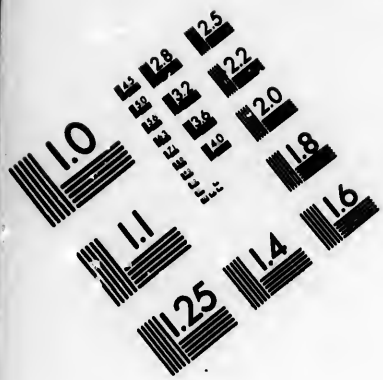

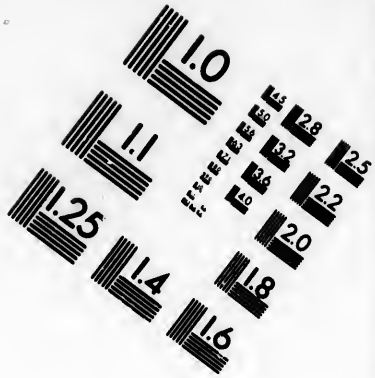

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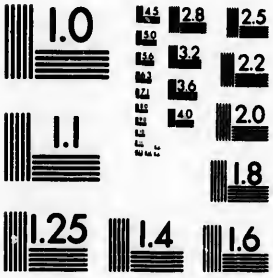

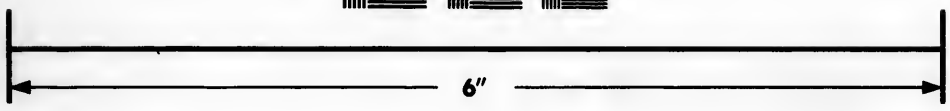

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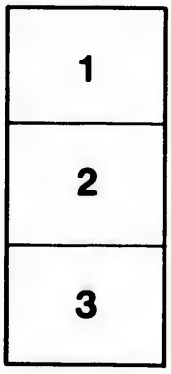

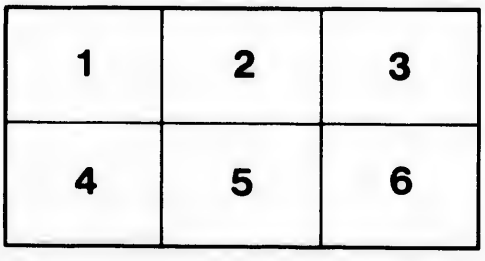

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JOHN FRANCIS GALAUP DE LA PÉROUSE.

Published June 20.th 1798, by J. Stockdale.

THE VOYAGE
OF
LA PÉROUSE
ROUND THE WORLD,
IN THE YEARS 1785, 1786, 1787, AND 1788,
WITH THE NAUTICAL TABLES.

Arranged by M. L. A. MILET MUREAU,
Inſpector of Fortifications and Member of ſeveral literary Societies at Paris.

TO WHICH IS PREFIXED,
NARRATIVE OF AN INTERESTING
VOYAGE FROM MANILLA TO ST. BLAISE.

AND ANNEXED,
TRAVELS OVER THE CONTINENT,
With the Diſpatches of La Pérouſe in 1787 and 1788,
BY M. DE LESSEPS.

TRANSLATED FROM THE FRENCH.
Illuſtrated with Fifty-one Plates.

IN TWO VOLUMES.

VOL. I.

London:
PRINTED FOR JOHN STOCKDALE, PICCADILLY.

1798.

THE

TRANSLATOR's PREFACE.

NAVIGATION, the moſt important bond of the great ſociety of mankind, has in the preſent age been advanced nearly to perfection. It has been employed for purpoſes the moſt honourable to its patrons, to its conductors, and to human nature, and its narratives have excited a more univerſal intereſt than any other branch of literature. It has perfected the hiſtory of man, united the extremities of the earth in the mutual intercourſe of peaceful commerce, and notwithſtanding the temporary ſtorms of revolution, has characteriſed the preſent century as its peculiar æra.

Engliſhmen, who have ſo much to boaſt among contending nations, will proudly remember that Cook ſtands in the higheſt rank both as a navigator, and a benefactor of his ſpecies: while France, our conſtant competitor, whether in diſcovery, in commerce, or in the arts, has attempted to rival us even at the extremity of the

 globe.

globe. With that ſpirit of emulative ambition which has ever marked her character, ſhe planned the voyage detailed in the following pages; ſhe conſigned to the perils of the ocean men of the deepeſt ſcience, and moſt brilliant talents in France, and her veſſels ſailed with an auſpicious promiſe of the happieſt ſucceſs. Their ill fated end is now but too ſtrongly confirmed. Europe will deplore that an expedition, which, like that of Cook, may be called a circumnavigation of charity and benevolence, ſhould ſo fatally terminate in the deſtruction of all who embarked in it, and of a commander who ſeemed to vie with his great predeceſſor in the virtues and benevolences of a wiſe and prudent chief. Honourable and candid in his rivalſhip, he ſeems to exult in beſtowing a juſt tribute of applauſe on him, whom he conſiders as his archetype, while his own narrative is modeſt perſpicuous, intereſting, and important.

To a commercial nation, it is particularly deſirable to receive the earlieſt and moſt accurate information of every geographical diſcovery. But while we regret that ſcience and curioſity have been ſo long ungratified, and that the compiler of the narrative was not from among the actors in theſe novel ſcenes, few of whom eſcaped the general cataſtrophe; it is ſome conſolation that the original journal, as the Editor aſſures us,

is

is moſt faithfully adhered to, without ever deviating from the ſenſe and meaning of the narrator. M. Millet Mureau appears to have juſtly conceived the duties of the undertaking, and the execution does honour to his taſte and judgment. Verſed in the accounts of former diſcoveries, and the ſciences allied to navigation, he has illuſtrated the work by many valuable notes, for which, however, he is often indebted to our countrymen Cook, Dixon, Portlock and others; and when he ventures to differ from the opinion of his author, ſubmits his own with a candour entitled to applauſe.

In one inſtance he has deviated from his accuſtomed liberality, in an unfounded ſuſpicion of the veracity of Hearn. But this he retracts in a preliminary diſcourſe *. He conſtantly profeſſes rather to collect materials for the ſpeculation and enquiry of others, than to form ſyſtems for himſelf, a practice to which he declares himſelf an enemy.

* Vide page xxxii. Where, as if it was his fate to wreak all his calumny on an opponent invulnerably ſecure in the armour of integrity, honour, and fidelity, he aims an invidious attack at that gentleman, which the publication of his narrative previous to the following pages, has rendered equally invalid with the former accuſation, and muſt again expoſe him to the ſame humiliating recantation.

In reading the narratives of thoſe who have viſited ſavage nations, it is impoſſible to avoid contemplating with ſelf-exultation, the ſuperiority of civilized Man over a *ſtate of nature*, which if it means any thing, ſignifies a ſtate of ignorance, where cunning and treachery almoſt univerſally prevail. The mind is ſtrengthened by the cultivation of the arts and ſciences; Man in ſociety alone perceives the mutual advantage of reciprocal good faith, and virtue flouriſhes under the banners of truth and general utility: while the ignorance of the Indian, which renders his pleaſures uncertain and tranſient, is compenſated by no one ſuperiority of enjoyment, either mental or corporeal: nor does the moſt finiſhed picture of ſavage life exceed a mere abſence of care, or that inactive unintereſting tranquillity which civilization alone can render ſecure.

To expatiate further on the utility of this expedition is unneceſſary. The Public intereſt and curioſity, which ever anticipate works of this nature, will not have been diminiſhed by the unhappy fate of La Pérouſe, his paſſengers and crews.

Accuracy being no leſs important in a tranſlator than veracity in a traveller, the Engliſh Editor has been ſolicitous rather to convey the true meaning of his author, than to decorate his language

guage with graces foreign to the original. This principle, itſelf ſufficiently obvious, acquires additional force from La Pérouſe's expreſs deſire; he wiſhed, that to avoid ſacrificing ſenſe to ſound, as might happen in the unpoliſhed phraſes of the ſea, and other technical terms, his narration, ſhould it be publiſhed without his inſpection, might be committed to the care rather of a ſeaman than a man of letters.

With this ſimple declaration the Tranſlator would have ſubmitted himſelf to the Public, had not a competitor appeared, whoſe agents, with the petulance of ungenerous rivalſhip, have miſrepreſented his deſign, and accuſed him of mutilating the original. Had it been poſſible ſooner to complete the work, this calumny could not have been ſupported for a moment; and the Author only laments, ſincerely laments, that the Public in general have ſeldom the inclination or the opportunity to enter into a compariſon of the ſeparate merits of thoſe who appear as candidates for their favour. He is therefore unwillingly compelled to urge his claim to their protection, by ſtating his deſign and plan in the execution of the work.

Conſidering the Narrative and Tables of the firſt importance, particularly to the man of ſcience and the navigator, he has given theſe, together

with all the memoirs and correſpondence in a *complete and accurate* tranſlation. The tables in particular muſt be viewed as the guide of future navigators, the clue to conduct them through the labyrinths of the South Sea Iſlands, the beacon to warn them from rocks, and ſhoals, and breakers, and to direct their courſe through the miſts of the ocean. To have omitted theſe, or to have neglected their accuracy, would have been to endanger the lives of others, and render the labour of navigators fruitleſs. Of the preliminary papers, however, which are by no means equally important or intereſting, it appeared more deſirable for every claſs of readers to peruſe, at moſt a copious abridgment, compriſing every uſeful information without the circumlocution and redundancy, ſo frequent in official papers. To no Engliſhman could a detail of theſe minutiæ, or voluminous catalogues of French names compoſing the crews of the veſſels have been uſeful. It is with no ſmall ſatisfaction that the Editor has availed himſelf of the vacancy this ſuperfluous matter has afforded, to introduce a comprehenſive abridgment of another expedition, that of M. de Leſſeps over-land to Kamtſchatka, which is no leſs intereſting in itſelf than by its connection with that of La Pérouſe, of the narrative of whoſe voyage it ſeems

to

to form a part. A full and accurate tranſlation is alſo given of the voyage of the Spaniſh navigator Maurillo; and the whole illuſtrated by additional notes of the Tranſlator.

Of the Engravings, which are numerous, little need be ſaid. They are eaſily compared, and ſcarcely need challenge compariſon to obtain the moſt decided preference. In the conditions of publication *forty* plates are promiſed, but the encouragement ſhewn to the work during its progreſs, has induced the Publiſher to encreaſe their number to *fifty-one*.

It muſt be noticed, however, that many of the original drawings having arrived in France without correſponding deſcriptions, are ſo publiſhed; the French Editor having only ventured to add an account of a plant from Chili, written by M. Ventinat. In one place in particular the figures have been numbered, though unaccompanied by any reference in the work.

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For placing the Letter-Preſs and Plates.

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Decrees of the Aſſembly, and Preliminary Inſtructions.
Narrative of an intereſting Voyage from Manilla to Saint Blaiſe.
Voyage round the World.

VOL. II.

Voyage round the World.
Excurſion to Teneriffe, Supplementary Papers, &c.
Tables ſhewing the Courſe of the Bouſſole and Aſtrolabe.
Travels over the Continent.

The Plates to be placed in each Volume according to the Liſt in Vol. I. with Silver Paper between each.

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THE COM-

THE

COMPILER's PREFACE.

THE Public, inured to the painful impreſſion which muſt have been produced by the loſs of the two veſſels employed in the unfortunate expedition committed to the charge of la Pérouſe, will be ſurprized at the publication of the journal of his voyage. The decree of the Conſtituent Aſſembly, which has ordered the impreſſion of the charts and memoirs tranſmitted by that navigator, muſt, however, have announced that we were not entirely deprived of the fruit of that expedition. His ſagacity engaged him not only to ſeize, but to ſeek for opportunities of ſending his journals to Europe. It were to be wiſhed that the ſelf-love of the learned gentlemen, embarked with him, had permitted them, in like manner, to forego the fruit of their labours; we ſhould not have had to regret the almoſt total loſs of them.

La Pérouſe, occupied with the difficult and numerous details, which the command of an expedition as important as perilous rendered neceſſary, conſtrained at every ſtep to exerciſe judg-

ment and foreſight, and conſequently to modify his ideas conformably to circumſtances, could not poſſibly collect in their order, nor digeſt methodically, the materials which were one day to enable him to compoſe the hiſtory of his voyage. Thoſe materials muſt have appeared ſtill more deſtitute of form in the eyes of a Compiler who had no part in that enterprize.

As nothing that can ſerve to promote the progreſs of the human mind ought to be neglected in voyages of diſcovery, perſons of ſcience and artiſts conſtitute an eſſential part of ſuch expeditions: on their return, each one arranges his own materials, and gives to the particular object in which he was employed that degree of perfection of which he believes it to be ſuſceptible: from a judicious union of theſe different parts a complete relation is obtained, in which the particulars appear in connection, and every thing is in its proper place. In the preſent caſe, through a fatality which has no example, our new Argonauts have all periſhed; and I am called upon alone to ſupply, by collecting what could be ſaved from the ſhipwreck, the true and energetic touch of navigators, who would not have ſaid a word but what conſiſted with their perſonal experience.

In complying, not without reluctance, with the

the ſolicitations which induced me to engage in this painful though honourable undertaking, it was impoſſible for me to overlook the difficulties which I had to encounter in a work, all the parts of which no human faculties could equally embrace.

The Public will undoubtedly regret, with me, that the ex-marine-miniſter, Fleurieu, now a member of the National Inſtitute and of the Board of Longitude, a ſcholar of rare and diſtinguiſhed merit, who at firſt expreſſed a ſtrong inclination to undertake himſelf the compilation of this work, has been obliged by circumſtances to abandon his deſign.

The ſame intereſt which induced me to manifeſt, from the tribune of the Conſtituent Aſſembly, the moſt ardent zeal for the publication of this voyage, for the benefit of the reſpectable widow of la Pérouſe, prompted me to direct the choice of government to a perſon poſſeſſed of maritime talents capable of replacing the gentleman who had been firſt appointed to the taſk: but France had already loſt, in a great meaſure, the moſt diſtinguiſhed of her naval officers; the reſt were fully employed, or had voluntarily retired. The miniſter could ſelect only one who had at leaſt made a ſtudy of the mathematical ſciences and of phyſics, the eſſential baſis of ſuch

a work. The choice of a man poſſeſſed, in a ſuperior degree, of thoſe ſciences was beſides conformable to the intention of la Pérouſe himſelf; for he wrote to one of his friends in words nearly to this effect: "Should my journal be ſent to "the preſs before my return, let care be taken "not to commit the compilation of it to a man "of letters: for he will either take upon him to "ſacrifice to an agreeable turn of expreſſion the "proper term, which may appear to him harſh "and barbarous, but which the ſeaman and the "man of ſcience would prefer, and will in vain "look for; or elſe, putting aſide all the nautical "and aſtronomical details, and deſirous of pre-"ſenting to the world an intereſting romance "merely, he will commit, through want of that "kind of knowledge which his education may "not have permitted him to acquire, errors "which ſhall prove fatal to my ſucceſſors: but "ſelect a compiler well verſed in mathematical "ſcience, one who is a maſter of calculation, "one capable of combining my data with thoſe "of other navigators, of rectifying the miſtakes "which may have eſcaped me, without making "others of his own. Such a compiler will go "to the bottom of the ſubject; he will ſuppreſs "nothing eſſential; he will preſent the techni-"cal details, in the blunt and rough, but conciſe "ſtile,

" ſtile, of a ſeaman; and he will well diſcharge " the truſt repoſed in him by ſupplying my de- " fects, and by publiſhing the work ſuch as I " myſelf would have wiſhed to make it."

Having made this wiſh of the author my conſtant rule, I adviſe that claſs of readers who have amuſement for their ſole object to proceed no farther; I have not laboured for them, but only for the ſeaman and the man of ſcience. I have endeavoured, in a work whoſe ſubſtance ought to have a preference to the form, and in which fidelity as to facts and exactneſs of expreſſion are the moſt important qualities, to be clear and preciſe; I have made no ſacrifice to grace at the expence of truth. This acknowledgement is all the apology I make, at the ſame time that it ſolicits the indulgence of the reader.

In this view I have religiouſly reſpected the character of ſtyle employed by each author, ſimply adapting its forms to the received ſtandard of language: but when any idea ſtruck me which could ſerve to connect others, an expreſſion which might complete an image, render it more prominent, or give to the phraſeology more harmony, without altering the ſenſe, I thought myſelf at liberty to employ it.

The work which is now preſented would undoubtedly have been much more valuable, had

it proceeded from the pen of the ex-miniſter, Fleurieu, enriched as it muſt have been with his various and profound literature: I am bound at the ſame time to declare, that I have conſulted him whenever I found myſelf in doubt; and I have ever found in him that complaiſance and that modeſty which are the inſeparable attendants of real ſcience and talents.

If to collect, to diſpoſe, to digeſt in a proper manner, all the parts of ſuch a work, was a difficult undertaking, the details relative to its publication, the pains, the reſearches, the exertions of every kind, which the moſt indefatigable zeal alone could have ſupported, and the delays neceſſarily occaſioned by unforeſeen accidents, ſeemed to render it impracticable.

The impreſſion had been decreed in 1791, and no commencement was made in 1793, the æra when the labour devolved on me. A paper currency continually decreaſing in value, diſſolved the engagements made with artiſts, and with undertakers in every department, almoſt as ſoon as formed, or induced them to oppoſe to my efforts a moſt diſcouraging indolence, which formed its calculation on the proſpect of a more fortunate futurity; an opinion, bordering on delirium, which then produced a forced accommodation to the times, in contradiction

diction to the truth of hiſtory, of the denominations, the uſages of very different times, laid me under the neceſſity, in this reſpect, of remaining paſſive for more than a year; finally a new paper money, and embarraſſment in the public finances, when gold and ſilver again appeared in circulation: theſe have been the phyſical and moral cauſes of the delay to which I have been forced to ſubmit.

In order to enable me to conciliate the difficulties of compilation, ariſing out of the difficulties of the moment, it had been powerfully recommended to me to write the hiſtory of this voyage in the third perſon. By this means tranſformed into an hiſtorian, and appropriating to myſelf the materials intruſted to me, I removed the navigator to a diſtance, that I might place myſelf between the reader and him. This propoſal has not ſeduced my vanity; I have ſacrificed it to the intereſt which always inſpires the man who relates what he has felt, who deſcribes the painful ſituations through which he has paſſed, and renders you the aſſociate of his pleaſures as well as of his diſtreſſes.

If circumſtances have involved me in fetters and obſtacles during the progreſs of my labour, the reſult will at leaſt demonſtrate that Government has not ceaſed to protect the arts and

ſciences through the whole courſe of the moſt aſtoniſhing of revolutions, which has excited againſt it a war as general as oppreſſive.

I have explained the nature and difficulties of the undertaking; it is now incumbent on me to ſay ſomething reſpecting the form of the work, of its diſtribution, and of the care employed in the execution in every material point.

The title of *Voyage round the World* which I have given it, though not in ſtrictneſs of ſpeech due to it till the return of la Pérouſe into one of our French ports, will aſſuredly not be diſputed, as we may conſider a voyage round the world to be completed, when, taking his departure from Europe, the navigator has arrived in China after doubling Cape Horn and croſſing the South Sea. Beſides, have not our navigators furniſhed, during the year of naval reſearch which followed their arrival in China, a career much longer, more brilliant and more perilous, than that of ſimply their return to Europe?

The work, conſiſting of four volumes in octavo, and of an Atlas in quarto *, is divided in the following manner:

The firſt volume contains all the preliminary

* The Paris edition, from whence the plates of this tranſlation are engraved, is four vols. 4to. and a folio volume of plates.

pieces

pieces relative to the expedition; I have only added to it the tranſlation of a Spaniſh voyage, the manuſcript copy of which has been tranſmitted by la Pérouſe, and which I could place no where elſe without rendering the volumes of a ſize too unequal.

A celebrated author reſcued from oblivion the magnanimous ſelf-ſacrifice of d'Aſſas, who devoted his own life to ſave the French army, calling aloud, *Here am I, Auvergne, that is the enemy.* The Society of Natural Hiſtory at Paris had the merit of fixing the attention of the repreſentatives of the nation on the expedition of la Pérouſe, by the petition which they preſented the 22d of January 1791. The National Aſſembly delayed not a moment to take it into conſideration, however important the other ſubjects of deliberation in which they were engaged.

The two decrees which were the reſult of this, as honourable for the Aſſembly as for the perſons who were the object of them, are placed at the head of the work. They breathe humanity and ſenſibility, and will announce for ever, to every one who ſhall form the reſolution of walking in the footſteps of la Pérouſe: "When thou ſhalt "have performed thy career through the quick-"ſands and dangers of every kind which ſurround "thee, thou mayeſt reſt aſſured, ſhouldſt thou "fall

" fall by the way, that a grateful country will " honourably enrol thy name in the temple of " Fame."

I have not reſtricted myſelf to the practice of preſerving the names of only the officers and ſcientific men employed in ſimilar expeditions: the publication of an exact liſt of the ſhips' crews appeared to me to be an act more conformable to juſtice and to the ſpirit of the French government; and I farther thought that this regiſter might be henceforward the only mortuary extract which the families of our unfortunate navigators could produce.

The inſtructions and the geographical notes which follow, for which I am indebted to the exminiſter of the marine, Fleurieu, are a model too precious to be with-held from the public eye: they conſtitute beſides the only reply that I mean to give to a note of George Forſter, which has a tendency to diſcredit the motives purely relative to the advancement of the ſciences, which determined this expedition. It fills me with regret to think that a man whom I eſteem ſhould have expreſſed himſelf thus in his *Hiſtorical and Pictureſque Tour along the Banks of the Rhine*, vol. i. pag. 311, of the French tranſlation.

