the force of his lashes, but the number is always irrevocable.

The rewards are small distributions of grain, of which they make little thin cakes, and bake them on hot wood ashes. On high festivals an allowance of beef is distributed, which many eat raw, particularly the fat, which is considered by them as equally delicious with the finest butter or the most excellent cheese. They skin all animals with the greatest dexterity; and when they are fat they make, like the ravens, a croak-

1786. Sept. ing of pleasure, devouring with their eyes those parts for which they have the greatest avidity.

They are often permitted to hunt and fish for their own benefit; and upon their return they generally make a present to the missionaries of a part of their sport; but they proportion the quantity to what is strictly necessary for their consumption, taking care however to increase it, when they know that their superiors have any visitors or guests. The women raise some poultry about their huts, the eggs of which they give to their children. These fowls are the property of the Indians, as well as their clothes, and other small articles of furniture and implements of hunting. There is no example of theft among them, though the door of their hut consists merely of a bundle of straw, which they place across the entrance when the inhabitants are absent.

These manners may appear patriarchal to some of our readers, who may not reflect, that in these huts there is no article which can excite the avarice of a neighbouring hut. The food of the Indians is secured to them, and they have therefore no other want than that of giving life to beings, who are sure to be as stupid as themselves.

The men in these missions have made greater sacrifices to christianity than the women, because, before it's introduction, they were accustomed to polygamy, and were even in the habit of espousing all the sisters of the same family.

The women, on the contrary, have acquired the right of receiving exclusively the caresses of a single man. I must confess, however, notwithstanding the unanimous report of the missionaries concerning this pretended polygamy, that I am at a loss to conceive how it could have been established in a nation of savages; for the number of men being nearly equal to that of the women, the consequence must have been a forced continence in many individuals, unless conjugal fidelity were less rigorously observed than in the missions, where the holy fathers have constituted themselves guardians of the virtue of the sex. An hour after supper, they take care to secure all the women whose husbands are absent, as well as the young girls above the age of nine years, by locking them up: and during the day they entrust them to the care of elderly women. All these precautions are still inadequate, and we have seen men in the stocks, and women in irons, for having eluded the vigilance of these female Arguses, whose eyes are not sufficient for the complete performance of their office. 1786. Sept.

The converted Indians have preserved all the ancient customs which their new religion does not prohibit: they have the same huts, the same diversions, and the same clothes. The cloathing of the richest consists in a garment of otter's skin, which descends from the waist somewhat lower than the groin. The most indolent have simply a piece of cloth, which the mission supplies, to

1786. Sept. conceal the nudities, and a small cloak of rabbit skin, tied under the chin, which covers their shoulders, and descends to their waist. The rest of their body is absolutely naked, as well as their head. Some of them, however, have straw hats, which are neatly made.

The cloathing of the women is a mantle of deer skin badly tanned. Those of the missions have generally a small corset with sleeves, which, with a small apron of rushes, and a petticoat of deer-skin descending to the middle of the leg, is the whole of their dress. Young girls more than nine years of age have simply a cloth round their waist, and the children of both sexes are entirely naked.

The hair both of men and women is cut to the length of about four or five inches. The Indians of the *rancheries*,* having no instruments of iron, perform this operation with lighted fire-brands. They are likewise in the habit of painting their bodies red, in general, and when they are in mourning, in black. The missionaries have forbidden the first of these paintings; but they are obliged to tolerate the other, because these people are so strongly attached to their friends. When they are called to their remembrance they shed tears, though they may have lost them for a considerable period; and if their name be mentioned by any one, even through inadvertence, they consider it as an offence. The bonds of relationship have less force with them than those

* Name of the independent Indian villages.

of friendship. Children take scarcely any notice of their father. They abandon his hut as soon as they are capable of providing for their subsistence; but they preserve a longer attachment for their mother, who has brought them up with extreme mildness, and has never beaten them, unless when they have shown cowardice in their combats with children of the same age. 1786. Sept.