" At the period when the intereſting and ill-" fated la Pérouſe took his departure to make " new

" new conquests for commerce and philosophy, " a minister presented to the Council a memorial " respecting the incalculable advantages of that " enterprize. This memorial, though a long " one, was read with avidity; nevertheless it con- " tained but a single idea, and here it is: *Would* " *you wish, sire,* said the minister, *to divert the at-* " *tention of your subjects from that dangerous an-* " *glomania, from that passion for liberty, the de-* " *clared enemy of peace and good order; amuse* " *them with new ideas, deceive their hours of leisure* " *by images, whose poignant variety may furnish* " *aliment to their frivolity. It were much better* " *that they should employ themselves in contemplat-* " *ing the ridiculous tricks of a Chinese monkey, than* " *that they should persist in the present fashion of* " *running mad after the horses and the philosophers* " *of England.*"

The second and third volumes comprehend the journal of the totality of the voyage, and tables of the track of the two frigates, in which is to be found the result of the astronomical and meteorological observations.

We stand indebted to the progress made in astronomy for the means of determining, at present, the longitude at sea to a high degree of precision. To announce that the astronomer Dagelet, a member of the Academy of Sciences, undertook

dertook the ſuperintendance of this part of the labour, is to inſpire the moſt complete confidence reſpecting its exactneſs, and that of the tables and charts which reſult from it.

If the journal does not in every point coincide with the tables of the ſhip's track and with the charts, it ariſes from the impoſſibility of delaying the impreſſion of the journal, till they were completely verified. At any rate theſe differences are neither frequent nor conſiderable; when they occur, the preference ought to be given to the tables, and eſpecially to the charts, which were executed under the direction of the firſt hydrographer of the marine, Buache, a member of the National Inſtitute and of the Board of Longitude. I am bound here to acknowledge, with particular reſpect, the ſolicitude which that gentleman has diſcovered to ſupport me in this important part of my engagement.

Through the whole courſe of the work, the longitudes, which are indicated by no particular meridian, are reckoned from that of Paris.

I have endeavoured to be exact in the orthography of proper names of perſons and places; but theſe laſt being as various in the relations, as the languages of their authors are different; it was neceſſary to adopt, in tranſcribing ſuch words indicative and merely of convention, the orthography

orthography moſt generally received, by combining it with the idiom of the country.

The fourth volume is compoſed of memoirs, or detached pieces tranſmitted to government by the ſcientific gentlemen employed in the expedition, and of thoſe which I was able to collect. I had, for this purpoſe, made application to the late Academy of Sciences, and to individuals whom I ſuſpected to have kept up a correſpondence with the co-operators of la Pérouſe, in order to obtain ſuch memoirs as they might have communicated: but this labour was fruitleſs; I could procure only thoſe of which I found ſome ſcattered fragments in the journal of phyſicks, and I was at pains to place them together in this volume.

I have added, in the courſe of the work, a variety of notes, wherever I thought they could be uſeful; and I have diſtinguiſhed them by the initial letters of the words, COMPILER'S NOTE.*

In order to facilitate reſearch, I have terminated the work by a general table of the ſubjects contained in it.

The number, the magnitude and the beauty of the engravings and charts, made me determine to give them together in a ſeparate atlas, and of a larger ſize. I thought that a national work, executed with ſo much care, well merited ſuch a

* In this tranſlation, by the words—*French Editor.*

preſervative

preſervative precaution. If it is not generally approved, I have this to ſay for myſelf, that ſuch is the form of the beautiful edition of *Cook's Third Voyage*, publiſhed by order, and at the expence, of the Engliſh government.

I have been under the neceſſity, in order to bring the work at length to concluſion, to diſtribute among a great number of engravers, the drawings at firſt committed to five artiſts of eminent ability: from this has reſulted an unavoidable defect in point of uniformity and perfection; I have done my utmoſt to render this as imperceptible as it could be.

If this work be ſuch as the Public had a right to expect from the materials put into my hands, and after the unexpected loſs of our navigators, my moſt pleaſing recompenſe will be to reflect, that I have fulfilled the views of Government, and that I contributed my efforts toward that monument of gratitude which it meant to rear to their memory.

PRELI-

PRELIMINARY DISCOURSE

BY

THE COMPILER.

ALL Europe, in the favourable reception given to the relations of the modern voyages round the world, appears to have manifeſted a wiſh to promote the progreſs of the phyſical and natural ſciences: but, it muſt be acknowledged, among the numerous amateurs of works of this kind, ſome have nothing in view but amuſement merely; the object of others is to eſtabliſh, by means of a ſelf-complacent compariſon between our manners and cuſtoms, and thoſe of ſavages, the ſuperiority of civilized man over the reſt of mankind: men of ſcience alone, and they are few in number, ſearch for and find in them, almoſt always, materials which conduce to the increaſe of their ſtock of knowledge.

The relations of voyages of diſcovery may be reckoned among the moſt intereſting books of modern hiſtory. Man, naturally fond of what is new and extraordinary, tranſports himſelf in thought into diſtant regions; he identifies himſelf with the navigator; he partakes in his dangers, his pains, his pleaſures, and becomes his inſeparable companion from the diverſity of objects which attach him, and which furniſh a conſtant ſupply of aliment to his curioſity.

In this laſt point of view, there can be no doubt that extracts from voyages, ſuch as thoſe which Prevoſt has given us, diſengaged from all the dry and tireſome details which reſpect aſtronomy and navigation, may be more agreeable to read than the works at

at large; but ſuch extracts are not the ſources from which the mariner and the man of ſcience derive their ſupplies, becauſe the materials thus paſſed through the crucible of the man of letters, from which they iſſued light and brilliant, no longer preſent the ſolid principle which conſtitutes ſcience, and which is deſtroyed by the change it has undergone.

The authors or tranſlators of works of the ſame kind with the preſent, have almoſt all of them given an enumeration of the voyages which preceded the one they were publiſhing, and of the diſcoveries which had reſulted from them. They thus exhibited a picture of the ſucceſſive acquiſitions which geography had made, at the ſame time that they indicated the works which gave an account of them. I ſhall not repeat this detailed enumeration, which may be found elſewhere, but ſatisfy myſelf with giving a more complete chronological liſt of the principal navigators to whom we are indebted for diſcoveries in the South Sea:

Magellan, a Portugueze, in the ſervice of Spain	1519
Garcia de Loaes or Loayſa, a Portugueze, idem	1525
Alphonzo de Salazar, a Spaniard - -	1525
Alvar Savaédra, a Spaniard - - -	1526
Ferdinand Grijalva and Alvarcdo, Spaniards -	1537
Gaétan, a Spaniard - - -	1542
Alvar de Mendana, a Spaniard - -	1567
Juan Fernandez, a Spaniard - - -	1576
Drake, an Engliſhman - - -	1577
Thomas Candiſh, (Cavendiſh) an Engliſhman -	1586
Sir Richard Hawkins, an Engliſhman - -	1594
Alvar de Mendana, a Spaniard - -	1595
Oliver de Nort, a Dutchman - - -	1598
Pedro Fernandez de Quiros, and Luis Vaes de Torres, Spaniards - -	1606
George Spelberg, a Dutchman - -	1614
Le Maire and Schouten, Dutchmen - -	1616
L'Hermite, a Dutchman - - -	1623
Abel Taſman, a Dutchman - -	1642
Anthony la Roche, a Frenchman - -	1675
Cowley, an Engliſhman - - -	1683

Dampier,

Dampier, an Engliſhman	1687
Davies, an Engliſhman	1687
John Strong, an Engliſhman	1689
Gemelli Carreri, a Neapolitan	1693
Beauchéne Gouin, a Frenchman	1699
William Funnel, an Engliſhman	1703
Wood Roger, an Engliſhman	1708
Louis Feuillée, a Frenchman	1708
Frézier, a Frenchman	1712
Gentil de la Barbinais, a Frenchman	1715
John Cliperton and and George Shelvocke, Engliſhmen	1719
Roggewein, a Dutchman	1722
Anſon, an Engliſhman	1741
Le Hen-Brignon, a Frenchman	1747
Byron, an Engliſhman	1764
Wallis, an Engliſhman	1766
Carteret, an Engliſhman	1766
Pages, a Frenchman	1766
Bougainville, a Frenchman	1766
Cook, an Engliſhman	1769
Surville, a Frenchman	1769
Marion and du Cleſmeur, Frenchmen	1771
Cook, an Engliſhman	1772
Cook, Clerke and Gore, Engliſhmen	1775

Cook's laſt voyage was hitherto known only by the tragical end of the illuſtrious commander of that expedition, when France, availing herſelf of the leiſure procured by the peace which had juſt been concluded, conſidered it as a duty which ſhe owed to her own rank among the firſt maritime powers, and ſtill more to her zeal, and to the means which ſhe poſſeſſed for the advancement of the ſciences, to iſſue orders for a voyage of diſcovery, that ſhe might concur in carrying to perfection the knowledge of the globe which we have ſo long inhabited. If progreſs has been made in modern times in the exploration of unknown regions, if the poſition of each of the known parts of the globe is henceforth fixed, in a word, if every ſtep we take brings us nearer to the object in view, we owe all to the improvement of

aſtronomical knowledge. This ſcience gives us, in the diſtances of certain ſtars, whoſe motion is calculated with extreme preciſion, an infallible baſis by which we are enabled to determine, with an accuracy ſufficient for the ſecurity of navigation, the longitude in the middle of an immenſe ocean, where, till now, it had been impoſſible to ſettle it, except to an approximation in a great meaſure arbitrary, which expoſed the navigator to miſtakes of ſerious importance. This benefit of aſtronomy enſures, for the time to come, the ſucceſs of our expeditions, and the perfecting of geography.

Means undoubtedly exiſt for accelerating this happy reſult of ſcientific reſearch; and this is the place to ſuggeſt ſome ideas reſpecting an object of ſo great magnitude. Theſe means might be combined into a ſyſtem, in a ſpecies of Congreſs to be compoſed of agents commiſſioned by the principal maritime powers, which might wiſh to participate in the glory of ſuch an enterprize.

The Congreſs, conſiſting of aſtronomers, hydrographers, and ſeamen, would make it their buſineſs to retrace all the ancient diſcoveries not completely verified till now; they would preſent a picture of all the parts of the globe where diſcoveries are ſtill to be made, to be completed, or details to be communicated; they would prepare a view of the ſeaſons in every latitude of the two hemiſpheres, of the prevailing winds, of the moonſons, of the currents, of the refreſhments, of the aſſiſtance to be expected, &c.

Upon ſuch a baſis as this, a general inſtruction might be drawn up to be given to the commanders of a great expedition; and in order to prevent the direction of ſeveral projects to the ſame object, the totality of diſcoveries to be made might be divided among the maritime powers, regard being had to the poſſeſſions

poſſeſſions and ſettlements which might reſpectively facilitate the execution of ſuch enterpriſes.

If England, Spain, Holland, Portugal, Ruſſia, the United States, and France, were to agree to defray the expence of an expedition every three years, it is next to a certainty that geography, in leſs than twenty years, would be brought to a ſtate of perfection.

France would unqueſtionably have continued to favour the progreſs of geography, unleſs, for ſeveral years paſt, intereſts of a far different importance, and an expenſive war, undertaken to maintain them, had entirely occupied her, and concentrated all her reſources: but peace, by recalling in a great meaſure the attention of government to the arts and ſciences, promiſes us new expeditions to be ſet on foot to promote them.

When ſuch enterprizes are ſet afloat with enlarged views, all the ſciences are gainers by them. Though the philoſopher is not fond of ſhifting his place, the reſults of voyages do not the leſs on that account become a province of his domain: prompt to collect the obſervations of the mariner, he makes himſelf maſter of his ideas, unfolds them, connects them with the general ſyſtem, by analyzing and claſſing the ſenſations which produced them, and thus give a new life to all the parts of the ſcience.

If navigation thus improved muſt powerfully contribute to extend the boundaries of human knowledge, it is the part of government to ſtimulate in this reſpect the efforts of talent, to reward its ſucceſſes, to collect and publiſh the diſcoveries, to receive and to reflect all the irradiations of thought, all the views of genius, and to attach to itſelf, over every point of the globe, the men who by their merit and their labours appertain to every country and to every age, without regard to their opinion reſpecting events already removed to a diſtance from us,

and of which nothing but the reſult need to be ſeen, and which may become favourable, when on the re-eſtabliſhment of general peace the propoſed plan may be put in execution.

This plan would bring forward the diſcuſſion of ſome important queſtions in geography, and particularly of that of an univerſal meridian; for there is no geographer but has experienced the inconveniences ariſing from the difference of meridians on which our charts have been laid down. It is neceſſary to guard continually againſt falling into errors; the ſmalleſt compariſon to ſettle between two meridians requires an operation of addition or ſubtraction. This confuſion is occaſioned by navigators employing reſpectively, in the formation of their charts, the meridian adopted by their nation, or even by their frequently aſſuming one of their own. On the other hand, ſome in reckoning longitude proceed from the weſt, others from the eaſt, counting up to 360 degrees. Others, and they are the majority among the moderns, have divided their longitudes into eaſtern and weſtern: now, the difference between the meridians of the obſervatories of Europe being the ſame for the meridians of their antipodes, it is found, by this diviſion to the eaſt and to the weſt, that one longitude was, as in our hemiſphere, weſtern to the one, whereas it was eaſtern to the other. From this miſtakes have reſulted, which it would be eaſy to avoid by reckoning longitude uniformly up to 360 degrees, and by a general agreement to proceed weſtward. The only objection againſt this mode of reckoning is, that it does not conſtantly give, by the progreſſion of the degrees, an idea of the diſtance; that is, that up to 180 degrees, the meridian of the antipodes, it is clearly perceptible that degrees mark diſtance; but on proceeding from that point, every one is not in a condition to comprehend that at 200 degrees of longitude,

tude, the diſtance from the meridian where the reckoning commenced is leſs than at 180, whereas by ſaying 160 degrees of eaſt longitude, inſtead of 200 degrees of longitude, one ſenſibly perceives where he is.

It muſt be admitted that the objection againſt numbering the degrees up to 360 is very feeble, regard being had to the merit of a proceſs ſimple and ſecured from error; a merit which ſhould make us overlook the inconſiderable number of perſons who will not learn to comprehend the ſmallneſs of the diſtance between their own meridian and that of 359° 59′.

The advantage reſulting from the mode of reckoning longitude up to 360 degrees, is however a matter of little importance compared to that of the adoption of a common meridian to ſerve, in future, as the baſis of the geography of all nations. It is abundantly ſenſible that the ſelf love of each of them will make inceſſant efforts to cry up and prefer its own. Putting aſide every conſideration of this ſort, the meridian which, it would appear, is the moſt proper to aſſume, in that it paſſes over very little land, and leaves the meridians of the maritime powers of Europe to the eaſt, is that of the remarkable peak which Nature ſeems to have placed in the midſt of the ocean, to ſerve as a pharos to navigators; I mean the peak of Teneriffe. A pyramid conſtructed at the expence of the aſſociated powers might be raiſed on the point through which the meridian line ſhould paſs; and a board of aſtronomers, choſen from among the members of the propoſed congreſs, would determine, by a ſeries of operations, the exact differences between this common meridian, and that of the grand obſervatories of the two worlds.

Theſe operations, to which the perfection of the means we poſſeſs would enſure the higheſt degree of accuracy, muſt remove all uncertainty of calcu-

lation, respecting the quantities to be added or subtracted, in comparing meridian with meridian; they would annihilate the differences produced in the results of their comparison obtained at different epochs, and which may be taken for errors, if we lose sight of this fact, that astronomers, after new observations, made with greater attention, and by the assistance of better instruments, have changed the relations of distance settled between the meridians of the observatories of Paris and Greenwich. That distance, which was fixed at 2^{o} 19′, is now ascertained to be 2^{o} 20′: nay, if a rigorous precision were exacted, it ought to be carried to 2^{o} 20′ 15″, or 9′ 21″ of time, making allowance for the flattening, supposing it $\frac{1}{300}$, according to the observations of the astronomer, Lalande, with whose merit the world is well acquainted, and whose calculations unite, to a very high degree, perspicuity and precision.

The idea of a common meridian, which I present at the head of a journal of an important voyage, arose from the reflections suggested to me by the examination of that work, while employed in the labour of compilation; it smiled upon me as I proceeded in that undertaking: it possibly may not be universally relished; but I must be permitted to form a wish for its adoption, till the inconveniences attending it, if there be any, are pointed out.

This new meridian leaves, at least, our immense geographical materials in all their value; were it not for that, the idea of it ought to be rejected, as I reject, for the present, though with no small regret, that of the new division of the circle, because it presents the serious defect of almost annihilating them. This needs to be explained, and cannot be considered as a digression from my subject.

More than any one I am acquainted with the partisan of decimal calculation, which has been treated with so much accuracy in the writings of the

the learned and ingenious Borda, as well as in thoſe of the other members of the temporary board of weights and meaſures; I cannot however diſguiſe the inconveniences of the diviſion of the circle into 400 degrees. They are ſuch, that it would require the lapſe of ſeveral ages, from the epoch of its general adoption, completely to obliterate them, during which it would be neceſſary to preſerve both diviſions, in order to facilitate the labour of comparing our new charts with thoſe of other powers, and with the ancient materials in geography.

If the portion of time known by the name of day admits of the decimal diviſion, the ſun, in his annual revolution, cannot be reduced to it. Since there is, therefore, in nature, a boundary at which decimal calculation ſtops, and as it cannot divide the period of a ſolar revolution, wherefore ſhould it be adapted to the diviſion of the circle?

It will be alleged, that this diviſion of the circle into 400 degrees is perfectly in uniſon with that of the day into ten hours, of the hour into 100 minutes, and of the minute into 100 ſeconds; which makes one degree of the circle correſpond to two minutes and a half of time. It will be farther obſerved, and with good reaſon, that the baſis of all meaſurements, called *mètre*, being taken in nature, and formed of the ten-millionth part of the quarter of the meridian, there reſults from it a natural decimal diviſion, as the degree is found to contain a hundred thouſand metres, or twenty leagues of five thouſand metres each: but theſe advantages, and that of preſenting, in general, a conſtant ſcale in the degree, and its ſubdiviſions, cannot counterbalance the inconveniences which reſult from the changes propoſed.

The grand idea of rendering weights and meaſures uniform, has produced the ſublime one of looking for the ſtandard of them in nature. That

ſtandard is preciſely ſuch, in fact, as we would have found it among a nation well informed and new to us, had it made the ſame progreſs in the arts and ſciences, and had it conceived, as we have done, the project of eſtabliſhing the uniformity of weights and meaſures, by ſeeking the baſis of it in nature.

What opportunity more favourable for diſcuſſing the advantages and the inconveniences of adopting an uniformity of weights and meaſures, and that of the decimal diviſion, than that of a congreſs, conſiſting of the repreſentatives of the moſt illuſtrious ſcientific ſocieties in the world! If the different governments would agree to admit this uniformity in every caſe in which it would be deemed uſeful, its ſimultaneous and univerſal reception would double the benefit of it; and then would be the time to make the greateſt effort to overcome the difficulties of its application to the diviſion of the circle and the meaſurement of time.

What power preferably to France would henceforth, by an influence equally extenſive and commanding, realize the plan of ſuch a congreſs? As great in her enterprizes as in her conceptions, in her operations as in her views, ſhe determined, as I have ſaid, to ſet on foot a voyage of diſcovery; the project agreed upon was adopted by government: the preliminary inſtructions will demonſtrate that it was as vaſt as ably conceived, in the totality and in the details. A commander in chief, of acknowledged ability, was requiſite to conduct the expedition: La Pérouſe was ſelected. His exertions, and his conſtant ſucceſſes, in military marine enterprizes, had inured him to the approach of every ſpecies of danger, and rendered him fitter than any man to purſue the painful and perilous career of a long navigation over unknown ſeas, and through the midſt of countries inhabited by barbarous nations. I feel an obligation

to

to the reader, on this ſubject, to enter into certain details reſpecting the life of this celebrated and ill-fated officer.

John Francis Galaup de la Pérouſe, commodore in the navy of France, was born at Albi, in the year 1741. Admitted at an early age into the marine ſchool, his firſt attention was turned toward the illuſtrious navigators who had raiſed the reputation of their country, and from almoſt the firſt moment he formed the reſolution of purſuing their track; but, enabled to advance but by ſlow degrees in this difficult career, he prepared himſelf, by feeding his mind in advance with the fruit of their labours, to become one day their equal. He had united betimes experience to theory. He already completed eighteen naval campaigns, when the command of the laſt expedition was confided to him. Appointed midſhipman November 19, 1756, he ſerved at firſt five campaigns in a war with England: the firſt four on board the Célèbre, the Pomone, the Zephyr, and the Cert; and the fifth on board the Formidable, commanded by St. André du Verger. This veſſel was one of the ſquadron under the command of the Mareſchal de Conflans, when it fell in with the Engliſh fleet off Belliſle. The ſhips of the rear diviſion, the Magnifique, the Hero, and the Formidable, were attacked and ſurrounded by eight or ten ſail of the enemy. The engagement commenced and became general; it was ſo deſperate, that eight veſſels, Engliſh or French, went to the bottom during the action, or run a-ground, and were burnt on the coaſt of France. The Formidable alone, more roughly handled than the reſt, was taken after a vigorous reſiſtance. La Pérouſe diſplayed ſingular bravery in this combat, and was ſeverely wounded.

Reſtored to his country, he ſerved in the ſame rank three campaigns more on board the Robuſte: here he

he distinguished himself in several trying situations; and his rising merit began to attract the attention of his superiors.

October 1st, 1764, he was promoted to the rank of signal officer. A man of a less active disposition would have enjoyed the sweets of peace; but a passion for the profession which he had embraced, permitted him not to remain unemployed. It is sufficient, in order to form a judgment of his indefatigable activity, to cast an eye over the outline of his military and naval existence from that era up to the year 1777. He was,

In 1765, on board the Adour, armed en flute;
1766, on board Le Gave, armed en flute;
1767, he commanded l'Adour, armed en flute;
1768, he commanded the Dorothée;
1769, he commanded the Bugalet;
1771, on board the Belle-Poule;
1772, ibid;
1773, 1774, 1775, 1776, 1777, } He commanded the Seine, en flute, and Les Deux Amis, on the coast of Malabar; his lieutenant's commission bears date April 4th, 1777.

The year 1778 rekindled the war between France and England; hostilities commenced June 17th, by the capture of the Belle-Poule.

In the year 1779, La Pérouse commanded the Amazone, one of the squadron under the command of vice-admiral d'Estaing. Appointed to cover the landing of the troops at Grenada, he anchored within pistol-shot of one of the enemy's batteries. In the engagement of this squadron with that of admiral Byron, he was charged with carrying the orders of the commander in chief over the whole line. Finally, he captured, on the coast of New-England, the Ariel frigate,

frigate, and aſſiſted in the capture of the Experiment.

Appointed Captain April 4th, 1780, he commanded the frigate Aſtrea, when being on a cruize with the Hermione, commanded by Captain La Touche, he fought, July 21ſt, a very obſtinate battle with ſix Engliſh ſhips of war, ſix leagues off the north cape of l'Iſle Royale. Five of theſe ſhips, the Allegiance of 24 guns, the Vernon of the ſame force, the Charleſtown of 28, the Jack of 14, and the Vulture of 20, formed a line to receive them; the ſixth, the Thompſon of 18 guns, kept out of cannon ſhot. The two frigates advanced together upon the enemy with all their ſails ſet. It was ſeven o'clock in the evening when the firſt gun was fired. They extended the Engliſh line to leeward, to cut off all hopes of eſcaping. The Thompſon kept ſtill to windward. The two frigates manœuvred ſo dexterouſly, that the Engliſh little ſquadron was ſoon thrown into diſorder: in little more than half an hour, the Charleſtown, which bore the commodore's pendant, and the Jack, were obliged to ſtrike; the other three ſhips would have ſhared the ſame fate, had not the night ſaved them from the purſuit of the two frigates.

The year after, the French government formed the deſign of taking and deſtroying the Engliſh ſettlements in Hudſon's Bay. La Pérouſe was deemed a proper perſon for executing this painful ſervice, in ſeas of difficult navigation. He received orders to ſail from Cape Français, May 31ſt, 1782. He commanded the Sceptre, of 74 guns, and was attended by the Aſtrea and Engageante frigates, of 36 guns each, commanded by captains De Langle and La Jaille: there were embarked on board this ſquadron 200 infantry, 40 artillery men, four field pieces, two mortars, and 300 bombs.

July 17th, he came up with Reſolution Iſland; but

but ſcarcely had he advanced 25 leagues in Hudſon's Strait, when he found his ſhips entangled among the ice, by which they received conſiderable damage.

On the 30th, after a conſtant ſtruggle with obſtacles of every ſpecies, he got ſight of Cape Walſingham, ſituated in the moſt weſterly part of the ſtrait. In order to arrive expeditiouſly at Fort Prince of Wales, which he propoſed immediately to attack, he had not a ſingle moment to loſe, the rigour of the ſeaſon obliging all veſſels to quit thoſe ſeas early in September: but as ſoon as he had fairly entered Hudſon's Bay he was involved in thick fogs; and on the 3d of Auguſt, when it began to clear up, he ſaw himſelf ſurrounded by ice as far as the eye could carry, which forced him to make for the cape. He triumphed nevertheleſs over theſe obſtacles; and, toward evening on the 8th, having deſcried the flag of Fort Prince of Wales, the French ſhips made for it, ſounding till they came within a league and a half, and anchored in 18 fathom water, on a bottom of mud. An officer, ſent to reconnoitre the approaches to the fort, reported that the veſſels could be ſafely moored a little way off. La Pérouſe having no doubt that the Sceptre alone could not eaſily reduce the enemy, ſhould they reſiſt, made preparation for effecting a landing in the night time. Though retarded by the tide and the darkneſs, the boats reached the land without meeting any oppoſition, about three quarters of a league from the fort. La Pérouſe, obſerving no defenſive diſpoſition made, though the fort appeared in a condition to make a vigorous reſiſtance, ordered the enemy to be ſummoned. The gates were thrown open; the governor and garriſon ſurrendered at diſcretion.

This part of his orders being executed, he ſet ſail, Auguſt 11, for Fort York: in order to reach it, he had to encounter dangers ſtill greater than thoſe which

which he had hitherto experienced; he ſailed in ſix or ſeven fathom water, along a coaſt of continued rocks and quickſands. After running through riſks innumerable, the Sceptre and the two frigates diſcovered the entrance into Nelſon's river, and anchored, Auguſt 20th, about five leagues from ſhore.

La Pérouſe had taken three decked boats at Fort Prince of Wales; he ſent them, with the Sceptre's boat, to reconnoitre Hayes' river, near which ſtands Fort York.

On the 21ſt of Auguſt, the troops embarked on board the boats; and La Pérouſe, having nothing to fear from the enemy by ſea, thought it his duty to direct the debarkation in perſon.

The iſle of Hayes, on which Fort York ſtands, is ſituated at the mouth of a great river, which it divides into two branches; that which paſſes before the fort is called the river of Hayes, and the other Nelſon's river. The French commander knew that all the means of defence were placed upon the former; there was beſides a veſſel belonging to the Hudſon's Bay Company, carrying 24 nine pounders, moored at the mouth of the river. He determined on forcing his way up Nelſon's river, though his troops would have, in this direction, to perform a march of about four leagues; but he thereby gained the advantage of rendering uſeleſs the batteries planted on the river of Hayes.

He arrived on the evening of the 21ſt, at the mouth of Nelſon's river, with 250 ſoldiers, the mortars, the cannon, and proviſions for eight days, that there might be no neceſſity to depend on the ſhips, the communication with which was extremely difficult. La Pérouſe gave orders for the great boats to anchor in three fathoms water, in the mouth of the river, and advanced himſelf in his long-boat, with the ſecond in command Langle, the commander of the troops to be landed Roſtaing, and Monneron,

captain

captain of artillery, to ſound the river and examine the banks, on which he apprehended the enemy might have provided ſome means of defence.

This operation demonſtrated that the river was inacceſſible; the ſmalleſt boats could get no nearer than about a hundred fathom, and the bottom from that to the dry land was a ſoft mud. He thought it prudent, therefore, to remain at anchor, and to wait for the return of day-light; but the tide loſing much more than he had reckoned upon, the boats were left dry at three o'clock in the morning.

Irritated by this obſtacle, but not in the leaſt diſcouraged, all the troops diſembarked; and after having walked for near a mile in the mud up to mid-leg, they at length gained a green field, where they drew up: thence they marched in order towards a wood, where they laid their account with finding a path which would lead to the fort. No one could be diſcovered, and the whole day was employed in ſeeking for roads which had no exiſtence.

La Pérouſe ordered Monneron, the captain of engineers, to trace one by the compaſs through the middle of the woods. The execution of this extremely painful ſervice diſcovered that there were two leagues of a moraſs to be croſſed, in which the men frequently ſunk up to the knees in mud. A gale of wind, which ſprung up in the night, forced the reſtleſs La Pérouſe to return to the ſhips. He reached the ſhore; but, the tempeſt continuing, he could not get on board. He availed himſelf of an interval of moderate weather, and next day reached his ſhip, an hour before a ſecond gale came on. An officer, who ſet off at the ſame time with him, was ſhipwrecked: he had, as well as his boat's crew, the good fortune to gain the land; but they could not return on board till the end of three days, naked and periſhing with hunger. The Engageante and

the

the Aſtrea loſt two anchors each, in the ſecond gale of wind.

Neverthelefs the troops arrived before the fort on the morning of the 24th, after a very troubleſome march, and it was ſurrendered on the firſt ſummons. La Pérouſe ordered the fort to be deſtroyed, and the troops immediately to re-embark.

Theſe orders were rendered ineffectual by a new gale of wind, which expoſed the Engageante to the greateſt dangers; her third anchor broke, as well as the tiller of the helm, and her longboat was carried away. The Sceptre likewiſe loſt hers, her pinnace and an anchor.

At length fine weather returned, and the troops were re-embarked. La Pérouſe, having on board the governors of forts York and Prince of Wales, ſet ſail to bid adieu to thoſe latitudes, abandoned to ſtorms and ice, in which military ſucceſs, obtained without the ſlighteſt reſiſtance, had been preceded by ſo much pain, danger, and fatigue.

If La Pérouſe, as a military commander, was under the neceſſity of conforming to the ſtrict orders which he had received of deſtroying the enemy's ſettlements, he forgot not at the ſame time the reſpect due to calamity. Having diſcovered that on his approach ſome of the Engliſh had made their eſcape into the woods, and that his departure, conſidering the deſtruction of the ſettlements, expoſed them to periſh with hunger, and to fall defenceleſs into the hands of ſavages, he had the humanity to leave them proviſions and arms.

Can there be, on this ſubject, an elogium more flattering than this ſincere acknowledgment of an Engliſh ſeaman, in his relation of a voyage to Botany Bay? "We are bound to recollect with gratitude, in "England eſpecially, that humane and generous "man, for the conduct which he obſerved in acting under

"under orders to deſtroy our ſettlements in Hud-
"ſon's Bay, in the courſe of the laſt war."

After a teſtimony ſo juſt and ſo conformable to truth, and at a period when the Engliſh nation has acquired ſo much merit with the friends of the arts and ſciences, by her zeal to publiſh the reſults of the voyages of diſcovery which ſhe has ordered, ſhall we be under the neceſſity of reproaching another Engliſh military character with a breach of faith pledged to La Pérouſe?

Governor Hearn had, in 1772, performed a journey over land, toward the north, taking his departure from Fort Churchill; a journey of which the detailed account is expected with much impatience. The manuſcript journal of it was found by La Pérouſe among the papers of that governor, who inſiſted that it ſhould be reſtored to him as his private property. This journey, however, having been undertaken by orders of the Hudſon's Bay company, in the view of acquiring farther knowledge of part of North America, the journal might well be conſidered to belong to that company, and, conſequently, to have devolved to the conqueror: nevertheleſs, La Pérouſe, from motives of pure benevolence, yielded to the ſolicitations of Governor Hearn; he reſtored him the manuſcript, but under the expreſs condition that he would have it printed and publiſhed immediately upon his return to England. This condition does not appear to have been hitherto fulfilled: but it is to be hoped that the remark now made, and laid before the public, will produce the effect intended, or, at leaſt, induce the governor to make it known whether the Hudſon's Bay company, from an averſion to have the proceedings of their commerce diſcloſed, has forbidden the publication of it.*

* This anecdote had not come to my knowledge when I wrote the note to be found in a ſubſequent part of this volume.

The

The era of the re-eſtabliſhment of peace with England, in 1783, terminated this naval campaign. The indefatigable La Pérouſe did not enjoy long repoſe; a more important expedition awaited him: alas! it was to be his laſt. He was deſtined to take the command of an intended voyage round the world, for which preparations were making at Breſt.

I ſhall not conform to the common practice, by indicating beforehand the track which our navigator purſued through the two hemiſpheres, the coaſts, and the iſlands, which he explored or reviſited in the Pacific Ocean, the diſcoveries which he made in the ſeas of Aſia, and the important ſervices which he has rendered to geography: I make this ſacrifice to the Reader, whoſe curioſity will rather be excited than anticipated, and who will undoubtedly be better pleaſed to follow our navigator himſelf in his courſe.

Hitherto I have conſidered La Pérouſe only as the military man and the navigator: but he deſerves to be equally known for his perſonal qualities; for he was not leſs capable of gaining the affections of men of all countries, or of commanding their reſpect, than of foreſeeing and overcoming the obſtacles which human ſagacity is permitted to ſurmount.

Uniting to the vivacity of the inhabitants of ſouthern countries, an agreeable humour and an even temper, his gentleneſs and amiable gaiety made his converſation to be always eagerly courted. On the other hand, matured by long experience, he joined to uncommon prudence that firmneſs of character which is the portion of a vigorous mind, and which, ſtrengthened by the painful kind of life to which a ſeaman is doomed, qualified him for attempting, and for conducting, with ſucceſs, the moſt arduous enterprizes.

From the union of theſe different qualities, the Reader, himſelf witneſſing his inconquerable patience

in exertions governed by circumſtances, the ſevere conduct which his foreſight dictated, the meaſures of precaution which he employed with the people whom he viſited, will not be greatly aſtoniſhed at the beneficent and moderate, as well as circumſpect, behaviour of La Peroufe toward them, at the confidence, nay ſometimes the deference, which he expreſſed for his officers, and at the paternal care which he exerciſed over his crews: nothing that could intereſt them, either by preventing their diſtreſs, or promoting their welfare, eſcaped his vigilance or his ſolicitude. Not wiſhing to convert a ſcientific enterprize into a mercantile ſpeculation, and leaving entirely the profits of the objects of interchange as a benefit ſolely to the ſeamen of the crew, he reſerved for himſelf the ſatisfaction of reflecting that he had been uſeful to his country and to the ſciences. Perfectly well ſeconded in his attentions to the preſervation of their health, no navigator ever performed a voyage of ſo long duration, or of ſuch vaſt extent, through an inceſſant change of climate, with crews ſo healthy; for, on their arrival at New Holland, after being thirty months at ſea, and running over a track of more than ſixteen thouſand leagues, they were in as good health as when they left Breſt.

Maſter of himſelf, and never giving way to firſt impreſſions, he was in a condition to reduce to practice, eſpecially on this expedition, the precepts of a ſound philoſophy, friendly to humanity. Were more diſpoſed to compoſe his elogium, neceſſarily iſolated and incomplete, than to leave to the Reader the pleaſure of forming an eſtimate of him from facts clothed with all their circumſtances; and of founding a judgment on his writings taken together, I might quote a multitude of paſſages from his journal, the character and turn of which faithfully paint the man, and which I have preſerved as a precious treaſure. I might ſhew him, in a particular manner, adhering

hering ſcrupulouſly to that article of his inſtructions, engraven upon his heart, which directed him to avoid the ſhedding of a ſingle drop of human blood; having followed it conſtantly through a voyage of ſuch length, with a ſucceſs due to its principles; and, when attacked by a barbarous horde of ſavages, he had loſt his ſecond in command, a naturaliſt, and ten men of the two crews, notwithſtanding the powerful means of vengeance which he poſſeſſed, and motives ſo excuſable to employ them, he reſtrained the fury of his men, fearing to ſtrike a ſingle innocent victim among thouſands of the guilty.

Equitable and modeſt, as well as enlightened, we ſhall ſee with what reſpect he makes mention of the immortal Cook, and how zealous he is to do juſtice to the great men who had preceded him in the ſame career.

Equally juſt to all, La Pérouſe in his journal and in his correſpondence, diſpenſes with impartiality the praiſes to which his coadjutors are entitled. He likewiſe makes grateful mention of the ſtrangers who, in different parts of the world, received him with kindneſs, and procured aſſiſtance for him. If government, as there is no room to doubt, means to fulfil the intentions of La Pérouſe, it owes to theſe laſt a public token of acknowledgment.

Valued according to his worth by the Engliſh navigators who had an opportunity of knowing him, they have given him an unequivocal teſtimony of eſteem in their writings.

All who enjoyed his intimacy have pronounced his juſt elogium, but it would be endleſs to deſcend to particulars.

To ſpeak, however, of his virtues, of his talents, is to recollect his misfortunes, is to awaken our own regret: the idea of the one is henceforward inſeparably connected with the recollection of the other; and they lay the foundation for perpetuity of a monu-

ment of ſorrow and gratitude in the heart of every friend of the ſciences and of humanity. If I feel any emotion of delight at the cloſe of the painful labour which this work required, and after the care and trouble which it coſt me up to the day of publication, it is undoubtedly at this inſtant, when I am permitted to be the organ of the French republic, in paying to his memory a tribute of national gratitude.

La Pérouſe, after his laſt letters from Botany Bay, was to have gone to the Iſle of France, in 1778.* The two following years having clapſed, the important events which occupied and fixed the attention of all France, could not divert her attention from the fate which ſeemed to threaten our navigators. The firſt expreſſions of ſolicitude on the ſubject, the firſt accents of fear and ſorrow, iſſued from the bar of the National Aſſembly, through the organ of the members of the Society of Natural Hiſtory.

"For theſe two years," ſaid they, "France has to "no purpoſe been looking for the return of M. de "la Pérouſe; and thoſe who take an intereſt in his "perſon and in his diſcoveries, are totally in the dark "as to his fate. Alas! that which they ſuſpect, is "perhaps ſtill more terrible than that which he ac- "tually endures; and perhaps he has eſcaped death "only to be ſubjected to the inceſſant torment of a "hope continually reviving and continually diſap- "pointed; perhaps he may have ſuffered ſhipwreck "on one of the iſlands of the South Sea, from whence "he ſtretches forth his hands toward his country, "and in vain expects a deliverer. . . . . "

"It was not in the purſuit of frivolous objects, or "for his private advantage, that M. de la Pérouſe has "braved danger of every kind; the generous nation "which was to have reaped the fruit of his labours, "owes him likewiſe her intereſt and her aid."

* See vol. ii. extracts from two letters of La Pérouſe, dated Botany Bay, February 7th, 1788.

"We

" We are already informed of the loſs of many of " his companions, ſwallowed up by waves, or maſ- " ſacred by ſavages: cleave to the hope which re- " mains to us, of recovering ſuch of our brethren as " may have eſcaped the fury of the billows or the " rage of cannibals; let them return to our ſhores, " were they even to die of joy in embracing this land " of liberty, ..."

The demand of the Society of Natural Hiſtory, received with the moſt lively intereſt, was followed up ſoon after by the law which directed the arming of two frigates to go in queſt of La Pérouſe.

The motives which dictated this decree, the very terms of the report diſcover the tender and affecting intereſt which our navigators had inſpired, and the ardor with which, from a deſire to find them again, a ſingle ray of hope was eagerly catched at, without reflecting on the great ſacrifices which this voyage of reſearch demanded.

" For a long time our vows call for M. de la Pé- " rouſe, and the companions of his glorious, too pro- " bably, alſo, of his unfortunate voyage."

" The Society of Naturaliſts of this capital is come " to tear aſunder the vail which you dared not to raiſe " up; the mourning which they have announced is " become univerſal; and you have appeared to em- " brace, with tranſport, the idea which has juſt been " ſuggeſted to you, of ſending out ſhips in ſearch of " M. de la Pérouſe. You have given orders to your " committees of the marine, of agriculture, and com- " merce, to preſent you with their views reſpecting an " object ſo deeply intereſting: the ſentiment which " appeared to determine your reſolution, has likewiſe " dictated their opinion."

" There ſcarcely remains to us the conſolation of " doubting on the ſubject: M. de la Pérouſe has " ſuffered ſome dreadful diſaſter."

" It is impoſſible for us reaſonably to hope that

" his veſſels are at this moment ploughing the ſur-
" face of the deep. That navigator and his com-
" panions are either now no more; or elſe, thrown
" on ſome diſmal ſhore, loſt in the immenſity of
" innavigable ſeas, and confined to the extremities
" of the world. They are, perhaps, contending
" with inclemency of climate, with ferocious animals,
" with men, with all nature, and calling for aſſiſt-
" ance on their country, which can only form con-
" jectures about the calamity which may have be-
" fallen them. Stranded, perhaps they are, upon
" ſome unknown coaſt, upon ſome barren rock:
" there, if they have been ſo fortunate as to fall into
" the hands of a hoſpitable people, they breathe;
" but nevertheleſs, ſtill implore your aid; or if they
" have been caſt upon a bare ſolitude, wild fruits
" and ſhell-fiſh are the only ſupport of their exiſt-
" ence: fixed on the ſhore, their eyes travel along
" the face of the ocean in ſearch of ſome auſpicious
" ſail which might waft them back to France, to
" their families, to their friends."

" Reduced to embrace an idea which is, perhaps,
" nothing more after all than a pleaſing error, you
" are diſpoſed undoubtedly, as we are, to prefer this
" conjecture to the overwhelming idea of their total
" loſs: it is that which the Society of Naturaliſts
" of Paris have juſt preſented to you; it is that
" which M. de la Borde had before impreſſed on
" every heart poſſeſſing ſenſibility, in a memorial
" read before the Academy of Sciences."

" But if you are affected, if you are ſtruck with this
" idea, it will be impoſſible for you any longer to give
" yourſelves up to impotent regret: humanity re-
" quires it; we muſt fly to the relief of our brethren.
" Alas! where ſhall we go to look for them? Whom
" have we to interrogate concerning their deſtiny?
" Is it poſſible to explore all the coaſts of ſeas in ſome
" meaſure unknown? Is it poſſible to touch at all
the

"the islands of those immense archipelagos which "present so many dangers to the mariner? Is it pos- "sible to visit all the gulfs, to penetrate into all the "bays of the ocean? Is it not even possible, on "reaching the island which might contain them, to "land on one point, and leave them on another?"

"The difficulties are undoubtedly great, the suc- "cess is more than hopeless; but the motive of the en- "terprize is powerful. It is possible that our ill-fated "brethren may be stretching out their arms toward "us, it is not impossible that we should restore them "to their country; and henceforth we are no longer "permitted to recede from an attempt which cannot "but do us honour. We owe this interest to the "men who have devoted themselves; we owe it to "sciences, which are expecting the fruit of their re- "searches: and, what ought to increase this interest, "M. de la Pérouse was not one of those adventurers "who thrust themselves on great enterprizes, either "to procure for themselves an illustrious name, or "to make them subservient to the raising of their for- "tune; he had not even discovered the ambition of "commanding the expedition entrusted to his care; "he could have wished it had been in his power to "refuse it; and when he accepted the command, "his friends well knew that it was an act of pure re- "signation....."

"Fortunately we know the track to be pursued in "a research so painful; fortunately we can put into "the hands of the persons to be charged with this "affecting mission, the conducting thread of the "perilous labyrinth which they have to trace."

"The proposal of a research which humanity en- "joins, cannot be carried to this tribune to be com- "batted by the maxims of parsimony, or to be dis- "cussed by cold reason, when it ought to be decided "purely by feeling."

"This expedition will be to M. de la Pérouse, or

"to his memory, the most glorious recompence with "which you can honour his services, his self-dedica- "tion or his misfortunes. Thus it becomes a great "nation to dispense rewards."