The old men of the rancheries, who are no longer able to hunt, are supported at the expense of their whole village, and are in general well respected. The independent savages are frequently at war; but the fear of the Spaniards causes them to respect the missions; and this perhaps is not the smallest of the inducements which increase the Christian villages. Their arms are the bow and arrow, which is armed with a flint very skilfully wrought. The bows, which are wood and strung with the tendon of an ox, are very superior to those of the inhabitants of *Port des Français*.

We were assured, that they neither eat their prisoners, nor their enemies slain in war; that nevertheless, when they have vanquished and killed the chiefs, or bravest men, on the field of battle, they devour some small portions, less in token of hatred or vengeance, than as an homage due to their valour, and from the persuasion that this food is calculated to increase their courage. Like the Canadians, they scalp the vanquished, and take out their eyes, which they have the art of preserving from corruption, and which they

1786. Sept. carefully keep as tokens of victory. They burn their dead, and deposit their ashes in morais.

They have two kinds of game, in which they employ their whole leisure: the first, to which they give the name of *takersia*, consists in throwing a small hoop, of three inches in diameter, and causing it to roll in a space of twenty feet square, cleared of grass and surrounded with stakes. The two players hold each a stick, of the thickness of a common cane, and five feet long. This stick they endeavour to strike through the small hoop, while it is in motion. If they succeed, they gain two points; and if the hoop should stop, so as to lie upon the stick, they reckon but one. The game is three. This diversion affords a violent degree of exercise, because the hoop or the stick is always in action.

The other game, named *toussi*, is more tranquil. It is played by four persons, two on each side. Each, in his turn, conceals in one of his hands a piece of wood, while his partner makes a thousand gestures to occupy the attention of the adversaries. It is curious enough to a bystander to see them squatted down opposite each other, keeping the most profound silence, observing the traits of the countenance and the most minute circumstances, which may assist their conjecture as to the hand which conceals the piece of wood. They gain or lose a point accordingly as their guess is right or wrong; and those who gain it have a right to hide in their turn. The game is five points, and the usual stake glass beads, and

with the independent Indians the favours of their women. These Indians have no knowledge of a God, or of a future state, with the exception of some nations to the south, who had a confused notion of this kind before the arrival of the missionaries. They placed their paradise in the middle of the sea, where the elect were to enjoy cool breezes, which never prevail on their burning sands; and they supposed hell to be in the cavities of their mountains. 1786. Sept.

The missionaries, persuaded from their prejudices, and perhaps from their experience, that the reason of these men is scarcely ever developed, which they consider as a just motive for treating them like children, admit only a very small number to the communion. These are the geniuses of the country, who, like Descartes and Newton, would have enlightened their age and countrymen, by teaching them that four and four make eight, which is a calculation beyond the reach of the greatest number of them. The plan pursued by these missionaries is little calculated to remove this state of ignorance, in which every thing is directed to the recompenses of another life; while the most usual arts, not excepting even the surgery of our villages, are not exercised. Many children perish in consequence of ruptures, which the slightest skill would cure; and our surgeons had the pleasure of relieving a small number, and of showing them how to apply the necessary bandages.

It must be confessed, that if the Jesuits were neither more pious nor more charitable than

1786. Sept. these missionaries, they were at least more intelligent and skilful. The immense edifice which they have raised at Paraguay cannot fail to excite admiration; but their ambition and prejudices have afforded matter for the strongest disapprobation, in their system of community of property, so contrary to the progress of civilisation, and which is imitated with too much servility in the missions of California. This government is a true theocracy for the Indians, who believe, that their superiors have immediate and continual communication with God, and that they cause him to descend every day on the altar. By virtue of this opinion, the holy fathers live in the midst of the villages with the greatest security. Their doors are not shut, even in the night, though the history of their mission affords the example of a missionary slain. It is known that this assassination was the consequence of a commotion occasioned by an act of imprudence; for homicide is a very rare crime, even among the independent Indians. It is, however, no otherwise revenged, than by general contempt; but if a man fall beneath the blows of a considerable number, it is concluded, that he deserved his fate, since his conduct produced such a number of enemies.

Northern California, of which the most northerly settlement is that of St. Francisco, in latitude 37° 58′, has no other boundary, according to the opinion of the governor of Monterey, than that of America; and our vessels, by penetrating as far as Mount St. Elias, did not reach it's limits.