"Acts like this confer celebrity on the nation also "which has the spirit to perform them; and the sen- "timent of humanity which gives them birth, will "characterize the age in which we live. It is no "longer to invade, and to ravage, that the European "penetrates into latitudes the most remote, but to "introduce into them enjoyment and benefits; it is "no longer to rob them of corruptive metals, but to "subdue those useful vegetables which contribute to "the support and delight of human life. Finally, "there will be seen, and the savage tribes will not "be able to contemplate it without the meltings of "sympathy, there will be seen, at the extremity of the "globe, piously affectionate navigators demanding "information with interest, concerning the destiny "of their fellow sailors, of the men and the deserts, "of the caves and the rocks, and even of shelves and "quicksands; there will be seen on seas the most per- "fidious, in the sinuosities of archipelagos the most "dangerous, around all those islands peopled with "anthropophagi, men wandering about in search of "other men, to precipitate themselves into their "arms, to succour and to save them."

Scarcely had the ships dispatched in quest of La Pérouse taken their departure, when a report was circulated that the Captain of a Dutch vessel sailing through the Admiralty Islands, to the west of New Ireland, had perceived a canoe manned by the natives, who appeared to him to be dressed in the uniforms of the French marine.

General d'Entrecasteaux, who commanded the new expedition, having put in to the Cape of Good Hope, heard this report. Notwithstanding its want of authenticity and of probability, he did not hesitate a single

a ſingle inſtant; he changed the track which he had propoſed to purſue, and flew to the place which the report indicated. His zeal having been followed with no manner of ſucceſs, he recommenced his reſearch in the order preſcribed by his inſtructions, and he finiſhed it without being able to obtain the ſlighteſt intelligence, or any thing that had the ſhadow of probability, reſpecting the fate of our unfortunate navigator.

The cauſe of the loſs has been reaſoned upon in France, in various ways. Some perſons, unacquainted with the track which remained for him to purſue from Botany Bay, and which is traced in his laſt letter, have alleged that his ſhips muſt have been caught in the ice, and that La Pérouſe and all his companions muſt have periſhed by a death of the moſt horrid form. Others have taken upon them to affirm, that before his arrival at the Iſle of France, toward the cloſe of 1788, he had become the victim of the violent hurricane which had proved ſo fatal to the Venus frigate, for ſhe was never more heard of, and which had entirely diſmaſted the frigate Reſolution.

Though it be impoſſible to diſpute the aſſertion of theſe laſt, at the ſame time it ought not to be admitted without proof. If it is not the true account, La Pérouſe muſt probably have periſhed through ſtreſs of weather, on the numerous ſhallows which line the ſhores of the archipelagos which he had yet to explore, and which General d'Entrecaſteaux actually reconnoitred. The manner in which the two frigates always ſailed, within reach of voice, muſt have rendered the ſame accident common to both; they muſt have ſhared the diſaſter which had ſo nearly befallen them November 6th, 1786, and been ſwallowed up before they could reach land.

The only hope which can remain is, that they may have been ſhipwrecked on the coaſt of ſome uninhabit-

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ed island; in this case there may still exist some individuals of the two crews, on one of the innumerable islands of those archipelagos. Far from the tracks hitherto pursued, they may have escaped all search made for them, and may never again revisit their country, except from the effect of chance which may send a ship that way, as they are probably deprived of all resources for building one.

We cannot, however, but admit the observation, that the savages perform very long voyages in canoes simply; and we may judge, on inspecting the chart, that if our shipwrecked seamen had got ashore, whether upon a desert island, or among savages who spared their life, they might have been able, in the course of nine years, to approach nearer and nearer to a place from which they could convey news of themselves; for it is probable, that they would have attempted every thing to deliver themselves from that state of anxiety and sequestration inexpressibly worse than death. If, then, our hopes be not entirely annihilated, they are at least extremely faint.

A navigator has emitted a declaration of his having proofs of the shipwreck of La Pérouse. The Reader will judge of the confidence due to them, from his deposition, of which I shall give an exact copy, without presuming to make any other observation than that of comparing the author with himself, and of contrasting his affirmation with the relation of Bougainville.

Extract from the Minutes of the Municipal Court of the City and Community of Morlaix.

"George Bowen, commander of the ship Albemarle, bound from Bombay to London, and "brought into Morlaix, being interrogated whether "he had any knowledge of La Pérouse, who had "left France on a voyage round the world, replied "that

" that in December, 1791, he himself saw, on his " return from Port Jackson to Bombay, on the coast " of New Georgia*, in the eastern ocean, the wreck " of M. de La Pérouse's vessel, floating on the wa- " ter†, and that in his opinion it was part of a " vessel of French construction; that he did not go " on shore, but that the natives of the country came " on board his ship; that he could not comprehend " their language, but that by their signs he had " been enabled to understand that a vessel had come " ashore in those latitudes; that these natives un- " derstood the use of several pieces of iron-work, " of which they were curiously fond; and that he, " the Examinee, had exchanged several articles of " iron ware with those Indians, for glass-ware and " bows: as to the character of those Indians, that " to him they appeared peaceable‡, and better in- " formed than the inhabitants of Otaheite, as they " had a perfect knowledge of works of iron; that " their canoes were finished in a very superior style: " that when the natives were on board his ship, he " had not as yet any knowledge of the wreck in " question, and that in coasting along the land, he " perceived it by the help of a great fire kindled on " shore, toward the middle of the night§ of Decem- ber

* Seen again by Shortland, a lieutenant in the English navy, in 1788; but discovered in part by Bougainville, the captain of a French ship, in 1768; and still farther by Surville, captain of one of the East India Company's ships, who gave it the name of *the country of the Arsacides.—French Editor.*

† La Pérouse could perish only in 1788. I leave it to those who are acquainted with the effects of the waves of the sea on a ship-wrecked vessel, to judge whether this wreck could still exist floating on the water, at the end of December, 1791.—*French Editor.*

‡ Those Indians, characterized as peaceable, attacked the boats which Bougainville had sent ashore for water, upon their coming into Choiseul's Bay.—*French Editor.*

§ It is undoubtedly surprizing, that the wreck seen by George Bowen, and affirmed to be that of the vessel of La Pérouse, and of French construction, which supposes it to have been considerable in

" ber 30, 1791; that, but for this fire, he would " probably have run aground on the rocks of Cape " Deception. The Examinee delares that, in all this " part of New Georgia, he obſerved a great number " of cottages or huts; that thoſe Indians were of a " robuſt form, and of a gentle character, from whence " he preſumes that if M. de La Pérouſe, or any of " his ſhip's company, got on ſhore, they may ſtill " exiſt*; and that, to his knowledge, of all the ſhips " which have navigated in thoſe latitudes, no one, ex- " cept that of M. de Bougainville, the Alexander, the " Friendſhip of London, that of M. de la Pérouſe, " and his own, were ever on that part of the coaſt: " that of conſequence he preſumes this to be the " wreck of M. de La Pérouſe's veſſel †, as the Alex- " ander went to the bottom in the Strait of Macaſſa, " and the Friendſhip reached her port in England. " Being interrogated whether he had ſeen on the " natives of the country any article of dreſs which " indicated a communication with Europe, replied, " that thoſe Indians were naked; that the climate " is very hot, and that, by their ſigns, he underſtood " that they muſt have ſeen ſhips before that time; " that he perceived in the poſſeſſion of thoſe Indians " nets for fiſhing, the threads of which were of " flax, and whoſe meſhes were of European manu- " facture §; that he had out of curioſity, taken a " ſmall

in quantity, and examined cloſely and with minute attention, is here found to have been perceived only at midnight, by the light of a fire kindled on the land.—*French Editor.*

* Bougainville, obliged to repel by force, the attack of thoſe Indians, captured two of their canoes, in which he found among other articles, *a human jaw half broiled*, an evident proof of their being men-eaters.—*French Editor.*

† The Engliſh captain no longer ſtates it as a matter of certainty, that the wreck which he ſaw, was part of the ſhip of La Pérouſe; it is now no more than ſimply a preſumption.—*French Editor.*

§ Bougainville found in the canoes which fell into his hands, *nets with*

" ſmall piece of one of them, from which it would " be eaſy to judge that the materials and the work- " manſhip were both from Europe."

Such are, up to this day, the only indications obtained reſpecting the fate of our navigator.

The public documents, always ſubſiſting, of the track which he purſued, and of the countries which he viſited, are the medals ſtruck on occaſion of his voyage, and left or diſtributed by La Pérouſe in the courſe of his progreſs. There had been delivered to him about a hundred, partly ſilver, partly copper, and ſix hundred of different metals. The remainder of his route being known, theſe medals may one day indicate to us nearly the place where his diſaſter interrupted it.

The medal relative to the voyage having become an hiſtorical monument, and being within the probability of preſenting itſelf to future navigators in the ſame track, I cannot reſiſt my inclination to deſcribe it, though I did not think myſelf bound to get it engraved. It has, on the one ſide, the effigies of the king, with the uſual inſcription; the reverſe is inſcribed with theſe words, ſurrounded by two olive branches bound with a knot of ribband:

The frigates of the King of France, La Bouſſole and l'Aſtrolabe, commanded by Meſſrs. de La Pérouſe and De Langle, ſailed from the port of Breſt, in June, 1785.

So many precautions employed to enſure the ſucceſs and authenticity of a great expedition, the expenſe which it occaſioned, the vexation and calami-

with meſhes of a very delicate thread and moſt artfully woven. It is probable that their perfectneſs led George Bowen into an error.—*French Editor.*

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ty with which it is attended, will excite a doubt in the minds of certain prejudiced and ſyſtematic gentlemen, whether this trouble and anxiety are compenſated by the reciprocal benefit which nations derive from voyages of diſcovery. Though I myſelf have refuſed to acknowledge as a benefit the introduction of our domeſtic animals, and of ſome farinaceous vegetables among ſavage tribes, compared to the miſchief reſulting to them from the falſe or ſuperficial notions which our principles ſuggeſt to them, and from the ſudden communication of our manners and cuſtoms; I ſay, that after having given them detached particulars of knowledge, which they are incapable to extend or to apply, vegetables and animals which they neither preſerve nor perpetuate, to abandon them to themſelves, is to render fruitleſs the deſire excited in them to know and to enjoy, it is to make them miſerable; but that to inſtruct them gradually in order to civilize them, to form them into orderly colonies, before attempting to make them poliſhed nations, and not to communicate to them new wants and new modes of acting, without giving them, at the ſame time, the means of providing for the one, and of ſerving themſelves advantageouſly of the other, is to prepare and enſure to their poſterity the happy reſults of the expanſion of the human faculties.

If there could reſult to us as to them inconveniences from theſe communications, when the relations are ſo different, the great advantages which the arts and ſciences derive from voyages of diſcovery, cannot be reaſonably diſputed. Civilized man feels the neceſſity of proportioning his acquirements in knowledge, and his enjoyments, to the capacity of his underſtanding, and to the extent of his deſires. The navigator, as he advances, diſcovers new productions beneficial to humanity; he aſcertains the different points of the globe, and gives ſecurity to his

his own route and to that of others; he teaches us to form a judgment of our fellow creatures from a greater number of relations, and every ſtep of his progreſs is a new approximation toward the knowledge of man and of nature. It is great, it is noble, thus to incur expenſe and to encounter danger for the benefit of ſociety at large, and for the increaſe of true riches.

If ſome philoſophers have condemned voyages in general, becauſe expeditions undertaken from ambitious and intereſted views, have exhibited acts of barbarity following in their train, it is undoubtedly becauſe they confounded them with voyages merely of diſcovery, which have for their object the communication of bleſſings to ſavage nations, and the enlargement of the field of ſcience.

Theſe benefits, it will perhaps be alleged, are the price of their blood, becauſe theſe ſavage tribes are to be reſtrained only by muſtering a force, which, becoming fatal to the navigators themſelves, occaſions a double crime in the eyes of philoſophy and of nature.

Let us conſult the navigators who have made themſelves known by their moderation; their relations demonſtrate, that by employing the means which prudence dictates, it is eaſy to reſtrain ſavages by the diſplay of force ſimply: ſoon conceiving an attachment, from benefits received, to navigators whom they reſpect, they are ſuſceptible of gratitude, and conſequently of every other moral feeling.

Juſtice muſt be done to the motive which has miſled thoſe philoſophers; that reſpectable motive is humanity. We ought, then, henceforth to be agreed, as to the conduct of our navigators, in obſerving their extreme tenderneſs where the life of ſavages is concerned, who deſtroy one another on the ſlighteſt pretext; in contemplating the ferocity

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of these last, softened down by civilization, and the immense quantity of blood spared by the abolition of human sacrifices, so shocking to humanity, and yet so generally practised among savage nations.

DECREE

OF THE

NATIONAL ASSEMBLY,

OF FEBRUARY 9TH, 1791.

THE National Aſſembly, having heard the report of the united committees of agriculture, commerce, and the marine, decrees,

That the King be requeſted to iſſue orders to all ambaſſadors, reſidents, conſuls, national agents, employed at the courts of the ſeveral maritime powers, to uſe their influence with the reſpective ſovereigns at whoſe courts they reſide, in the name of humanity, and of the arts and ſciences, to charge all navigators and agents whatever, who act under their inſtructions, in whatever place of the globe they may be, but eſpecially in the ſouthern parts of the South Sea, to make every enquiry in their power reſpecting the two French frigates *Bouſſole* and *l'Aſtrolabe*, commanded by M. de la Pérouſe, and alſo reſpecting their crews, in the view of obtaining ſuch information as may aſcertain their exiſtence or their ſhipwreck; to the end that, in caſe M. de la Pérouſe and his fellow navigators ſhall be found or heard of, no matter in what place, all poſſible aſſiſtance may be given them, and means procured for aſſiſting them to return to their country, as well as for enabling them to recover and carry off whatever property they may poſſeſs: the National Aſſembly becoming bound to indemnify, and even to reward, according to the importance of the ſervice, the perſon or perſons who ſhall lend aſſiſtance to theſe navigators, obtain information concerning them, or ſo much as procure for France the reſtitution of ſuch papers or other effects

of whatever kind, which belonged, or might have belonged to their expedition.

Decrees, farther, that the King be requeſted to iſſue orders for the equipment of one or more ſhips, on board of which ſhall embark men of ſcience, naturaliſts and draughtſmen, and to inſtruct the commanders employed in the expedition, to fulfil the twofold miſſion of ſearching after M. de la Pérouſe, agreeably to the documents, rules and orders which ſhall be given them, and at the ſame time to purſue reſearches relative to ſcience and commerce, taking every meaſure to render the expedition, independently of the enquiry after M. de la Pérouſe, or even in the event of recovering him, or of procuring intelligence concerning him, uſeful and advantageous to navigation, geography, to commerce, to the arts and ſciences.

Compared with the original, by us the Preſident and Secretaries of the National Aſſembly. At Paris, this 24th of February, 1791.

(Signed) DUPORT, Preſident;
LIORÉ, BOUSSION } Secretaries

DECREE OF THE NATIONAL ASSEMBLY,

OF APRIL 22d, 1791.

THE National Aſſembly decrees, that the relations and charts ſent by M. de la Pérouſe, of part of his voyage, up to his arrival in Botany Bay, be printed and engraved at the expence of the nation, and that this expence be defrayed out of the fund of two millions ordered by article XIV of the decree of Auguſt 3d, 1790;

Decrees,

Decrees, that as ſoon as the edition ſhall be completed, and as many copies ſet apart as the King may be pleaſed to diſpoſe of, the reſt ſhall be ſent to Madame de la Pérouſe, together with a copy of the preſent decree, in teſtimony of the public ſatisfaction with M. de la Pérouſe's devotedneſs to the general welfare, and to the improvement of human knowledge and uſeful diſcovery;

Decrees, that M. de la Pérouſe ſhall remain on the liſt of naval officers till the return of the ſhips diſpatched in ſearch of him, and that his pay be remitted to his wife, conformably to the diſpoſal which he had made of it previous to his departure.

Compared with the original, by us the Preſident and Secretaries of the National Aſſembly. At Paris, this 25th of April, 1791.

(Signed) REUBELL, Preſident;
GOUPIL-PREFELN
MOUGIN-ROQUEFORT } Secretaries
ROGER

MEMORIAL FROM THE KING,

To ſerve as particular Inſtructions to the Sieur de la Pérouſe, Captain in the Navy, commanding the Frigates la Bouſſole and l'Aſtrolabe.—*26th June*, 1785.

HIS Majeſty having given directions to equip in the harbour of Breſt the frigates la Bouſſole, commanded by the Sieur de la Pérouſe, and l'Aſtrolabe by the Sieur de Langle, captains in his navy, to be employed on a voyage of diſcovery; hereby notifies to the Sieur de la Pérouſe, whom he has appointed commander in chief of theſe two veſſels, the particular ſervices which he will have to execute in the courſe of the important expedition committed to his care.

The different objects which his Majesty had in view, when he issued orders respecting this voyage, render it necessary to divide the present instructions into several heads, in order to explain with greater clearness to the Sieur de la Pérouse, his Majesty's particular intentions as to each of the objects which are to engage his attention.

The first part will contain his itinerary, or the sketch of his voyage, according to the order of the discoveries to be made, or carried to perfection; and to this will be annexed a collection of geographical and historic notes, to serve him as a guide in the various researches which he is to pursue.

The second part will treat of objects relative to politics and to commerce.

The third will explain operations relative to astronomy, to geography, to navigation, to physics, and to the different branches of natural history, and will regulate the several functions of the astronomers, the naturalists, the historians, the scientific characters, and the artists employed in the expedition.

The fourth part will prescribe to the Sieur de la Pérouse, the conduct which it may be proper for him to observe with respect to the savage nations, and the natives of different countries, which he may discover or have occasion to visit.

Finally, the fifth will indicate to him the precautions to be observed for the preservation of the health of his crews *.

* The particulars detailed, in the original work, under each of these heads, are numerous, and to the generality of readers would probably appear tedious and uninteresting. Instead, therefore, of giving an exact translation, the editor thinks himself warranted to present a concise and general view of de la Pérouse's instructions, that the reader may not be detained too long in the threshold.

PART FIRST.

Sketch of the Voyage.

ON leaving Breſt de la Pérouſe is directed to ſteer for Madeira, and there take in wine, and thence for St. Jago, to complete his wood and water, and lay in refreſhments: he is to croſs the line in the 29th or 30th degree of weſt longitude from the meridian of Paris, and try to hit Pennedo de San-Pedro, and fix its poſition; to proceed to Trinidad to wood and water, and on leaving it to run into the latitude of Iſle Grand de la Roche, but to deſiſt from looking for this iſland, if he does not fall in with it before reaching 50° weſt longitude: He is to run into the latitude of Terre de la Roche, Cook's Iſle of Georgia, and confine his viſit to its ſouthern coaſt, hitherto inexplored. He is then to look out for Sandwich Land in about 57° ſouth, and having aſcertained its extent, to ſteer for Staten Land, try to double Cape Horn, and anchor in Chriſtmas Sound, on the ſouth-weſt coaſt of Terra del Fuego, and take in wood and water. In the event of being unable to get to the weſt by the winds and currents that oppoſe that paſſage, he is to make for the coaſt of Braſil, touching if neceſſary at Falkland's Iſlands, which preſent a variety of accommodations to the mariner. He is afterwards to paſs Strait le Mair, or double Staten Land by the eaſt, in order to reach Port Chriſtmas Sound, which, at all events, was to be the firſt place of rendezvous for the ſhips in caſe of ſeparation.

On leaving Chriſtmas Sound, he is to ſhape his courſe ſo as to cut the meridian of 85° weſt in the latitude of 57° ſouth, and purſue this parallel up to 95° of longitude, in queſt of Drake's Port and Land. He is then to proceed to cut the meridian of 105° in the parallel of 38°, and continue in it to 115°

longitude, looking out for land ſaid to be diſcovered by the Spaniards in 1714. He is then to get into the latitude of 27° 5′ on the meridian of 108° weſt, looking out for Eaſter Iſland, where he is to anchor, and execute a particular article of his inſtructions. He is thence to return to the latitude of 32° on the meridian of 120° weſt, and keep on that parallel to 135° of longitude, in ſearch of land ſeen by the Spaniards in 1773. Here the frigates are to ſeparate. The firſt is to proceed to the intermediate parallel between 16° and 17°, and perſevere in it from 135° to 150° to the weſt of Paris, and then ſteer for Otaheite, it being preſumable that in this track new inhabited iſlands may be diſcovered. The ſecond frigate, from the ſame point of departure, is to run into 25° 12′ ſouth latitude, and endeavour to keep in this parallel, beginning at the meridian of 131° or 132°, and look out for Pitcairn's Iſland, diſcovered by Carteret in 1767, in the view of aſcertaining its longitude, becauſe the exact knowledge of its poſition would ſerve to determine that of the other iſlands or lands afterwards diſcovered by Carteret. On leaving Pitcairn's Iſland, the ſecond frigate is to ſteer weſtward and then to the north-weſt, looking out in ſucceſſion for the iſlands of the Incarnation, of St. John Baptiſt, of St. Elmo, of the Four Crowns, of St. Michael, and of the Converſion of St. Paul, diſcovered by Quiros in 1606, and ſuppoſed to be ſituated to the ſouth-eaſt of Otaheite. The ſecond frigate will thus, in a north-eaſt courſe, arrive at the meridian of 150° weſt, and at 19° ſouth latitude, and then ſteer for Otaheite, where it is preſumed both veſſels may arrive about the end of April; and this to be their ſecond place of rendezvous.

De la Pérouſe's ſtay at Otaheite is limited to one month; he is then to viſit, on his way, the iſlands of Huaheine, Ulietea, Otaha, Bolabola, and the other Society Iſlands, to procure ſupplemental proviſions,

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to furniſh the inhabitants with uſeful European articles, to ſow grain, to plant vegetables, trees, &c. which might hereafter afford ſupplies to the navigators of thoſe remote ſeas. He is to ſteer to the north-weſt, from the Society Iſlands, to get into the latitude of the iſland of St. Bernard of Quiros, about 11° ſouth, but not to purſue his ſearch after it beyond the meridians of 158° to 162° weſt longitude: he is then to get into the parallel of 5° ſouth, and to the meridian of 166° to 167°, and then ſteer to the ſouth-weſt, and, in that direction, croſs the ſea which waſhes the northern ſhores of the archipelago of the Friendly Iſlands, where he will probably find others inhabited which have not yet been viſited by any European. He is to look for the iſland of Bella Nacion of Quiros between the parallel of 11° and that of 11° 30′, from the meridian of 169° to 171° longitude; and for the Navigators' Iſlands of Bougainville one after another, and thence proceed to the Friendly Iſles for refreſhments. He is then to get into the latitude of the Iſle of Pines, ſituated on the ſouth-eaſt point of New Caledonia, and aſcertain whether that land be a ſingle iſland, or compoſed of ſeveral. If he can make Queen Charlotte's Iſlands, he is to try to reconnoitre the iſland Santa-Cruz of Mendana, and determine its extent ſouthward. Should contrary winds prevents this, he is to make for Deliverance Iſlands, and aſcertain whether the Terre des Arſacides, diſcovered by Surville in 1769, is not compoſed of a cluſter of iſlands, which he will endeavour to particularize. From Cape Deliverance he is to ſteer for Endeavour Strait, and in paſſing it, try to aſcertain whether the land of Louiſiade be contiguous to that of New Guinea, and examine the hitherto inexplored coaſt from Cape Deliverance to the iſland of St. Bartholomew. He is deſired to ſurvey the gulf of Carpentaria, paying cloſe attention, at the ſame time, to the ſtate of the north-weſt monſoon, ſo as to make

ſure of his paſſage round the ſouth-weſt point of the iſle of Timor before the twentieth of November. In caſe he ſhould not have been able to procure refreſhments, where he may have touched ſince he left the Friendly Iſles, he is to ſtop at Prince's Iſland, at the entrance of the ſtraits of Sunda. On leaving it, and quitting the channel to the north of New Holland, he will ſhape his courſe ſo as to examine the weſtern coaſt of that land, and begin his ſurvey as near the equator as the wind will permit. He is then to take a more particular inſpection of its ſouthern coaſt, which will bring him to the extremity of Van-Dieman's Land at Adventure Bay, or Fredric-Henry Bay; from whence he will make for Cook's Straits, and anchor in Queen-Charlotte's Sound ſituated in that ſtrait, which ſeparates the two iſlands whereof New Zealand is formed. This port is to be the third place of rendezvous to the ſhips in caſe of ſeparation. Here he can refit, and provide himſelf with refreſhments, wood, and water. It is preſumed that he may be in a condition to ſail from this port early in March, 1787.

On leaving Cook's Straits, he is to get into the parallel of 41° to 42°, and keep in it till he reach the meridian of 130° weſt. He is thence to ſtand to the north, in order to get to windward, and into the latitude of the Marqueſas, where he is to ſtop, and take in neceſſaries in the port Madre de Dios on the weſt coaſt of Iſle Santa Chriſtiana, called by Cook Reſolution Bay. This is to be the fourth rendezvous in caſe of parting company. About two months are allowed for this paſſage.

On quitting the Marqueſas, if the wind permits, he may viſit ſome of the iſlands to the eaſt of Sandwich Iſles, he is then to proceed to theſe laſt and lay in proviſions, but to make no ſtay. Thence he is to make the beſt of his way toward the north-weſt coaſt of America, ſtanding to the north as far as 30°, to

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get out of the trade winds, and gain that coaſt in the latitude 36° 20′, at Punta de Pinos, ſouth of Port Monterey. He is ſuppoſed to reach this from the 10th to the 15th of July. In proſecuting his reſearches he is to avoid the parts which have been ſurveyed by Cook, but carefully to examine whether there may not be ſome river, gulf, or inland lake, forming a communication with Hudſon's Bay. He is to purſue his ſurveys up to Behring's Bay and Mount St. Elias, viſiting ports Bucarelli and de los Remedios, diſcovered by the Spaniards in 1775. Hence he is to direct his courſe toward the Shumagin Iſlands, near the peninſula of Alaſka, and then viſit the archipelago of the Aleutian Iſlands, and after them the two cluſters of iſlands to the weſtward, whoſe number and true poſition are unknown, and which all together form, with the coaſts of Aſia and America, the grand northern baſin or gulf. Having completed this ſurvey, he is to ſtop at port Awatſcha, or St. Peter and St. Paul, on the ſouth-eaſtern extremity of the peninſula of Kamtſchatka, which he may reach toward the 15th to the 20th of September; and this port will be the fifth rendezvous in caſe of ſeparation. Here he will provide himſelf with neceſſaries, and procure information requiſite toward making ſure of proviſions on his return thither in 1788; and order matters ſo as to be ready to put to ſea by the 10th of October.

He is to coaſt along and examine all the Kurile Iſlands, the north-eaſt coaſt, the eaſt, and the ſouth of Japan; and, according to the ſtate of the weather, extend his reſearches to the iſlands on the eaſt and on the ſouth of the Japaneſe, and to the Lekeyo Iſlands, as far as Formoſa. This ſurvey finiſhed, he is to put into Macao and Canton, or Manilla, according to circumſtances. This port will be the ſixth rendezvous in caſe of ſeparation. It is preſumed he may reach it by the end of 1787.

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Here he is to refit and victual his ships, and wait in port the return of the south-west monsoon, which usually sets in about the beginning of March, with permission, however, to remain till the first of April, if the crews have need of longer rest, and if he shall judge that a navigation northward would be hazardous prior to that period. From this port he is to shape his course so as to pass through the strait which separates Formosa from the coast of China. He is carefully to examine the western coast of Corea, and the gulf of Hoan-hay, taking care not to stand in too far, but always to keep it in his power easily to weather the south coast of Corea with a south-west or south wind. He is then to examine the eastern coast of this peninsula, that of Tartary, where a pearl fishery is established, and that of Japan opposite to it. He is to pass the strait of Tessoy, and visit the lands known by the name of Yesso, and that which the Dutch call Staten Land, and the Russians the Isle of Nadezda, of which we have no certain information. He will now finish his survey of the Kurile Islands, and force his way through the frith which separates some of them, as near as possible to the southern point of Kamtschatka; and come to an anchor in the port of Awatscha, the seventh rendezvous in case of separation.

Having there refitted and victualled, he is to put to sea early in August, and run into the latitude of 37° 30′ north, on the meridian of 180°. Hence he is to steer westward, looking out for land said to be discovered by the Spaniards in 1610, and to prosecute this research to the meridian of 165° east: he is then to steer south-west, and south-south-west, looking out for the islands scattered over those seas to the north-east of the Marianne Islands. He may put into Tinian, but regulate his stay there, and his course afterward, by the north-easterly monsoon, which does not set in, to the north of the line, till October, so that, on

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leaving Tinean, he may have it in his power to ſurvey the New Carolinas, to the ſouth-weſt of Guahain, one of the Mariannes, and to the eaſt of Mindanao, one of the Philippines. This ſurvey to be purſued as far as St. Andrew's Iſlands. He is after that to ſtop a fortnight at Mindanao to take in proviſions and refreſhments; then to ſteer for the Moluccas, and anchor at Ternate to take in farther ſupplies. As the monſoon will not permit him to paſs the Straits of Sunda, he muſt avail himſelf of the variable winds near the equator, to paſs between Ceram and Bourro, or between Bourro and Bouton, and endeavour to force a paſſage between ſome of the iſlands to the eaſt or weſt of Timor. Having then probably run beyond the parallel of 10° ſouth, he will find himſelf out of the north-weſt monſoon, and be able with eaſe, with the wind from the eaſt and ſouth-eaſt, to make the Iſle of France, which will be the eighth rendezvous for the ſhips in caſe of ſeparation.

He is to remain there no longer than is abſolutely neceſſary to prepare for his return to Europe. On leaving it, he is to run into the mean parallel between 54° and 55° ſouth, and look out for Cape Circumciſion, diſcovered in 1739 by Lozier Bouvet. Croſſing this latitude at 15° eaſt, he will continue in the ſame parallel to the meridian of Paris, or of no longitude, and then give up the ſearch. Should he then judge that the ſhips are not ſufficiently provided with neceſſaries, he is to put into the Cape of Good Hope to ſupply them. This to be the ninth rendezvous in caſe of ſeparation.

He is to endeavour, on his return to Europe, to make Gough's Iſland, and thoſe of Alvarez, of Triſtan d'Acunha, of Saxenberg, and Dos Picos, and if he find them, aſcertain their true poſition. He will then ſteer for Breſt, where he will probably arrive in July or Auguſt 1789.

Though this is the track ſketched for M. de la Pérouſe,

rouſe, in his Majeſty's inſtructions, he is veſted nevertheleſs with a diſcretionary power of deviating from it according to circumſtances, provided that the main object of the expedition be kept continually in view.

PART SECOND.

Objects relative to Politics and Commerce.

I. The ſtay which the Sieur de la Pérouſe is to make at Madeira, and at St. Jago, will be too ſhort to admit of his obtaining exact information reſpecting the ſtate of thoſe Portugueze colonies; he will, however, procure intelligence reſpecting the force which Portugal keeps up in them, reſpecting the trade which the Engliſh and other nations carry on there, and reſpecting the leading objects which it may be intereſting to know.

II. He will aſcertain whether the Engliſh have entirely evacuated Trinidad, whether Portugal has formed an eſtabliſhment in it, and of what it conſiſts.

III. Should he hit the Iſle Grande de la Roche, he will ſatisfy himſelf whether it contains any ſafe and commodious harbour, capable of ſupplying wood and water; what accommodation it preſents for the formation of a ſettlement, in caſe the ſouthern whale-fiſhery ſhould attract French adventurers that way; whether there is any poſt which could be eaſily fortified, and defended by a ſmall garriſon, at a diſtance ſo great from France.

IV. He will examine Georgia in the ſame view. But this iſland, being in a higher latitude, preſents leſs attraction, and the ice which obſtructs the navigation during part of the year, would probably diſcourage the fiſhermen from making this a place of rendezvous or retreat.

V. The iſlands of the great equatorial Ocean preſent few ſubjects of obſervation relative to politics and commerce, from their immenſe diſtance, except perhaps

perhaps to the crown of Spain. M. de la Perouſe is, however, directed to attend to the climate, and the productions of the different iſles of that ocean which he may viſit, to the manners and cuſtoms of the natives, their religion, form of government, mode of making war, arms, veſſels, diſtinctive character of each tribe, what they have in common with other ſavage, and with civilized, nations; and the particular diſtinction of each. In ſuch of thoſe iſlands as have been viſited by Europeans, he will endeavour to find out whether the natives could diſtinguiſh the different nations of their viſitors, and what opinion they may have formed of each of them in particular. He will enquire what uſe they have made of the various articles of merchandize, metals, tools, ſtuffs, &c. introduced into their country. He will inform himſelf whether the beaſts and birds left by Captain Cook in ſome of them have multiplied; what European ſeeds and pot-herbs have thriven beſt; what mode of culture is employed by the iſlanders; and what uſe they make of the produce. He will examine the facts related by former navigators, and ſupply their omiſſions.

At Eaſter Iſland he will ſatisfy himſelf whether the human ſpecies is there on the decreaſe, which Captain Cook's obſervation and belief render credible.

On touching at Huaheine, he will try to get acquainted with Omai, whom the Engliſh navigator ſettled there in the courſe of his third voyage, and learn what treatment he received from his fellow-iſlanders after the Engliſh were gone, and what uſe he himſelf had made of the knowledge he muſt have acquired in Europe, toward the improvement of his own country.

VI. In his ſurvey of the iſlands of the great equatorial Ocean, and the coaſts of the continents, ſhould he meet at ſea any veſſels belonging to a foreign power, he will conduct himſelf conformably to the modes

modes of behaviour eſtabliſhed among poliſhed and friendly nations; and on meeting any ſuch in a port pertaining to a nation conſidered as ſavage, he will concert meaſures with the commander of the foreign veſſel, effectually to prevent all altercation between the crews which may happen to be on ſhore together, and to ſecure mutual aſſiſtance in caſe either ſhould be attacked by the iſlanders.

VII. In his viſit to New Caledonia, Queen-Charlotte's Iſlands, the land of the Arſacides, and Louiſiade, he will carefully examine the natural productions of thoſe countries, which being ſituated in the torid zone, and in the ſame latitude with Peru, may open a new field of commercial ſpeculation, and, without truſting to the exaggerated accounts given by the ancient Spaniſh navigators of the fertility and riches of ſome of the iſlands which they diſcovered in this part of the world, he will obſerve only that approximations founded on geographical combination, and on information derived from modern voyages, furniſh room to think that the land diſcovered by Bougainville in 1768, and by Surville in 1769, may be the iſlands diſcovered by Mendana in 1567, and ſince known by the name of Solomon's Iſlands, from their real or ſuppoſed fruitfulneſs.

He will examine, with equal attention, the north and weſt coaſts of New Holland, thoſe parts particularly which, being within the torrid zone, may partake of the productions peculiar to countries ſituated in the ſame latitudes.

VIII. He will have to repeat the ſame enquiries at the iſlands of New Zealand, of which the relations of Engliſh navigators have given an ample detail. But, during his ſtay in Queen-Charlotte's channel, he will make it his buſineſs to find out whether England has formed or projected any ſettlement there, and inform himſelf on the ſpot reſpecting the ſtate, ſtrength, and object, of ſuch eſtabliſhment.

IX. If

IX. If in reconnoitring the north-weſt coaſt of America, he ſhall fall in with any forts or factories belonging to his Catholic Majeſty, he ſhall carefully avoid giving offence to the officers commanding ſuch ſettlements, and improve the ties of blood and amity which unite the two ſovereigns, as the means of procuring ſuch aſſiſtance and refreſhments as the country may afford. He will endeavour to obtain information reſpecting the ſtate, ſtrength, and object, of thoſe Spaniſh ſettlements. He will enquire at what latitude peltry becomes procurable; what quantity the native Americans are able to furniſh; what articles are beſt adapted to the fur trade; what conveniency preſents for forming an eſtabliſhment on that coaſt, ſuppoſing this branch of commerce were to engage the attention of the French merchant, in the proſpect of importing peltry into China, where it would find a certain market. He will likewiſe procure information reſpecting the ſpecies of ſkins to be purchaſed, and whether that of the otter, which fetches the higheſt price in Aſia, is the moſt common in America. He will bring to France ſamples of all the different furs he is able to procure: and as, in the proſecution of his voyage, he is to ſtop ſome time in China, perhaps touch at Japan, he will inform himſelf what ſpecies of ſkin promiſes to have the eaſieſt, ſafeſt, and moſt lucrative ſale in thoſe two empires, and what benefit France may derive from this new branch of commerce. Finally, he will endeavour, during his ſtay on the coaſt of America, to diſcover whether the Hudſon's Bay ſettlements, the forts or factories of the interior, or any province of the United States, have opened through the intervention of wandering ſavages, any intercourſe of commerce or barter with the tribes on the weſt coaſt.

X. It is probable that in viſiting the Aleutian Iſlands, and the other cluſters to the ſouth of the great baſin of the north, he may fall in with ſome Ruſſian

Ruſſian ſettlements. He will try to find out their conſtitution, their force, their object; what is the navigation of the Ruſſians in thoſe ſeas, what ſhips, what men they employ in it; how far their commerce extends; whether any of thoſe iſles acknowledge the ſovereignty of Ruſſia, or are all independent; finally, whether the Ruſſians have not been advancing nearer and nearer to the continent of America. He will avail himſelf of his ſtay at Awatſcha to extend his information on theſe particulars, and to procure, at the ſame time, all poſſible light reſpecting the Kurile Iſles, the land of Jeſſo, and the empire of Japan.

XI. He will examine the Kurile iſles and the land of Jeſſo with all poſſible circumſpection, not only in the view of objects relative to navigation in ſeas unknown to Europeans, and underſtood to be tempeſtuous, but alſo in conſideration of the intercourſe which may take place with the inhabitants of thoſe countries, whoſe character and manners muſt have an affinity to thoſe of the Japaneſe, who may have ſubjugated part of them, and maintain a communication with the reſt. As Ruſſia extends her ſovereignty over only ſome of the Kuriles, adjacent to Kamtſchatka, he will examine whether, among the ſouthern and independent iſlands, ſome one may not be found on which, in caſe of a peltry trade being opened for France, it might be poſſible to form a ſettlement or factory, which could be ſecured againſt every inſult on the part of the iſlanders.

XII. He will reconnoitre the eaſt and north-eaſt coaſt of Japan, and anchor in ſome of its ports, to obtain certain information whether its government actually oppoſes invincible obſtacles to all eſtabliſhment, to every operation of commerce or barter on the part of the Europeans; and whether, by the attraction of peltry, an object at once of utility and luxury to the Japaneſe, it might not be poſſible to prevail

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on the ports to the eaſt and north-eaſt, to admit veſſels loaded with this commodity, and to give in exchange the teas, the ſilks, and the other productions of their ſoil, and the articles of their manufacture.

XIII. On his arrival at Macao, he ſhall take the meaſures neceſſary to facilitate his wintering at Canton. For this purpoſe he will addreſs himſelf to the Sieur Vieillard, his Majeſty's conſul in China, and engage him to take the proper ſteps with the Chineſe government to obtain permiſſion. He will avail himſelf of his ſtay there, to acquire accurate information reſpecting the actual ſtate of commerce between European nations and Canton, under every relation which it is of importance to know. He will procure intelligence of every particular that may aſſiſt his farther navigation in the ſeas north of China, on the coaſts of Corea and eaſt Tartary, and all the other lands to be viſited in thoſe parts. He will ſecure, if poſſible, a Chineſe and Japaneſe interpreter, and a Ruſſian one for his ſecond call at Awatſcha; making an agreement with them for the time they are to be in the ſervice of the ſhip, and on his return, will put them aſhore at Mindanao or on the Moluccas.

XIV. He muſt be apprized, that Japaneſe pirates ſometimes ſwarm in the ſea ſurrounded by Japan, Corea, and Tartary. The feebleneſs of their veſſels renders no other precaution neceſſary, except being on his guard againſt ſurprize by night: but it might be of advantage to hail one of them, and engage him, by preſents and promiſes, to pilot his Majeſty's ſhips on the excurſion to Jeſſo, part of which is ſuppoſed to be under the dominion of Japan; in paſſing the ſtraits of Teſſoy, with which the Japaneſe muſt be acquainted; and in reconnoitring ſuch of the Kurile Iſles as they are in the habit of frequenting. Such a pilot might likewiſe be uſeful in viſiting ſome port on the weſt coaſt of Japan, in caſe circumſtances ſhould not have permitted him to land on any point

of the eaſt or north-eaſt coaſt. But whatever uſe may be made of ſuch pilot, he is not to be truſted implicitly. M. de la Pérouſe will likewiſe, if poſſible, engage ſome fiſhermen of the Kuriles to pilot him through the iſlands adjoining to Kamtſchatka. He will thus endeavour, in ſtanding northward, to complete his ſurvey of the iſlands which he could not reconnoitre on his way from Awatſcha to Macao, and to ſupply on the weſtern coaſt of Japan, what he was not able to accompliſh on the eaſt and north-eaſt. His ſurvey of the coaſts of Corea and Chineſe Tartary muſt be taken with great circumſpection; the Chineſe government being extremely punctilious, he ought not to diſplay his colours on that coaſt, nor permit any operation which might give offence, leſt it ſhould be reſented on French ſhips trading to Canton.

XV. In examining the Carolina Iſlands, known only by name to moſt of the nations of Europe, he will take care to inform himſelf whether the Spaniards have formed any ſettlement there. He will endeavour to acquire the knowledge of the productions of thoſe iſlands, and of all thoſe which he may diſcover to the north-eaſt, and to the weſt-ſouth-weſt of the Mariannes.

XVI. In ſtopping at Tinian he will procure information reſpecting the ſettlements, the ſtrength, and the commerce of the Spaniards in that archipelago and its vicinity. He will make the ſame inquiries at Mindanao, to learn, as far as poſſible, the political, military, and commercial ſtate of that nation in the Philippine Iſlands.

XVII. During his ſtay at the Moluccas he will carefully inform himſelf reſpecting the ſituation and the commerce of the Dutch in thoſe iſlands, and particularly in the view of knowing what advantages muſt reſult to the commerce of England, from the liberty which that power has obtained by her late treaty of peace

peace with Holland to navigate and traffic through the whole extent of the Adriatic ſeas; and he will endeavour to find out what uſe England has made of that liberty, and whether ſhe has yet been able, through this channel, to open any new vein of commerce with that part of the world.

XVIII. Should he put in to the Cape of Good Hope, he will procure accurate information reſpecting the actual ſtate of this colony; of the force which Holland, or the Dutch Eaſt India Company, keeps up there ſince the peace, and of the ſtate of the old and new fortifications which defend the town and anchorage.

XIX. In all the iſlands, and in all the ports of continents occupied or frequented by Europeans, where he may touch, he will prudently, as far as circumſtances permit, make every enquiry which may enable him to diſcover, in detail, the nature and extent of the commerce of each nation, the ſea and land force which each keeps up, the relations of intereſt or friendſhip which ſubſiſt between them and the chiefs or natives of the countries where they have ſettlements, and, in general, every thing that concerns politics and commerce.

PART THIRD.

Operations Relative to Aſtronomy, Geography, Navigation, Phyſics, and the different Branches of Natural Hiſtory.

I. Two aſtronomers having been appointed to act under the orders of the Sieur de la Pérouſe, on the expedition entruſted to his charge, and the two frigates being furniſhed with all the inſtruments of aſtronomy and navigation which need to be uſed by ſea or land, he will take care that, during the courſe of the voyage, neither of them neglect any opportu-

nity of making ſuch aſtronomical obſervations as may to him appear uſeful.