To the motives of piety, which have determined Spain to sacrifice large sums for the support of it's presidios and missions, there are at present considerable reasons of state to be added, which may direct the attention of government to this valuable part of America, where the sea-otter skins are as common as in the Aleutian Islands, and those of the other seas frequented by the Russians. 1786. Sept.

We found at Monterey a Spanish commissary, Mr. Vincent Vassadre y Vega, who had brought orders to the governor, enjoining him to collect all the sea-otter skins of his four presidios and the ten missions, of which the government reserves to itself the exclusive commerce. Mr. Fages assured me, that fifty thousand might be collected annually; and as he was well acquainted with the country, he added, that if the China trade could furnish a demand for thirty thousand skins, two or three settlements to the north of San Francesco would soon procure them for the commerce of his nation.

It is perfectly unaccountable that the Spaniards, having so near and so frequent intercourse with China from Manilla, should have been hitherto ignorant of the value of this precious trade of furs.

It is to captain Cook, and the publication of his work, that they are indebted for this dawn of information, which will procure them the greatest advantages. This great man has thus travelled for the benefit of all nations, and his own country derives no greater advantage above others, than the glory of the enterprise and of reckoning him among her sons.

1786, Sept. The sea-otter is an amphibious animal as common along the whole occidental coast of America, from the 28th to the 60th degree of north latitude, as the seal on the coast of Labrador and in Hudson's bay. The Indians, who are by no means so expert seamen as the Esquimaux, and whose boats at Monterey are only made of reeds,* catch them either on shore with snares, or kill them with large sticks, when they find them at a distance from the sea. For this purpose they conceal themselves behind the rocks, this animal being frightened at the least noise, and plunging immediately into the water. Before the present year, the skin of an otter bore no higher value than two hare skins. The Spaniards, never suspecting there could be any demand for them, had not sent any to Europe, and Mexico was too hot a country for them to suppose that this article could be acceptable there.

I am of opinion, that in a few years a great revolution will take place in the commerce of the Russians at Kiatcha, from the difficulty of supporting this competition. From the comparison I have made of the sea-otter skins of Monterey with those of Port des Français, I am inclined to believe, that the skins of the south are rather inferior; but the difference is so small, that I am not absolutely certain of this inferiority, and I doubt whether it may make in the sale a difference of ten per cent. It is almost certain, that the new

* The inhabitants of the missions of Santa Barbara and San Diego have wooden canoes, constructed nearly in the same manner as those of the inhabitants of Mowee, but without out-riggers.

company of Manilla will endeavour to seize this branch of trade; and this would be the most fortunate event which could happen to the Russians, because it is the nature of exclusive privileges to annihilate or at least to paralyse all the branches of commerce and industry, while perfect freedom alone can communicate to both all the activity of which they are susceptible. 1786. Sept.

New California, notwithstanding it's fertility, does not yet possess a single European inhabitant. A few soldiers, who have married Indian women, and either live in the forts, or are scattered in small parties, on public service and the different missions, constitute at present the whole of the Spanish nation in this part of America. If it were at a less distance from Europe, it would be in no respect inferior to Virginia, which lies in the same latitude; but it's proximity to Asia may well compensate for this, and I am convinced that good laws, and particularly freedom of trade, would soon procure it a certain number at least of inhabitants: for the possessions of Spain are so extensive, that it is impossible to suppose, the population can be considerable for a long time to come in any of her colonies. The great number of individuals of both sexes who, from religious principle, have devoted themselves to celibacy, and the invariable policy of the government to admit but one religion, and to employ the most violent means for supporting it, must constantly oppose a new obstacle to every augmentation.

The government of the villages converted to

1786. Sept. Christianity would be more favourable to population, if property and a certain degree of liberty constituted it's basis. Nevertheless, since the establishment of ten different missions of Northern California, the fathers have baptised 7701 Indians of both sexes, and buried only 2388.—But it must be remarked, that this computation does not, like those of our European towns, inform us whether the population increases or diminishes, because they are continually baptising independent Indians: it merely shows, that Chistianity extends itself; and I have already observed, that the affairs of the next world cannot be placed in better hands.