The object of greateſt importance toward the ſafety of navigation, is to aſcertain, with preciſion, the latitude and longitude of the places where he may land, or in ſight of which he may paſs. He will accordingly direct the aſtronomer employed on board each frigate to obſerve, with extreme accuracy, the movement of the marine time-keepers, and to avail himſelf of every favourable circumſtance for aſcertaining on ſhore how far the regularity of their motion has been kept up during the run, and to confirm, by compariſon, the change which may have taken place in their daily motion, for the purpoſe of keeping an account of that change, in order to determine with more preciſion the longitude of the iſlands, capes, or other remarkable points which he may have reconnoitred in the interval of the two obſervations.

As often as the ſtate of the ſky will permit, he muſt have lunar obſervations made to aſcertain the longitude of the veſſel, and to compare it with that which the time-keepers indicate at the ſame inſtant: he will take care to repeat obſervations of every kind, that the mean reſult of different operations may procure a more preciſe determination. On paſſing within ſight of any land where he does not mean to ſtop, he will take care to keep as nearly as poſſible on the parallel of that point, at the inſtant of obſerving the meridian altitude of the ſun or any other ſtar, from which to calculate the latitude of the ſhip; and continue in the ſame meridian at the moment of making obſervations for determining her longitude, in order to avoid all error of poſition or calculation of diſtance, which might injure the exactneſs of determination. He will, every day that the weather permits, obſerve the declination and inclination of the magnetic needle.

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On arriving in any port he will chooſe a convenient ſpot on which to pitch his tents, and raiſe his portable obſervatory, and place a guard over it.

Beſide obſervations relative to the determination of longitude and latitude, for which every known and practicable method is to be employed, and thoſe for aſcertaining the variation of the compaſs, he will not fail to obſerve every celeſtial phenomenon, which may be perceived; and, on every occaſion, procure for the aſtronomers all poſſible aſſiſtance toward enſuring the ſucceſs of their operations. His Majeſty is perſuaded, that the naval officers will manifeſt a proper zeal to make themſelves, in concert with the aſtronomers, every obſervation tending to improve navigation; and that they, in their turn, will be eager to impart to the officers the fruit of their ſtudies, and the theoretic knowledge which may contribute toward the perfection of the nautical art.

On board each of the frigates there muſt be kept a double journal, on which ſhall be entered every day, both at ſea and on ſhore, the aſtronomical obſervations, thoſe relating to the employment of time-pieces, and all others. Theſe obſervations ſhall be entered rough, that is ſimply indicating the quantity of degrees, minutes, &c. given by the inſtrument at the moment of obſervation, without any calculation, only pointing out the error of the inſtrument employed, if it has been aſcertained by the uſual verifications. Each of the aſtronomers to keep poſſeſſion of one of the journals, and the reſpective commanders the other. The aſtronomer ſhall beſides keep a ſecond journal, containing, day by day, all the obſervations made, and add, for each operation, all the calculations leading to the ultimate reſult. At the end of the voyage the Sieur de la Pérouſe ſhall take poſſeſſion of the two journals kept by the aſtronomers, after their truth has been certified by their ſignatures.

11. When he ſhall ſtop at places which it may be of importance to know in a military view, he will have the country ſurveyed by the chief engineer, who muſt give him a circumſtantial report of all his remarks, and of the plans he may have prepared. He will have exact charts drawn of all the coaſts and iſlands he may viſit; and if they are already known, he will aſcertain the exactneſs of preceding navigators. For this purpoſe, in navigating along coaſts or in ſight of iſlands, he muſt have them very exactly ſurveyed with the quadrant or azimuth compaſs, obſerving that the ſurveys, the moſt to be depended on for conſtructing charts, are thoſe by which one cape, or any other remarkable object, can be laid down by another.

He will employ the officers of the frigates, and the geographic engineer, carefully to lay down plans of coaſts, bays, ports, and anchoring grounds, which he may have an opportunity of inſpecting, and affix to each plan inſtructions which ſhall exhibit every thing relating to the appearance and bearing of coaſts, the getting in or out of harbours, the mode of anchorage and croſs-mooring, and the beſt ſituation for watering; the ſoundings, the quality of the bottom, the dangers, rocks and ſhoals; the prevailing winds, breezes, monſoons, the length of their duration, and the period of their change; in a word, every nautical detail that may be uſeful to a mariner. All plans of countries, coaſts, and harbours, muſt have duplicates, one copy to reſt with each of the captains; and, at the end of the voyage, the Sieur de la Pérouſe ſhall take poſſeſſion of the whole, with the inſtructions relative to them. His Majeſty leaves to him the fixing of the era when the decked boats are to be put together, which are on board each frigate in pieces: his ſtop at Otaheite may be the proper ſeaſon. Theſe boats may be employed to advantage in attending the frigates, whether on exploring the archipelagoes ſitua-

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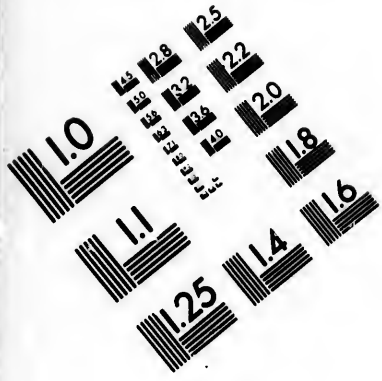
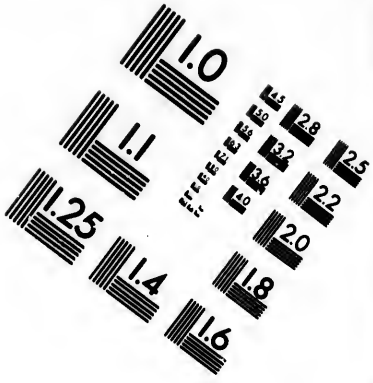
ted in the great equatorial Ocean, or ſurveying in detail the parts of the coaſt, and in ſounding bays, harbours, paſſages, and, in a word, on every ſervice that can be performed by a veſſel of ſmall draught of water, and capable of carrying ſeveral days proviſion for its crew.

III. The naturaliſts appointed to make obſervations analogous to their ſeveral purſuits, are to be employed each in his peculiar department. M. de la Pérouſe will preſcribe the objects of reſearch, and diſtribute the proper inſtruments and apparatus, taking care that no one have a complicated taſk, but that the zeal and intelligence of every individual may produce their complete effect toward the general ſucceſs of the expedition. He will communicate to them the memorial tranſmitted by the Academy of Sciences, pointing out the particular obſervations recommended to their attention.

He will in like manner communicate to the ſurgeons of the ſhips the memorial of the medical Society, that they may purſue their profeſſional reſearches to advantage. Both in the progreſs of ſailing, and in port, he will have a journal kept on board both veſſels of daily obſervations made on the ſtate of the weather, the winds, the currents, the variations of the atmoſphere, and every thing relating to meteorology. When in port he will obſerve the genius, character, manners, cuſtoms, temperament, language, government, and number of the inhabitants. He will examine the nature of the ſoil, and the productions of the different countries, and every thing relative to the natural hiſtory of the globe. He will collect natural curioſities both of the land and of the water; and have them claſſed, with a deſcriptive catalogue of each ſpecies, mentioning the places where they were found, the uſes to which the natives apply them, and, if they be plants, the virtues aſcribed to them. He will likewiſe collect and claſs the cloth-





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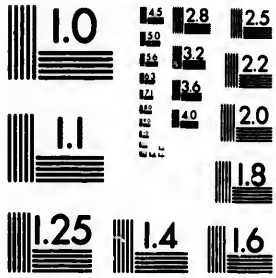

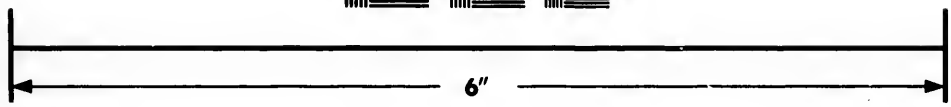

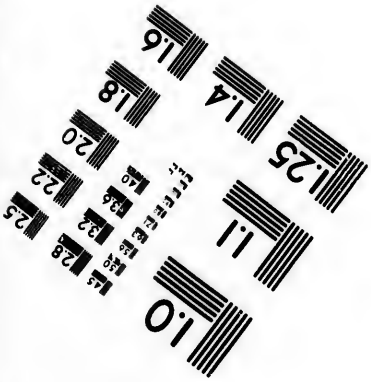

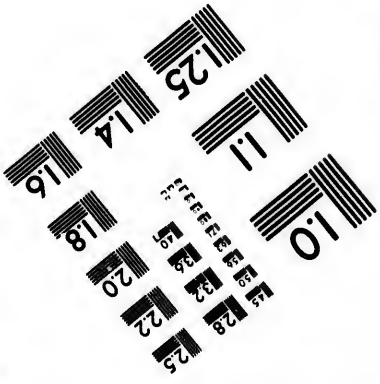

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ing, arms, ornaments, furniture, tools, muſical inſtruments, and all other effects uſed by the different nations he may viſit, and every article muſt be labelled and numbered correſpondently to the catalogue.

He will direct the draughtſmen to take drawings of all the remarkable land views and ſituations, portraits of the natives, their peculiar dreſs, ceremonies, paſtimes, edifices, boats, all the land and ſea productions of the three kingdoms, if drawings of theſe objects appear to him likely to facilitate the comprehenſion of deſcriptions given by the ſcientific gentlemen on board. All drawings made on the voyage, all boxes containing natural curioſities, with deſcriptions of them, and the collections of aſtronomical obſervations ſhall, at the end of the voyage, be put into the hands of the Sieur de la Perouſe; and no one of the literati or artiſts ſhall reſerve to himſelf, or for any other, any article of natural hiſtory, or other object, which M. de la Pérouſe ſhall deem worthy of a place in the collection deſigned for his Majeſty.

IV. Before entering the port of Breſt, at the end of the voyage, or before his arrival at the Cape of Good Hope, ſhould he ſtop there, he ſhall take poſſeſſion of all journals kept by the naval officers, aſtronomers, literati, artiſts, pilots, and all other perſons; enjoining them, on their word of honour, to obſerve a profound ſilence reſpecting the object of the expedition, and the diſcoveries made, with an aſſurance that their journals and papers ſhall be reſtored.

PART FOURTH.

Conduct to be obſerved toward the Natives of the different Countries.

The relations of former navigators have diſcloſed the characters and manners of part of the different nations with whom he may come into contact, both in the iſlands of the great ſouthern Ocean, and on the north-

north-weſt coaſt of America. He is thereby prepared to imitate the good conduct of ſome of his predeceſſors, and to ſhun the faults of others.

On his arrival in any port, he will endeavour to ingratiate himſelf with the chiefs, by expreſſing benevolence, and making preſents; he will ſecure the reſources which the place furniſhes for ſupplying the wants of his ſhips' companies, and employ all honourable means of forming intimacy with the natives. He will find out on what European commodities they ſet moſt value, and make up a proper aſſortment which may encourage them to barter. He will ſee the neceſſity of uſing every prudent precaution to maintain his ſuperiority againſt a multitude, without employing force; and, however well received by ſavages, he muſt ever ſhew himſelf in a ſtate of defence, leſt ſecurity on his part might tempt them to come on him by ſurprize. In no caſe ſhall he ſend a boat on ſhore but what is provided with arms and ammunition, and commanded by an officer, with orders never to loſe ſight of the boat under his charge, and always to leave ſome men to guard her. He muſt not permit any officer, ſeaman, or other to ſleep on ſhore, except on duty; and perſons obliged by actual ſervice to paſs the night on land, ſhall retire betimes to the tents erected to ſerve as obſervatories and magazines, with a guard placed over them under the command of an officer, to maintain good order among the ſeamen and ſoldiers, and to prevent, by active and unremitting vigilance, every attack or enterprize of the ſavages. He will take care to have the ſhips moored within reach to protect the ſettlement, and give inſtructions to the officer on guard reſpecting the ſignals to be made in caſe of alarm.

Theſe diſpoſitions being made, he will prepare for providing ſubſiſtence, and other neceſſaries for the ſhips' companies; and, having made a ſelection from the commodities with which the frigates are furniſhed, he

he will form a magazine on ſhore under protection of a guard: but as all the iſlanders of the South Sea have an irreſiſtible propenſity to ſteal, he will take care, that they may not be tempted by the ſight of too many objects in one place, to have no more goods brought aſhore every day but what are ſufficient for the daily demand. He will regulate the value of thoſe exchanges, and never allow the rate once fixed to be exceeded, leſt by giving, at firſt, too high a price for the articles to be procured, the natives ſhould afterwards refuſe to deal on lower terms He will open but one magazine for both frigates; and on purpoſe to maintain good order and prevent abuſe, he will ſpecially charge an officer to treat with the ſavages, and to ſelect the petty officers or others, who ſhall under his own inſpection perform the duty of the magazine. No officer, or other perſon on board, ſhall be permitted, under any pretence, to carry on any ſpecies of barter, without expreſs permiſſion from the Sieur de la Pérouſe, and after the rate of exchange is fixed. If any of the crew ſhall be found ſtealing the effects of the ſhip, or any of the commodities ſet apart to be exchanged, he muſt have him puniſhed ſeverely according to law, and more eſpecially ſuch as being in the ſervice of the magazine have abuſed his confidence, and ſecreted goods for carrying on a fraudulent trade. He will ſtrictly enjoin all under his command to maintain a good underſtanding with the natives, and try to conciliate their friendſhip by fair-dealing and kindneſs, and prohibit them, under the moſt rigorous penalties, to take by force what the inhabitants refuſed voluntarily to ſurrender.

The Sieur de la Pérouſe will, on every occaſion, treat the people he may viſit with gentleneſs and humanity; he will zealouſly exert himſelf to ameliorate their condition, by procuring for them the uſeful pot-herbs, fruits, and trees of Europe; by teaching them the method of cultivation, and the uſe they ought to make

make of thoſe preſents, the object of which is to multiply on their ſoil the productions neceſſary to nations which derive almoſt all their ſuſtenance from the ground.

Should imperious circumſtances, againſt which prudence ought to provide on an expedition of ſo long duration, ever oblige the Sieur de la Pérouſe to uſe ſuperior force, to procure the neceſſaries of life, that force is to be exerted with the utmoſt moderation, and every tranſgreſſion of orders to be puniſhed with extreme rigour. In every other caſe, if he cannot make ſure of the friendſhip of ſavages by kind treatment, he will endeavour to over-awe them by terror and threatenings, but never have recourſe to arms, except in the laſt extremity, that is, in caſes of ſelf-defence, and when moderation might endanger the ſhips, and the lives of Frenchmen entruſted to his care.

His Majeſty will conſider it as one of the auſpicious circumſtances of the expedition, that it terminate without coſting the life of a ſingle individual.

PART FIFTH.

Precautions to be employed for preſerving the Health of the Crews.

The Sieur de la Pérouſe being fully apprized of his Majeſty's wiſhes, that the propoſed expedition, ſo far from proving injurious to ſavage nations whom he may viſit, ſhould rather procure for them bleſſings which they want, muſt ſurely feel what particular attention he is bound to pay to the preſervation of the crews under his command.

The ſhips are amply provided with every article that can either prevent the diſeaſes of the ſea, or check their progreſs, as alſo with thoſe which are deſigned as ſubſtitutes for ordinary proviſions, and to correct their bad effects. He will take care that theſe cordials

dials and correctives be ſeaſonably applied, and with moderation; and will pay ſpecial attention to the reſources which may preſent themſelves in the ports where he may touch, to procure refreſhments and wholeſome food, in order to correct the effect of a long uſe of ſalted proviſions. He will uſe his own diſcretion in directing the proper mode of ſtowage of the frigates, and when in port, will cauſe to be inſpected and aired ſuch parts of the proviſions as diſcover a tendency to decay, in the view of ſtopping its progreſs.

He will neglect no opportunity of procuring freſh fiſh for his men, and of freſhening his ſalted ſtores by the methods put into his power, and ſucceſsfully practiſed by late navigators. He knows well that one of the precautions which moſt effectually contributes to the health of ſeamen, is unremitting attention to cleanlineſs, both in their perſons and in the ſhips. He will employ for this purpoſe all the known methods of ventilation, fumigation, perfuming for ſweetening and purifying the air in the hold, and between decks. He will every day, if poſſible, cauſe the ſeamens' hammocks and bedding be expoſed to the air: and that they may not neglect perſonal cleanlineſs, he will divide them into parties, and confide the inſpection of each diviſion to an officer, who ſhall once a week report to the captain the ſtate of the clothing, and the wants of his particular charge, and, upon an order from M. de la Pérouſe, the ſupplemental clothing which has been put on board ſhall be diſtributed among the crews, according to the regulation laid down by the commanding officer, and as circumſtances may require.

He will eſtabliſh the moſt exact diſcipline on board the frigates, and carefully guard againſt every relaxation in this reſpect. But the ſeverity neceſſary to all ſervice, eſpecially during an expedition of ſeveral years, will be tempered by the conſtant expreſſion of the

the paternal regard which he owes to the companions of his labours; and the King, knowing the sentiments with which he is animated, rests assured that he will unremittingly exert himself to procure for them all the accommodation and comfort compatible with the interests of the service, and the object of the embarkation. His Majesty could not give a more distinguished mark of the confidence he reposes in the Sieur de la Pérouse's zeal, capacity, and prudence, than by entrusting to his charge one of the most extensive enterprises ever projected. Preceding navigators in the career of discovery have left him great lessons and examples; but the King is persuaded that as ambitious of glory as his predecessors, as zealous for the extension of useful knowledge, and as persevering, he will one day merit himself to serve as a model to those who, animated by the same spirit, aim at the attainment of the same celebrity.

NOTE.

In forming a plan of navigation for the expedition confided to M. de la Pérouse, the object was to point out a tract not pursued by former navigators; this appeared the surest method of multiplying discovery, and of promoting the great work of attaining a complete description of the terrestrial globe. It was necessary, however, to indicate islands already known, as places of call where he was sure of procuring the means of subsistence, by the aid of barter for the commodities with which he was provided, and adapted to the tastes of the islanders. But in pointing out to the French commander ports already frequented, he is directed to find his way to them in tracks not hitherto pursued, and the commodities to be exchanged consist of many articles yet unknown to the islanders, which will convince them that the importers belong

belong to a nation different from any of their former viſitors. Various principles of calculation have been employed to eſtimate the duration of the ſeveral runs. In open ſeas the ſhips are ſuppoſed to make 30 leagues, under the trade winds, in 24 hours: 25 leagues only have been allowed to the ſame ſpace of time, in latitudes where it is prudent to lie to in the night; and only 20 leagues when the ſhips are on diſcovery, and in this caſe a certain number of days is added, to make up the time employed in reconnoitring. On theſe data are founded the durations of the runs and reſtings, but the whole ſubmitted to the direction of unforeſeen events and circumſtances. The whole voyage will neceſſarily exceed four years: the objects in view could not have been accompliſhed in leſs time. The periodical returns of the monſoons, to the north and ſouth of the line, are data to which the courſe muſt be ſubjected, and which mightily impede navigation in certain ſeas. This conſideration has required various combinations to regulate particular courſes, ſo as not greatly to increaſe the total duration of the voyage. The ſhips are amply provided with ſtores of every kind, more than ſufficient for four years, making allowance for the incidental ſupplies to be expected at the various ſtopping places. Captain Cook's laſt voyage laſted four years, two months, and twenty-two days, and his ſhips were not provided as the King's will be. From the known character of M. de la Pérouſe, his voyage, it is expected, will leave nothing to future navigators, but the merit of giving more circumſtantial details reſpecting ſome portions of the globe.

All that remains is to indicate the method employed in conſtructing the hydrographic charts, to be tranſmitted to the commander, when approved of by his Majeſty.

A firſt chart of the Southern Ocean has been prepared, on which are traced, after the journals of navigators,

vigators, the courſes which led to diſcovery, and thoſe are indicated which are ſtill to be made or verified. This chart is conſtructed after the beſt French, Spaniſh, Engliſh, and Dutch charts, and regulated by aſtronomical obſervation, by which the poſition of the principal points of the continents and iſlands have been determined. The extent of the great Ocean, commonly called the *South Sea*, or Pacific Ocean, has rendered it neceſſary to divide it into three belts or zones; the 1ſt contains the great Southern Ocean, or the ſpace contained between the antarctic polar circle and the tropic of Capricorn; the 2d is the grand equatorial Ocean, or interval contained between the tropics; and the 3d, the grand boreal Ocean, or the ſea ſituated between the tropic of cancer and the arctic polar circle. As the courſe preſcribed is not to extend beyond the 60th parallel, north and ſouth, it was unneceſſary to trace on the charts the great boreal polar, or the great ſouthern polar Oceans.

In order to prepare a chart of the Great Ocean, the journals of all the navigators of the paſt and preſent century have been examined; their detailed plans have been conſulted, and, by reducing the ſcale, have been brought into the general chart. All the known tracks of ancient and modern navigators are traced on it, to bring into one view recent and ancient diſcoveries, and to prove, in ſeveral caſes, their identity. This general chart is the reſult of all that has been produced by navigators and geographers up to this day. To preſent in detail the materials employed would fill a volume. It is deemed ſufficient to ſubjoin to the King's inſtructions to M. de la Pérouſe, ſome geographical and hiſtoric notes on parts that need to be detailed; and to the general charts of the Great Ocean will be added thirty-ſeven other charts or original manuſcript plans of the leſs frequented parts of thoſe ſeas.

EX-

EXTRACTS

From M. de la Pérouſe's General Inſtructions.

26th June, 1785.

HIS Majeſty authorizes the Sieur de la Pérouſe to grant to his crews a bounty of ſome months pay, the quantity to be regulated by circumſtances, but that the amount of the bounties for the whole voyage ſhall not exceed a year's pay to each crew. Beſides theſe bounties, which he is to announce to the petty officers, ſeamen, and ſoldiers, in caſe they have merited them, he will inform the two crews that it is his Majeſty's intention, that the pay of ſuch as may die on the expedition, reckoning from the day of their death, ſhould go into a maſs to be diſtributed, as a farther bounty, among the ſurvivors of the crews to which the deceaſed reſpectively belonged; and that his pay up to the day of his death be accounted for to his family, as well as the value of his effects, if they have been given away.

NOTES GEOGRAPHICAL AND HISTORIC,

To be ſubjoined to the Memorial from the King, to ſerve as Particular Inſtructions to M. de la Pérouſe, Captain in the Navy, and Commander of the Frigates la Bouſſole and Aſtrolabe.

SOUTHERN ATLANTIC OCEAN.

1. The three rocks, ſituated S. S. W. of St. Jago, one of the Cape de Verds, as well as the French beacon and breakers ſeen by the Ceſar, in 1730, S. S. E. of the ſame iſland, are laid down after the Engliſh chart of the Atlantic, publiſhed at London, in 1777.

2. Pennedo de S. Pedro. The latitude is 55′ north, as M. Daprès ſays he obſerved in 1750: he ſettles its longitude

longitude at 29° west of Pari_, but from later and more accurate observation, it appears to be 34′ more to westward.

3. The shoals near the line are laid down conformably to the instructions of the Neptune Oriental.

4. The small Island of St. Paul, seen in the same latitude by the ship of le Vaillant, is laid down after *Sailing Directions for the East Indies*, London 1781; but it differs 35′ as to longitude.

5. Fernando de Noronha, is laid down conformably to Captain Cook's determination 3° 53′ south, 34° 53′ 50″ west from Paris.

6. St. Matthew's Island was discovered by a Portugueze, in 1525, but had been discovered 87 years before. It is laid down after the general chart of Cook's third voyage. Its position is however still uncertain.

7. The Islands Fernando Po, Prince's, St. Thomas, nd Annobon, are placed according to observations ade by Varella, a Spanish navigator, in 1779, as nder; Fernando Po, 3° 28′ north, 6° 30′ west from ris; Prince's, 1° 39′ north, 5° 2′ west; St. Thoas's, 20′ north, 4° 34′ west; Annobon, 1° 25′ south, ° 25′ west. Conformable to these longitudes, those f Cape Verd, Sierra Leone, the Islands of Los, and e Cape of Good Hope, where observations have een made in like manner, the positions of the different points on the west coast of Africa have been gulated.

8. Ascension Island is placed agreeably to Cook's bservations; middle of the island 8° south, 16° 50′ est from Paris.

9. Island of St. Helena is likewise placed conformably to Cook's and Halley's observations, at fort mes, 16° south according to Halley, 8° 11′ west, cording to Cook. But according to Dr. Maskelyne, oyal Observer at Greenwich, the latitude of St. Hena is 15° 55′ south, and its longitude, from an ob-

ſervation made by himſelf on the firſt of Jupiter's ſatellites, is 8° 9′ weſt.

10. The Iſland of Trinidad is placed according to its diſtance from Cape Frio, on the coaſt of Braſil, as given by Daprès; north coaſt, 20° 25′ ſouth, 32° 15′ weſt from Paris. Dos Picos is placed after the Dutch charts, ſubjecting its poſition to that of Trinidad.

11. Iſles of Martin-Vas, are three rocks lying relatively to each other north and ſouth, excepting the moſt northerly, which is thrown a little more to the weſt: their extent is not above a mile. Bouvet ſays that they are eight leagues diſtant, and lie ¼ north-eaſt from Trinidad, being in the ſame latitude with that iſland.

12. Iſland of Aſcençaon, on the coaſt of Braſil is placed after Daprès, 20° 25′ ſouth, 38° weſt. This poſition ſuppoſes its diſtance from Cape Frio to be 120 leagues.

13. Rock diſcovered in 1692, and Rock under water in 1701. Theſe dangers are placed after Dalrymple's chart of the South Sea.

14. Saxenburg, and iſland diſcovered by Lindeman, a Hollander, in 1670, in 30° 45′ ſouth, and about 22° weſt.

15. Kattendyke is laid down after Dalrymple's chart, and the general chart of Cook's third voyage.

16. Iſlands of Triſtan d'Acunha; their poſition is regulated after Daprès, who fixes them between 37° 10′ and 37° 45′ ſouth, and from 16° 30′ to 17° weſt, after a mean reſult between the different runs of ſeveral ſhips, which give 34° for the difference of meridian between thoſe iſles and the Cape of Good Hope, which is 16° 3′ 45″ eaſt of Paris. Halley places the ſouthmoſt of them in 37° 25′ ſouth. Beſides the anchoring ground on the north of the largeſt, there is a ſort of harbour to the eaſt of the ſouthmoſt point, not viſible in running down the coaſt, from the vaſt quantity of canes thrown down and floating acroſs in

certain

certain winds. It is about half a mile broad, and three fourths deep, in form of a horſe-ſhoe It has 28 fathoms water at the middle of the inlet, and 14 near the ſhore: the depth is likewiſe 14 fathom in the middle of the length, and 10 at the head of the harbour; the bottom is black ſand, and good holding ground.

17. Iſland of Diego d'Alvarez, is laid down after the general chart of Cook's third voyage, and its bearing and diſtance from the Iſlands of Triſtan d'Acunha, according as they are given in that chart, 38° 53′ ſouth, 13° weſt.

18. Gough's Iſland, ſo called from an Engliſh Eaſt-India captain, who diſcovered it in 1715. It is very high land, in 40° 15′ ſouth, and 1° 57′ weſt of Greenwich, that is, 4° 17′ weſt of Paris. Vincent, commander of the Oſterley Eaſt-Indiaman, found it in the latitude indicated by the diſcoverer, but from his own calculations, he reckons the longitude to be fixed too far to the eaſt by ſome degrees. This iſland is not known to French navigators: but as it may lie in the way of ſhips going directly to India or China, early in the ſeaſon, without touching at the cape, it appears an intereſting object to aſcertain its true poſition, and M. de la Pérouſe, it is hoped, may be able to accompliſh this.

19. Iſle Grande de la Roche can be laid down only by conjecture, from a relation extracted and tranſlated from a Spaniſh geographical work, printed at Madrid in 1690 *. In laying down the Iſle Grande, its poſition has been regulated by that of the firſt land which la Roche had diſcovered to the eaſt of Staten

* The French compiler here introduces a long quotation from the above-mentioned Spaniſh work, containing an account of la Roche's paſſage round Cape Horn, and ſubſequent diſcoveries, which we omitted, as foreign to the deſign of this publication. For the ſame reaſon we have not tranſlated many other tedious quotations and diſcuſſions.

Land, and which has recently been re-diſcovered, and called by Cook the Iſland of Georgia. There is reaſon to think that the Iſle Grand of la Roche is the ſame land which had been diſcovered by Americus Veſpuiſus, on his third voyage, in 1502.

20. Terre de la Roche, the Georgia of Cook, and laid down by him between 53° 57′ and 54° 57′ ſouth, and between 40° 33′ and 37° 54′ weſt.

21. Sandwich Land, diſcovered in 1775: it is laid down on the chart conformably to Cook's journal and determination.

22. Chriſtmas Sound, on the ſouth-weſt coaſt of Terra del Fuego, laid down after the journal and charts of Cook's ſecond voyage.

GREAT SOUTH SEA.

23. Drake's Iſland and Harbour, placed by geographers in 180 or 200 leagues W. S. W. from Cape Horn. Many accounts of Drake's voyage round the world have been publiſhed in England; they differ eſſentially from each other reſpecting the poſition of the lands diſcovered by that celebrated navigator, after his paſſage through the ſtraits of Magellan. It is not to be doubted that, if the weather favour M. de la Pérouſe, he will one day furniſh a verification, which ſhall ſerve to deſtroy for ever an error in geography. Cook, in 1769, and Furneaux, in 1775, purſued tracts which, if theſe lands exiſted at the place aſſigned them by geographers, muſt have enabled thoſe navigators, if not to ſee them, at leaſt to perceive ſome ſign, ſome indication of land; and it is well known that neither of them diſcerned the ſlighteſt trace.

24. Theodore Gerard's Land. He was among the firſt Dutch navigators who made a voyage in the Great Ocean; he was driven by a ſtorm in 1599, as far as 64° ſouth, where he diſcovered a mountainous country

country covered with ſnow, reſembling Norway. It is laid down at 16° weſt of the meridian of Cape Horn.

25. Land ſaid to have been ſeen by the Spaniards 1714, but of uncertain exiſtence and poſition. It is placed on the chart of the Great South Sea, 33° ſouth, and between 108° and 109° weſt. This poſition agrees with the opinion of Cook.

26. Eaſter Iſland, diſcovered in 1722 by Roggewein, a Dutchman, and viſited by Cook in 1774, who determined its poſition. The Spaniards touched here in 1770, and called it San Carlos. They place it at 27° 6′ ſouth, and 268° 19′ from the meridian of Teneriff, or 110° 41′ weſt from Paris, that is, they have carried it about 1½ degrees too far to the eaſt. The variation of the compaſs was there, according to the Spaniards, in 1770, 2° 30′ north-eaſt.

27. Iſlands ſaid to be ſeen by the Spaniards in 1773, 32° ſouth, and 130° weſt from Paris. This poſition has been adopted by Cook, but is ſtill diſputable.

GREAT EQUATORIAL OCEAN.

28. Iſlands of this vaſt Sea, between 26° and 10° ſouth, in the ſpace contained between 130° weſt, and 170° eaſt of Paris. For all theſe M. de la Pérouſe is referred to the voyages of Byron, Bougainville, Carteret, Wallis, Furneaux, and Cook, as containing every neceſſary geographical, phyſical, and hiſtorical detail, for the purſuit of his object. For the iſlands anciently diſcovered in thoſe latitudes, he is referred to the chart conſtructed on the obſervations made by Mendana, Quiros, Torrez, Maire, Schouten, Taſman, and Roggewein, with inſtructions to verify, by his own obſervation, the miſtakes of the ancient, rectified by modern, navigators. For this purpoſe he is furniſhed with an abſtract (1) of Magellan's voyage, in

1519; (2) of Mendana's, in 1567; (3) of Mendana's ſecond voyage, in 1595; (4) of the voyage of de Quiros and de Torrez, in 1606; (5) of the voyage of le Maire and Schouten, in 1616; (6) of Abel Taſman, in 1642; (7) and of Roggewein, in 1722.

29. New Caledonia. It does not appear that the ancient navigators knew any thing of this iſland. De la Pérouſe is referred to Cook's details of it, who diſcovered it on his ſecond voyage, and to the chart relative to its diſcovery.

30. Santa Cruz, diſcovered by Mendana on his ſecond voyage, or Egmont and Queen Charlotte's Iſlands, viſited by Carteret, in 1767.

31. Terra del Eſpiritu Santo, diſcovered by Quiros in 1606; or the Great Cyclades of Bougainville, in 1768, and the New Hebrides of Cook, in 1774.

All this part has been laid down on the chart of the Great Equatorial Ocean, after Cook's journal and obſervations.

32. Land of the Arſacides, diſcovered by Surville, in 1769. At the moment of diſcovery, the latitude of the veſſel was 6° 57′ ſouth, and her longitude, by calculation, 152° 28′ eaſt of Paris. But this longitude, corrected by that of New Zealand, as determined by Cook, muſt be 153° 45′ at the point where land was firſt deſcried.

33. Terres de la Louiſiade, diſcovered by Bougainville, in 1768. La Pérouſe is here referred to Bougainville's voyage.

34. Endeavour Straits, between New Holland and New Guinea. La Pérouſe is here referred to Hawkeſworth's collection of voyages round the world, vol. iii. p. 610, &c.

35. North and weſt coaſts of New Holland. There is nothing to offer that can be deemed authentic or ſufficiently detailed reſpecting this part of the greateſt iſland in the world. La Pérouſe is referred to Dampier's voyages, for the north coaſt, and to de Broſſe's

Navigations

Navigations aux Terres Auſtrales, for the north and weſtern coaſts, and he is furniſhed with a copy of the ſoundings, and other particulars extracted from the journals of the Engliſh navigators who have more recently viſited thoſe parts.

36. Van Diemen's Southern Land, part of the ſouth of New Holland. Conſult Cook's ſecond and third voyages.

37. New Zealand. Cook's voyages ſupply every thing to be wiſhed on this ſubject, as they contain, beſides aſtronomical and nautical obſervations, and deſcriptions, all the particular plans and charts conſtructed by Engliſh navigators.

38. The Marqueſas de Mendoça, diſcovered by Mendana, in 1595, and re-diſcovered by Cook, in 1774, to whoſe relation reference may be had for every thing that concerns their deſcription and geographical poſition.

39. Nublada, Rocca Partida, and others, E. S. E. of Sandwich Iſlands. They are laid down on the chart of the Great Equatorial Ocean, after that of Anſon's voyage, and which is copied from one found on board the Manilla galleon which he had captured.

40. Sandwich Iſlands, diſcovered by Cook, on his third voyage, in 1778. To him and Captain King we owe every detail which has reached us reſpecting thoſe iſlands.

GREAT NORTHERN OCEAN.

41. North-weſt coaſts of America, from port Monterey, ſituated toward 36° 42′ north, to the Aleutian Iſlands. In tracing the chart of thoſe coaſts of the Great Boreal Ocean, for the uſe of M. de la Pérouſe, the geographical poſitions laid down by the Spaniards are combined with thoſe of Cook, which laſt ſerve to rectify the former. He is deſired to verify facts by his own obſervation, and is referred to Cook's third

voyage, and the charts annexed to it, as well as to thoſe which make part of the M. S. collection.

42. The Aleutians, or Iſlands of Foxes, and others, which are ſuppoſed to be ſituated to the W., the W. S. W., and the W. N. W. of theſe. Cook viſited only thoſe of Oonalaſhka, the ſtraits which ſeparate them, and a few of their harbours. The other iſles of this cluſter, and thoſe ſituated more to the weſt are known to us only from the Ruſſian accounts of them, which are too inaccurate to be depended on. De la Pérouſe will conſider them merely as a vocabulary, and look out for thoſe iſlands as if they were abſolutely unknown. He may however conſult Coxe's work entitled, *Diſcoveries of the Ruſſians.*

43. Port d'Awatſcha, or St. Peter and St. Paul, at the extremity of the peninſula of Kamtſchatka. He is furniſhed with a particular plan of this port, on a great ſcale, differing from that in Cook's third voyage, to which he is referred on touching there.

44. Kurile Iſlands. Captain Gore, who ſucceeded Cook and Clerke in the command, viſited none of them. Muller ſays, that *Yeſo* or *Jeſſo* is the name given to all the iſlands denominated by the Ruſſians *Kurilſki* or *Kuriles*. The moſt northern of them is very near the ſouthmoſt point of Kamtſchatka. They are 22 in number, and at no great diſtance from each other. The inhabitants are ſuppoſed to be ſuſceptible of friendſhip, hoſpitable, generous, and humane. Conſult Cook's third voyage.

45. Land of Yeſſo or Jeſſo. The Japaneſe confound this with the Kuriles, but they are generally believed to be different. Cook has thrown no light on the ſubject. De la Pérouſe is furniſhed with a copy of the chart conſtructed by the Dutch, which preſents a detail of all their diſcoveries in thoſe ſeas.

46. Eaſt coaſt of Japan. A chart of a ſmall portion of it is to be found in Cook's third voyage, and nautical obſervations relative to it.

47.

47. Lekeyo Iſlands, to the S. W. of Japan. Buache has given extracts from all the letters of miſſionaries relative to thoſe iſlands.

48. Great Iſland, populous and rich, ſaid to have been diſcovered by the Spaniards about 1600. Referred to a paſſage in the Philoſophical Tranſactions of the Royal Society for 1674, for ſome particulars relating to this iſland.

SUPPLEMENT.

49. Caroline Iſlands. Of theſe a particular chart has been conſtructed after that of Father Cantova, and the relations of other miſſionaries, which have been printed as a ſupplement to the Hiſtoire des Navigation aux Terres Auſtrales, by de Broſſes.

50. An iſland to the ſouth, between Mindanao and the Moluccas. Conſult, for all this part, Forſter's Voyage to New Guinea.

51. Straits the eaſt and weſt of Timor. M. de la Perouſe is referred to Dampier's voyages for inſtructions which may aſſiſt him in navigating the ſhips through one or the other of thoſe ſtraits, as the wind and other circumſtances may direct.

52. As to the Iſle of France and Cape of Good Hope, he is referred to the Neptune Oriental of Dares, and the inſtructions ſubjoined.

53. Marſeveen and Denia; two little iſlands known to the Dutch, and furniſhing them a ſupply of wood, and yet their poſition is not determined. Cook regrets that it was not in his power to look for them. They are laid down conformably to the poſition given them on the general chart of his third voyage; Marſeveen, in 40° 30′ ſouth, and 2° 45′ eaſt of the Cape of Good Hope; and Denia in 41° ſouth, and 3° eaſt of the Cape.

54. Cape, or Iſle, Circumciſion, diſcovered January 1ſt, 1739, by M. de Lozier Bouvet. Its poſition is

ſtill

ſtill undetermined; having eſcaped the reſearches both of Cook and Furneaux, and all poſterior navigators; and the diſcoverer not having fixed it with ſufficient accuracy.

LETTER

From M. le Mareſchal de Caſtries, to M. de Condorcet, Secretary to the Academy of Sciences.

Dated Verſailles, March, 1785.

IN this farther preliminary piece, the Mareſchal informs the Academy of his Majeſty's reſolution to iſſue orders for a voyage of diſcovery round the globe, and explains the general and particular objects which it had in view. He calls upon them to digeſt a memoir containing a detail of the different phyſical, aſtronomical, geographical, and other obſervations proper to be made, both by ſea and land, to direct and aſſiſt the perſons to be employed on the expedition; and concludes with expreſſing a wiſh that the illumination of that learned body, co-operating with the zeal and exertions of the naval officers might be productive of the happieſt effects on the progreſs and improvement of ſcience.

This produces, on the part of the Academy,

A DIGESTED MEMOIR,

For the Uſe of the learned and ſcientific Perſons about to embark under M. de la Pérouſe.

To reduce this ſummary to all poſſible order and perſpicuity, the Academy collects, under one point of view, obſervations relative to ſeveral branches of ſciences, allied by the nature of their object, though cultivated

cultivated by different deſcriptions of men. At the head of the memoir they place in one claſs,

GEOMETRY, ASTRONOMY, MECHANICS.

They recommend, as peculiarly intereſting, to apply unremittingly to aſcertain the length of the pendulum of a ſecond's vibration, in different latitudes, from a perſuaſion that an aggregate of operations to this effect, carefully performed by the ſame perſons, with the ſame inſtruments, would be invaluable; they therefore intreat the navigators to purſue this object, with all poſſible exactneſs, wherever they ſtop.

The determination of longitudes being a primary object to navigators, they are requeſted to preſerve the original calculations of obſervations of longitude, by the diſtance of the moon from certain ſtars, that in caſe ſome aſtronomer ſhould afterwards, by new obſervations made on land, correct the principles which may have determined the longitudes in queſtion, that correction may be employed in its turn, to rectify the calculation of thoſe very longitudes.

Navigators know before hand the moment of the eclipſes to take place during their voyage, and the places where they will be viſible. They are requeſted not to confine their obſervation to the inſtants of beginning and ending, but to deſignate the progreſs with all poſſible preciſion.

The phenomena of the tides are too intereſting to mariners to be overlooked. They muſt carefully mark the double tide of every day. And ſome perhaps need to be informed, that we have no accurate obſervations of the tides on the weſt coaſt of Africa, on that of America, any more than of the Moluccas and Philippines.

Obſervations relative to geography being ſuggeſted by his Majeſty's inſtructions, the Academy will only subjoin a few remarks communicated by M. Buache their geographic aſſociate.

PHYSICS.

PHYSICS.

Under this head the navigators are directed to make accurate obſervations of the daily variation of the magnetic needle, every time they go on ſhore, and at ſea whenever the weather permits: to keep an exact account of the height of the barometer, near the equator, at different hours of the day; and try to aſcertain whether, as ſome have remarked, the mercury ſtands an inch higher on the weſt coaſt of America than on the eaſt: to employ ſmall air balloons to determine the height at which the winds blowing in the lower region of the atmoſphere change their direction, and the courſe of thoſe directions; and to prepare themſelves to give an accurate account of the currents in the various parts of the globe. They are deſired to obſerve the auroras, boreal and auſtral, and examine their height and amplitude; and to mark every circumſtance which may ſerve to explain the phenomenon of water-ſpouts: to make frequent experiments on the different degrees of temperature of the ſea, and its ſaltneſs in different latitudes, and at different depths: to examine and diſtinguiſh the floating ices they may meet; and to obſerve more cloſely the phenomenon of the light which ſometimes ſhines on the ſurface of the ſea, in the view of aſcertaining its real cauſe.

CHEMISTRY.

To throw light on the theory of gas, it would be of importance to aſcertain whether or not the air is purer or contains more vital particles, at the ſurface of great extents of ſea, than elſewhere. They are deſired to enquire whether ſedative ſalt is found in the lakes of the countries they viſit, as it certainly is in ſome we know. They may probably meet with mineral

mineral alkali, and will examine the ſubſtances with which it is mixed, its diſtance from the ſea, &c. in order to trace the proceſs of nature in producing the alkalization of marine ſalt. They will obſerve in the ſeveral countries they viſit, the colours employed in dying, the ſubſtances whence they are extracted, and the mode of application.

ANATOMY.

Beſide attention to the exterior of the various tribes of the human race, compariſon might be extended to the interior parts. The ſkull and *os hyoides* of a full-ſized body might be procured, among a people ſenſibly differing from Europeans in the form of the face, or of the whole head, and thus knowledge might be acquired reſpecting the varieties of the human ſpecies from the form of the bones of the head. The proportions of the human figure, in different nations, might be compared with thoſe which limners obſerve in repreſenting *beautiful nature*, by dividing the height, taken in a ſtrait line, into eight parts, from the heel to the crown of the head. The dimenſions moſt accurately to be aſcertained are, the length of both arms, extended from tip to tip of the middle fingers; the length of one arm, from the arm-pit to the tip of the middle finger; the circumference of the head, at the height of the forehead; that of the cheſt, at the paps; that of the belly, at the navel. Examine whether, in countries where the men are of extraordinary ſtature, there be ſix *lumbar vertebræ*, or only five; enquire what is the duration of life, and the age of puberty.