The Franciscan missionaries are almost all Europeans. They have a college, for so they call a convent at Mexico, of which the general of his order in America is the guardian. This house does not depend upon the provincial of the Franciscans of Mexico, but has its superiors in Europe.

The viceroy is at present the sole judge of every dispute between the different missions, which do not acknowledge the authority of the commandant at Monterey. This officer is merely obliged to supply them with military force when they demand it; but as he has a power over all the Indians, and particularly over those of the rancheries, and has moreover the command of all the detachments of cavalry which reside in the missions, these different relations very frequently disturb the harmony between the military and the religious government; but the last possesses

sufficient influence in the mother country in all cases to obtain the ascendency. These affairs were formerly brought before the governor of the inland provinces; but the new viceroy, Don Bernardo Galves, has united all the powers in his own person. 1786. Sept.

Spain allows annually four hundred dollars to each missionary, whose number is fixed at two for a parish, and if there be a supernumerary, he receives no salary. Money is of very little use in a country where nothing can be purchased. Beads are the only money of the Indians. The college of Mexico therefore never sends a single dollar in cash, but the value in effects, such as tapers for the church, chocolate, sugar, oil, wine, and some pieces of cloth, which the missionaries divide into small girdles to cover what decency does not permit the converted Indians to expose. The governor's pay is four thousand dollars; that of his deputy four hundred and fifty; and that of the captain inspector of two hundred and eighty-three horsemen, distributed through the two Californias, two thousand. Each horseman receives two hundred and seventeen; but out of this he is obliged to provide his subsistence, and to furnish himself with a horse, cloathing, arms, and all sorts of necessaries in general. The government, which has horses and cattle, sells to the soldiery both the one and the other. The price of a good horse is eight dollars, and that of an ox, five. The governor has the management of the sales, and at the end of the year he gives an account to

1786. each horseman of the balance which may be due
Sept. to him in money, which he pays with the utmost punctuality.

As the military, of whom there were only eighteen at the presidio, had rendered us many little services, I requested permission to present them with a piece of blue cloth; and I sent the missions coverlets, stuffs, beads, iron tools and implements, and generally all the small effects which might be necessary to them, and which we had not had occasion to distribute to the Indians at Port des Français. The president informed the whole village, that it was a present from their faithful and ancient allies, who professed the same religion as the Spaniards: which so particularly excited their benevolence, that the day after each of them brought us a truss of hay or straw, for the cattle and sheep we were about to send on board. Our gardener gave the missionaries some potatoes of Chili in perfect preservation, which in my opinion was not the least valuable of our presents, and which will certainly thrive in the light but fertile soil of the environs of Monterey.

From the day of our arrival we were busily employed in supplying ourselves with wood and water; and we were allowed to cut the former as near as possible to the place of our landing. Our botanists on their part did not lose a moment in adding to their collection of plants; but the season was very unfavourable, the heat of the summer having entirely dried them up, and their seed being scattered on the ground. Those

which M. Collignon could distinguish were the common wormwood, sea wormwood, the male southernwood, mugwort, Mexican tea, Canadian golden rod, the Italian starwort, millefoil, deadly nightshade, spurry, and water mint. The gardens of the governor and of the missions were filled with an infinity of plants for culinary use, which were furnished us in such abundance, that our people had in no country been better supplied with vegetables. 1786. Sept.

Our lithologists were equally zealous with our botanists, but they were still less fortunate. They met with nothing on the mountains, in the ravines, and on the shore, but a light argillaceous stone very easily decomposed, and which is a species of marl. They found likewise blocks of granite, the veins of which contained crystallised feld spar; some rounded fragments of porphyry and jasper; but they observed no trace of metal. Shells are not more abundant, with the exception of some superb heliotes, of which the pearl is of the most beautiful orient. They are even nine inches long and four in breadth. The other shells are not worth enumerating.* The eastern and southern coast of old California are much richer in this part of natural history. They afford oysters containing pearls equal in beauty and magnitude to those of Ceylon, or the Persian Gulph. These would also be an article of great value and certain sale at China; but it

* There are also small oviles, whelks, and different sea snails, but they are not at all curious.

1786. Sept. is impossible for the Spaniards to give activity to all the means of industry which their country furnishes.

22. On the 22d in the evening every thing was embarked, and we took leave of the governor and missionaries. We carried away with us as large a store of provisions as when we departed from Conception. The whole stock of poultry of Mr. Fages and the missionaries had been transferred into our hencoops, and we were supplied with corn, beans, and pease in such plenty, that they had left themselves scarcely more than was strictly necessary. They refused for a long time to receive any payment, and yielded only to our pressing offers, in consequence of the representation we made to them, that they were the administrators and not the proprietors of the stores of the missions.

23. On the 23d, the wind was contrary, and in the
24. morning of the 24th, we set sail with a breeze from the west. Don Estevan Martinez had regularly come on board at day-break, and his long-boat and crew were constantly at our disposal, and had rendered us every assistance. Indeed I can but feebly express the gratitude we owe him for this estimable conduct, as well as Mr. Vincent Vassadre y Vega, a young man of talents and merit, who was on the point of repairing to China, to conclude a treaty relative to the trade of otter skins.

CHAPTER XII.

Astronomical Observations—Comparison of the Results obtained by the Distances of the Sun and Moon and our Timekeepers, which have served as the Basis of our Chart of the American Coast—Reasons for thinking that our Work is intitled to the Confidence of Navigators—Vocabulary of the Language of the different Nations in the Neighbourhood of Monterey, with Remarks on their Pronunciation.

WHILE our people were employed in collecting the necessary supply of wood and water, M. Dagelet went on shore with his quadrant, for the purpose of determining the latitude of Monterey with the greatest precision. He regretted, that circumstances did not permit me to remain a sufficient time to resume the comparison of the rate of our timekeepers. The theft of the book of observations by the savages of Port des Français had occasioned some little uncertainty concerning the daily loss of N° 19, by the help of which we had determined all the points of the American coast. This astronomer was even of opinion, that he ought to reject the comparisons made upon Cenotaph Island, and gave the pre- 1786. Sept.

1786. Sept. ference to those of the bay of Talcaguana in Chili, though too old perhaps to deserve an entire confidence. But it must not be overlooked, that we every day compared the result of the longitude given by the time-keeper, with that obtained from observations of lunar distances made on board each frigate, and that the perfect and constant agreement of these results leaves no doubt as to the accuracy of those on which we have fixed.

As persons who are minute in their researches may be desirous of knowing the limits of error, of which the determinations of the longitude at sea, deduced from observations of lunar distances, may be susceptible, it will not be improper to give some account of them.

Theory, assisted by a long course of observations, has hitherto never afforded tables of the moon's motion that are strictly accurate. Nevertheless, considering the degree of precision to which these tables have already arrived, this first source of error cannot leave an uncertainty of more than 40″ or 50″ of time, at the most, and usually not more than 30″, which answer only to a quarter of a degree of longitude: for the mean motion of the moon with regard to the sun is half a minute of a degree for each minute of time, and the minute of time answers to a quarter of a degree of longitude. Whence it follows, that the longitudes deduced from the comparison of the distances observed at sea with the distances calculated for the same periods, and for a determi-

nate meridian, cannot be affected by the error of the tables, if there be an error, to a greater extent than a quarter of a degree in most cases, while it will often be less. 1786. Sept.

The second source of error is that which arises from the imperfection of the instruments, and the want of accuracy or skill in the observer: but the difference here cannot be ascertained with the same precision as that which results from the error of the tables.

With regard to octants and sextants, the limit of error depends, as to the instrument, on the accuracy of the divisions, and as to the observer, first, on the difficulty of verifying the point of 0, and secondly, on that of well observing the contact of the two luminaries, which depends on the excellence of sight of the observer, and his skill and experience.

The reflecting circles have no cause of error in common with sextants and octants, but the difficulty of the observation of the contacts; while they have many advantages over them, which renders their use more certain. The principal of these is, that the error to be feared in the verification is in reality destroyed, because the observations being successively made in two directions, to the right and the left, this verification may be dispensed with. As to the inaccuracy of the divisions, it is reduced at pleasure by repeating the observations a greater or less number of times: and it depends only on the patience of the observer, whether the error arising from

nate meridian, cannot be affected by the error of the tables, if there be an error, to a greater extent than a quarter of a degree in most cases, while it will often be less. 1786. Sept.

The second source of error is that which arises from the imperfection of the instruments, and the want of accuracy or skill in the observer: but the difference here cannot be ascertained with the same precision as that which results from the error of the tables.

With regard to octants and sextants, the limit of error depends, as to the instrument, on the accuracy of the divisions, and as to the observer, first, on the difficulty of verifying the point of 0, and secondly, on that of well observing the contact of the two luminaries, which depends on the excellence of sight of the observer, and his skill and experience.

The reflecting circles have no cause of error in common with sextants and octants, but the difficulty of the observation of the contacts; while they have many advantages over them, which renders their use more certain. The principal of these is, that the error to be feared in the verification is in reality destroyed, because the observations being successively made in two directions, to the right and the left, this verification may be dispensed with. As to the inaccuracy of the divisions, it is reduced at pleasure by repeating the observations a greater or less number of times: and it depends only on the patience of the observer, whether the error arising from

1786. Sept. it shall not at last be considered as nothing.* After having thus established the limits of error, we are warranted to conclude, that our mean result, for the determination of the longitude by lunar distances, could not in any case have been affected by an error of more than a quarter of a degree; for having constantly employed the reflecting circle; having never neglected in each operation, to repeat the observation as often as circumstances would permit, and the observers being also perfectly experienced, we had nothing to fear but the trivial error, which might arise from the imperfection of the lunar tables.

We could therefore employ with certainty the results of these operations, repeated almost daily, to ascertain the regularity of the timekeeper by comparing them with the result of this instrument. We likewise placed some confidence, and with reason, in the combination and constant agreement of the several results of observations made in different circumstances, and separately, as I have remarked, on board each vessel. And these observations, serving mutually to confirn each other, have afforded a common and incontestable proof of the steady regularity of the timekeeper, N° 19, by the assistance of which we have determined the longitudes of all the points of the American coast, that were explored

* The sextants we used were made by the English artist Ramsden. The reflecting circles, invented by M. de Borda, were executed by Lenoir, a French mathematical and astronomical instrument-maker.

by us. The precautions of every kind, which we have multiplied and accumulated, give me the assurance, that our determinations have acquired a degree of precision, which entitles them to the confidence both of navigators and the learned. 1786. Sept.

The utility of timekeepers at sea is so generally acknowledged, and so clearly explained in the Voyage of M. de Fleurieu, that we shall speak of the advantages they afforded us, with no other view than to show how far M. Berthoud has exceeded the limits assigned to his art; since, after a period of eighteen months, his timekeepers N° 18 and 19 have afforded results equally satisfactory with those at our departure, and have permitted us to determine our exact position in longitude several times a day, from which M. Bernizet has drawn the chart of the coast of America.*

This chart undoubtedly leaves much to be desired with regard to detail: but we can answer for the principal points of the coast, which were determined with precision, as well as for it's direction. It appeared in general to be safe, for we saw no breakers in the offing. There may

* I must remark, that the business of astronomical observations and charts was common to both vessels; and as M. Monge had quitted us at Teneriffe, M. de Langle, who is himself a very good astronomer, remained charged with the direction of this labour, in which he was assisted by Messrs. Vaujuas, Lauriston, and Blondelas. The latter also drew part of the charts from the observations that were put into his hands.

1786. Sept. however be shoals near the coast, but we have no reason to presume, that this is the case.

M. de Lamanon, by whom the following notes were written, is of opinion, that it is extremely difficult to give exact vocabularies of the idioms of the different nations in the vicinity of Monterey; and he can only answer for the pains and care he has taken to avoid the adoption of error. He would probably have placed little dependence on his own observations, if he had not found at the mission, where he passed four days, two Indians, who, from their acquaintance with the Spanish language, were of the greatest assistance to him.

I must remark from his observations, that there is no country perhaps where the different idioms are so multiplied as in North California. The numerous hordes which divide it, though very near to one another, live isolated, and have each a particular language. The difficulty of learning them all is some consolation to the missionaries for their inability to understand any of them: and they are obliged for their sermons and death-bed exhortations to make use of an interpreter.

Monterey, and the mission of San Carlos, which is dependent upon it, comprehend the country of the Achastlians and the Ecclemachs. Of the two languages of these people, who are partly united in the same mission, would soon be compounded a third, if the Christian Indians should cease to communicate with those of the

rancheries. The language of the Achastlians is adapted to the feeble developement of their understanding. As they have few abstract ideas, they have few words to express them. They did not appear to us to distinguish even all the species of animals by different names. They give the same name, *ouakache*, both to toads and frogs, and they make no difference in the appellations of vegetables which are employed in the same uses. Their epithets to qualify moral objects are mostly borrowed from the sense of taste, which is the sense they are most delighted to gratify. Thus the word *missich* denotes a good man, and savoury food, and the word *keches* a bad man, and meat that is tainted. 1786. Sept.

They distinguish the plural from the singular; they conjugate some tenses of verbs, but they have no declensions. Their substantives are much more numerous than their adjectives; and they never employ the labials FB, nor the letter X. They have the *chr*, like the inhabitants of Port des Français; as *chrskonder*, bird; *chruk*, hut; but their pronunciation is in general softer.

The dipthong *ou* is found in more than half their words; *chouroui*, to sing; *touroun*, the skin; *touours*, the nails; and the most common initial consonants are T and K. The terminations frequently vary.

They make use of their fingers to count as far as ten; but few of them can do this from memory, and independently of every external

1786. Sept. sign. If they wish to express the number which succeeds eight, they begin by counting with their fingers one, two, &c. and stop when they have pronounced nine. Without this help they can seldom reach as far as five.

Their numerical terms are,

One — —	*moukala.*
Two — — —	*outis.*
Three — —	*capes.*
Four — — —	*outiti.*
Five — —	*is.*
Six — — —	*etesake.*
Seven — —	*kaleis.*
Eight — — —	*oulousmasakhen.*
Nine — —	*pak.*
Ten — — —	*tonta.*

The country of the Ecclemachs extends more than twenty leagues to the eastward of Monterey. The language of it's inhabitants is totally different from those of all it's neighbours, and has even a greater resemblance to the languages of Europe than to those of America. This grammatical phenomenon, the most curious in this respect which has yet been observed on this continent, will perhaps be interesting to such of the learned who endeavour, from the comparison of languages, to elucidate the history of the transplanting of nations. It appears, that the languages of America have a distinct character, which absolutely separates them from those of the ancient continent. By comparing them with those of Brasil, Chili, and part of California, as

well as with the numerous vocabularies given by different travellers, we find that in general the American languages are deficient in several labial letters, and particularly the letter F, which the Ecclemachs employ and pronounce like the Europeans. The idiom of this nation is also richer than that of the other tribes of California, though it cannot be compared with the languages of civilised nations. If these circumstances should lead to the conclusion, that the Ecclemachs are strangers in this part of America, it must be admitted, at least, that they have resided here for a considerable period: for they differ neither in colour, in features, nor in their general make and external appearance, from the rest of the nations in this part of the continent. 1786. Sept.

Their numerical terms are,

One — — —	*pek.*
Two — — —	*oulach.*
Three — — —	*oullef.*
Four — —	*amniahon.*
Five — — —	*pemaca.*
Six — — —	*pekoulana.*
Seven — — —	*houlakoalano.*
Eight — —	*koulefala.*
Nine — — —	*kamakoualane.*
Ten — — —	*tomoïla.*
Friend — — —	*nigefech.*
Bow — — —	*pagounach.*
Beard — — —	*iscotre.*

1786. Sept.

To dance — —	*mefpa.*
Teeth — — —	*aour.*
Seal — — —	*opopabos.*
No — — —	*maal.*
Yes — — —	*ike.*
Father — — —	*aoi.*
Mother — —	*atzia.*
Star — — —	*aimoulas.*
Night — —	*toumanes.*