ZOOLOGY.

The *hiſtoire naturelle générale & particulière*, and the ornithology of Briſſon are recommended as models.

dels. In examining uncommon ſhells, the object ſhould be to diſcover all that are to be found on the ſame coaſt, the predominant ſpecies, and the conformation of the animals they contain; to compare the petrified ſhell-fiſh of different latitudes, with the live ones in the ſeas adjoining, and to diſcover whether the petrefactions of Europe have their living analogies in diſtant ſeas.

MINERALOGY.

The examination of the ſtrata which form the correſpondent coaſts of a ſtrait, or the ſoil of an iſland, on one ſide, and that of the continent which fronts it, on the other, will lead to form a concluſion whether a coaſt be of ancient or recent formation; whether an iſland is adjacent to the mouth of a river, or has made part of the continent. Obſerve, in ſmall iſlands, and parts of continents that can be examined in detail, at what height above the level of the ſea marine depoſits are found in horizontal ſtrata. Try to aſcertain whether mountains, compoſed of horizontal and calcareous ſtrata, diminiſh in height as you approach the equator. Collect as great a number as poſſible of cryſtalizations. To this is ſubjoined a liſt of the ſpecies exhibited in Daubenton's nomenclature. They will procure ſpecimens of the moſt ſingular woods and marbles; and they will ſatisfy themſelves whether cryſtals, which become electric by ſimple heat, manifeſt the poſitive or negative electricity at one of their extremities, relatively to their poſition.

BOTANY.

Let their reſearches be directed to objects of utility, ſuch as the knowledge of the plants uſed by different nations for food, medicine, or in works of art.

art. Let them make a rich and varied collection of the grains of exotic trees and plants, picked up in a temperature, not greatly different from that of France, whoſe productions, naturalized to our climate, may one day enrich our plantations, and adorn our meadows.

OBSERVATIONS OF M. BUACHE.

Theſe indicate the Parts of the Ocean in which New Diſcoveries may moſt probably be made.

1. IN the ſouthern diviſion of the Pacific Ocean there are two ſpaces hitherto very little known, and in which there is every reaſon to hope that new lands may be found. The firſt is that ſituated to the ſouth of Eaſter and Pitcairn Iſlands, between 30° and 35° S. and the ſecond ſpace, which deſerves to be more particularly reconnoitred, is that contained between the New Hebrides and New Guinea.

2. The northern part of this ocean, ſtill leſs known, may open a field of ſtill more extenſive diſcovery. To the ſouth of the Mariannes, between 5° and 10° N. there is a chain of iſlands, divided into ſeveral cluſters, and extending more than 25° in longitude; and which are known only in a vague deſcription, and from a chart conſtructed on the report of ſome of the iſlanders, who were thrown by a ſtorm on the Iſle of Guaham. The part of thoſe ſeas to the north of the Mariannes, or to the eaſt of Japan, are equally unknown, only we have ſufficient indications that this ſpace contains a conſiderable number of iſlands, and theſe very intereſting; one particularly of great extent, about 300 leagues eaſt of Japan, whither its inhabitants come to trade. The land of Jeſſo cannot

not poſſibly be ſuch as the Engliſh and Ruſſians have repreſented it.

3. On the weſt coaſt of America, to the north of California, the river of Martin d'Aguilar may aſſuredly be found again, in the latitude of 43°. He was one of the pilots of Sebaſtian Viſcaino, whoſe voyage through thoſe ſeas is highly intereſting. It were to be wiſhed that ſome information could be obtained reſpecting the inland nations to the north of California; and that on the return, the iſlands of Denia and Marſeveen, to the ſouth of the Cape of Good-Hope, could be explored. The navigators would do well to procure for us the names given by the natives to the iſlands they may diſcover, and a vocabulary of names given by them to objects the moſt remarkable, and of the firſt importance.

EXAMINATION OF THE NATURE OF THE AIR.

In order to determine the degree of its ſalubrity, in different latitudes, and at different elevations, the application of nitrous air ſeems the moſt ſimple and moſt infallible. The firſt requiſite is to procure nitrous air, nearly pure. That produced from the ſolution of mercury by the nitrous acid, is the pureſt; for want of it, that obtained from iron may be uſed. Introduce 200 parts of nitrous air into the eudiometer; add to it 100 parts of the air to be proved, and obſerve the number of parts remaining after abſorption. Subtract this remainder from the ſum of the two airs, multiply this reſult by 40, and divide the product by 109, the quotient will expreſs the quantity of vital air contained in the 100 parts of the air examined. Make a memorandum of the height of the barometer and thermometer.

SPECIFIC GRAVITY OF THE AIR.

The navigators muſt have a globe of glaſs fitted to their air pump, which they can exhauſt and fill at pleaſure. By weighing this globe full and empty, the ſpecific gravity of air, in different latitudes, will be thus obtained. During each experiment the height of the barometer and thermometer muſt be accurately obſerved, and the operator provided with a very exact balance, capable of aſcertaining the gravity with eaſe, to the preciſion of half a grain.

EXAMINATION OF WATER.

They are referred to the experiments of the Abbé Chappe, and the reſults of them publiſhed by M. de Caſſini. Theſe may aſſiſt them in determining, upon a ſingle voyage, the degree of ſaltneſs of almoſt every ſea. They only need, for this purpoſe, a very accurate hydrometer; which may likewiſe be employed for determining the ſpecific gravity of the water of lakes, rivers, and ſprings; and by joining to theſe ſome experiments made with re-agents, an idea may be acquired not only of the quality, but likewiſe of the quantity of ſalts contained in thoſe waters. When a particular water ſhall appear to preſent any thing intereſting, a part of it may be evaporated, and the reſiduum put up, carefully labelled, to be more cloſely examined at the end of the voyage.

QUESTIONS

Propoſed by the Medical Society to the Gentlemen who are to accompany M. de la Pérouſe, read in the Sitting of May 31, 1785.

As theſe queſtions are numerous, they are exhibited under titles which form ſo many heads of medical reſearch.

I. ANATOMY, PHYSIOLOGY.

Structure of the Human Body, and Functions of its Organs.

THE deſcriptions of moſt travellers, on this ſubject, are known to be exaggerated and erroneous; but more exactneſs is expected from the ſcientific perſons who accompany M. de la Pérouſe, and they are requeſted to obſerve the following objects with peculiar attention:

1. The ordinary ſtructure of both ſexes; the great and ſmall diameter of the head; the length of the upper and lower extremities, meaſured from the elbow to the tip of the middle finger, of the thigh to the extremity of the great or ſecond toe; the circumference of the pelvis; the breadth of the cheſt, of the ſhoulders; the height of the vertebral column, from the firſt vertebre of the neck to the ſacrum.

2. The form, the colour of the ſkin, and its different regions; as alſo of the hair and nails.

3. The particular form of the ſcull; that of the face, particularly of the forehead, of the noſe, eyes, ears, mouth, chin, teeth, tongue, the hair of the head and of the beard. Theſe parts of the body iſlanders are accuſtomed to deform in various ways.

4. Procure an exact deſcription of the proceſs, and

and the ſubſtances employed in making indelible marks on the ſkin, and all other circumſtances relative to ſuch diſfigurations.

5. The defect, exceſs, or different conformation of various parts of the body; are theſe the uniform production of natural organization, or the effect of certain particular practices? Are there ambidexters, or is the right-hand univerſally pre-eminent?

6. The comparative ſtrength of the men, capability of bearing burthens; of walking, running, as to time, and ſpace.

7. The ſenſes of ſeeing, hearing, ſmelling. Does the acuteneſs of one ſenſe impair that of any other?

8. The voice, diſtinctneſs of articulation, the mode of expreſſing joy, pleaſure, ſorrow.

9. The age of puberty in both ſexes, the menſtrual flux, pregnancy, child-bearing, ſuckling, proportion of males and females.

10. Proportion of deaths before the age of puberty: the medium length of human life in different climates.

11. Frequency or ſlowneſs of the pulſe, which is in Europe from 65 to 70 in a minute.

12. The affinity between the colour of the ſkin and that of the humours.

13. Are there men with milk in their breaſts? What is to be ſaid of the hermaphrodites of Louiſiana? Is the ſexual inclination periodical among ſavages?

II. HEALTH.

Of the Air, Water, Food, Habitations, Clothing, Exerciſe, Paſſions.

1. Air in different places to be tried by the eudiometer; higheſt and loweſt temperature in the ſun and in the ſhade, dryneſs, humidity, gravity, elaſticity, electric ſtate; diviſion of ſeaſons; prevailing

winds, their variations; the nature of the meteors, ſnow, hail, rain, thunder, hurricanes, water-ſpouts; corruption by vapours or emanations.

2. Examination of ſea-water at various depths and diſtances from land; freſh and brackiſh water, the nature of ſalt contained; what ſort the natives drink, mineral waters, cold and hot; made drinks, ſweet or fermented; their mode and materials of preparation, the ſubſtances of which they are compoſed, their effect, particularly the *kava* deſcribed by Anderſon.

3. Aliments. Vegetable or animal food, or both? Seaſoning, cookery, times of eating, quantity? Do they uſe ſalt? The reſemblance which their roots, fruits, &c. have to our pot-herbs? Their farinaceous plants, the fern of New Zealand, ſugary ſubſtances?

4. Habitations, their form, extent, openings, expoſure, of what ſoil, of what materials, what ſhelter they afford, dryneſs, humidity? Do the natives reſort thither during the night, the whole year round, or occaſionally? What numbers to one houſe? On what do they ſleep? Are there tribes who always live in the air? Their clothing, form, materials, varieties?

5. Employments of both ſexes, labour, exerciſe, how far conducive or injurious to health?

6. Paſſions, manners, leading character? Practices favourable to the ſecretion of humours, chewing tobacco, betel, &c. ſmoking, frictions, unctions, bathings, with their effects, particularly that of tattooing?

III. DISEASES.

1. Are there are any acute diſeaſes or fevers among thoſe iſlanders? What eruptive diſorders? Does the ſmall-pox exiſt? What is its progreſs, its ravages? Is inoculation practiſed? Is the ſmall-pox any where endemical? What other contagious or epidemical

epidemical diſeaſes? Have they been viſited with the plague? Are children ſubject to the tetanus and the croup?

2. To what are we to aſcribe the frequency of tetters and ulcers in ſome of thoſe iſlands? To oily unctions or the ſtinging of inſects? Do theſe breed in them frequently, as in the ulcers of hot climates? Are the ulcers which corrode the face cancerous? Are they ſubject to the leproſy, the louſy diſtemper, and the dracunculus?

3. Does the venereal diſeaſe exiſt among them? Does it appear to be natural, or to have been imported? The mode of cure? In what ſtate is it in the Friendly or Society Iſlands? The ſymptoms? Is it true that the gonorrhea is unknown among thoſe iſlanders?

4. Is the ſcurvy endemical in any particular latitude? What its ſymptoms and ravages in hot or cold climates? What its cure?

5. Are the rickets known in thoſe countries? Do nervous, convulſive, ſpaſmodic, but eſpecially epileptic diſorders exiſt among them? Are children ſubject to any illneſs, particularly convulſions, while they are teething?

6. Are there any perſons, male or female, particularly charged with tending the ſick? What remedies or proceſſes do they employ? Are there hoſpitals, or do they ſeclude patients of certain claſſes from ſociety?

IV. MATERIA MEDICA.

The navigators will inveſtigate the virtue of the plants whoſe ſavour and other phyſical properties may communicate to them any medical information. The following articles are ſubmitted to their conſideration:

1. Examine the taſte, the ſmell, of the roots, woods, barks, leaves, flowers, fruits, and ſeeds of the

vegetables of countries imperfectly known, and compare them with the different vegetable ſubſtances uſed as medicines in Europe, and make the ſame experiments on the ſaps of trees, as well as on animal ſubſtances.

2. Obſerve the remedies uſed in warm countries to counteract peculiar diſorders, and even deſcribe the ſuperſtitious proceſſes which are frequently the only medicine of barbarous nations.

3. Try the decoctions of ſome of the emollient, aromatic, acrid plants, on cutaneous diſorders.

4. Employ mercury in friction in venereal caſes, and aſſiſt the iſlanders in delivering themſelves from this terrible ſcourge; above all, obſerve the effects of mercury.

Diſcover whether certain ſudorific vegetables have not an antivenereal virtue in thoſe iſlands.

6. Diſcover whether there may not exiſt, in ſome warm countries, plants analogous to the jeſuit's bark, the ſimarouba, the ipecacuanha, the camphor, the opium, &c. and whether the iſlands produce emetic or purgative plants which might be turned to good account.

7. Procure information, and make obſervations on the properties of the anacardium, which is ſaid to be a cure for infanity; on the virtues of the *telephium* and of the *granum marinum*, which the Greenlanders prefer to the cochlearia as an antiſcorbutic; on Winter's bark, the root of Belaage, of Columbo, and that of Juan Lopez.

8. What nations uſe poiſoned arrows, what ſubſtances they employ for this purpoſe, what antidotes to counteract their deleterious action, and, above all, whether ſalt and ſugar poſſeſs this quality?

9. Examine the animals, particularly ſerpents and venomous fiſhes, and diſcover the cauſe of this dangerous property in theſe laſt, and the means of prevention.

10. Collect

10. Collect carefully the remedies, internal and external, which are applied as ſpecifics, the mode of preparation, of application, the doſes, the effects, and the period of the diſeaſe at which they are adminiſtered.

11. Put up in a ſeparate herbal the plants or parts of plants which are uſed as food, medicine, or poiſon.

CHIRURGERY.

1. Are diſlocations, fractures, ruptures, and chirurgical maladies, in general, common among people who live in a ſtate of nature?

2. What means do they employ for curing thoſe diſorders?

3. Have they particular inſtruments? What is their form, of what materials, how uſed? Buy ſome, and make a collection.

4. Are circumciſion and infibulation practiſed? How is the operation performed?

5. Are there any perſons, male or female, particularly entruſted with the treatment of ſuch and ſuch a chirurgical caſe, as of the eyes, ears, teeth, ſkin, child bearing?

6. What is the form and nature of their warlike inſtruments, that of the wounds they inflict, the mode of treatment and cure?

(Signed) MAUDUYT,
VIC-D'AZYR,
DE FOURCROY, and
THOURET.

At the Louvre, 31*ſt May*, 1789.

SKETCH

Of Experiments to be made for preſerving Water on Ship-board from Corruption, communicated by the Abbé Teſſier, of the Academy of Sciences, and of the Medical Society.

TWENTY caſks of equal ſize are to be ſelected on the voyage, ſimilar to thoſe which contain the reſt of the freſh water; they are to be of the ſame wood, and hooped as the others, ſtowed in the ſame part of the ſhip, and without any particular precaution.

1ſt Experiment. The water with which two of the caſks are to be filled, muſt firſt be boiled for half an hour. There are no inſects' eggs which can ſtand this degree of heat without periſhing. Mark the caſks No. 1. E. B, No. 2. E. B. the initials of *eau bouillie*, boiled water.

2d Experiment. Let the inſide of other two be impregnated with quick lime diſſolved in boiling water, repeating the operation twice or thrice; for this purpoſe a bruſh muſt be uſed, and ſtrongly applied to the ſtaves and ſeams, that the lime water may penetrate the deeper. It is plain that one of the ends muſt be out when this is doing, and the inſide of it muſt be likewiſe impregnated before it is replaced. Theſe two are to be filled with water which has not boiled, and marked No. 1. E. C. S. No. 2. E. C. S. the initials of *eau chaulée ſimplement*, water limed ſimply.

3d Experiment. This is to combine the two preceding, by filling the two caſks, impregnated as before, with boiled water; let the one be marked No. 1. E. B. C. the other No. 2, E. B. C. the initials of *eau bouillie, chaulée*, boiled water, limed.

4th Experiment. To two caſks of water, boiled and limed as before, add four ounces of the ſpirit of vitriol for every 250 pints of water, Paris meaſure, marked

marked No. 1. No. 2. E. B. C. V. the initials of *eau bouillie, chaulée, vitriolisée,* boiled water, limed, vitriolated.

5th Experiment. Fill two other casks with fresh water neither boiled nor limed, and add the vitriol in the above proportions, and mark them No. 1. No. 2. E. S. V. the initials of *eau simple, vitriolisée,* plain water, vitriolated.

6th Experiment. To two casks of boiled water add the vitriol as before, and mark them No. 1. No. 2. E. B. V. the initials of *eau bouillie, vitriolisée,* boiled water, vitriolated.

7th Experiment. Let two casks be tarred over on the outside, and filled with boiled water without any internal impregnation, and mark No. 1. No. 2. E. B. G. E. the initials of *eau bouillie, goudronnée exterieurement,* boiled water, tarred externally.

8th Experiment. Impregnate with lime internally, as in the 2d, 3d, and 4th experiments, two casks of boiled water, and likewise tar them on the outside. Mark them No. 1. No. 2. E. B. C. G. the initials of *eau bouillie, chaulée, goudronnée,* boiled water, limed, tarred.

9th Experiment. Let two be tarred simply on the outside, and filled with plain water which has not boiled, marked No. 1. No. 2. E. S. G. E. the initials of *eau simple, goudronnée exterieurement,* plain water, tarred externally.

10th Experiment. Fill two with plain water, without any preparation whatever, external or internal, of either the water or the casks. This experiment is an object of comparison with all the others.

The water is not to be boiled till the casks are quite ready, and they must be filled immediately, lest other insects should deposit their eggs in it; and it is obvious that all the experiment casks should be closely bunged up. When, from the heat, the rest of the water on board begins to corrupt, each of the experiment

riment caſks ought to be examined at the ſame time, and their taſte, ſmell and tranſparency obſerved; the gravity muſt be tried by the hydroſtatical balance, and the temperature, by introducing the thermometer into the caſk; in an equal quantity of each ſort, an equal quantity of dry pulſe, ſuch as had been uſed before ſailing, muſt be boiled; finally, an equal quantity of the ſoap formerly employed, muſt be diſſolved in equal quantities of the ſeveral waters.

Carefully remark if inſects are forming in them, of what ſpecies, trace their metamorphoſes, preſerve ſome of them in ſpirits to be brought home. If the neceſſities of the ſhip's company permit, the remaining caſks of the ten experiments ought not to be touched before arriving in a different climate, and ſtill in a latitude where common water will corrupt; in this caſe, let them be examined as before.

An exact account muſt be kept of every thing done and obſerved in the experiments, to be ſigned by M. de la Pérouſe, his officers, and the naturaliſts on board. It is to be wiſhed that each of the ſhips ſhould repeat the experiments at the ſame time. Double obſervations will confirm each other, and carry the fact up to demonſtration. The experiment water will be as good as any other, and ſo no room will be uſeleſsly occupied.

M. de la Pérouſe is requeſted to ſign two copies of this ſketch, together with the author of it, each of the parties to keep one, as a teſtimony of the engagement he enters into with the public, to ſuperintend experiments which may tend greatly to promote the comfort of navigators.

At Rambouillet, May 19*th*, 1785.

(Signed) TESSIER.
LA PÉROUSE.

MEMOIR

MEMOIR

To direct the Gardener in the Labours of his Voyage round the World; by M. Thouin, first Botanical Gardener.

The object which this branch of the expedition has in view is two-fold; to send to the inhabitants of newly discovered countries the vegetable productions of Europe which may be useful to them; and to receive from them in return such of their productions as are calculated to enrich Europe. This memoir is accordingly divided into two parts corresponding to this double object of mutual benefit.

PART FIRST.

Choice, Nature and Culture of the Vegetables to be transported from France.

Nutritious plants deserve the preference; the choice, therefore, must be made among our leguminous plants, and most valuable trees. Such as need no preparation in order to be used as food, must have the first rank; and those which need only to be roasted to become eatable must occupy the second. To these limits we ought to restrict the presents which we mean to make to a race of men who, destitute of vessels proper for boiling, could make no use of vegetables that require this mode of cookery. Plants of easy culture ought to have the preference.

No seeds to be put up but of last year's growth, perfectly matured and sound. Some need only to be kept from air and moisture, others must be laid in earth or sand, to preserve their germinative power. The gardener is directed to mark and label every parcel, and arrange the whole conformably to a written catalogue. On arriving at a place where he proposes to sow, he must examine the temperature of the climate, and observe whether the native plants, particularly

particularly annuals, are in a ſtate of growth, maturity, or decay. This will direct his choice of the proper ſeed, and aſpect. The time of the year muſt be carefully attended to, as well as the nature of the ſoil. Let him try to engage the natives to aſſiſt in the labours of the field. Beſides more regular culture, every time he walks abroad he ought to be provided with an aſſortment of ſeeds, to be ſcattered about occaſionally where they are likely to ſpring. He muſt keep a regular journal of all his operations and their reſults, which will furniſh points of compariſon towards perfecting the art.

Particular directions are then given reſpecting the packing and carriage of growing plants, both by land and water.

PART SECOND.

Of the gathering of Vegetables that may be uſeful to Europe, and of their Preſervation on the Voyage.

The collection muſt conſiſt of 1. Seeds: 2. Bulbs and fleſhy roots of vivacious plants: 3. Slips of valuable trees, the ſeeds of which cannot be procured. Seeds to be gathered when a choice is to be had, and in a ſtate of perfect maturity; but in caſe of a ſhort ſtay, they muſt be taken on the plant though immature, and all means employed to ripen them on the paſſage; and every chance taken of procuring a precious vegetable to Europe. Attention muſt be paid to the manner of putting up even perfectly ripe ſeeds. Thoſe which grow in huſks, pods and capſules, muſt remain in their envelopes, and theſe tied up to prevent their opening; the ſame care muſt be taken of cones, and in general of all dry fruits. Small ſeeds growing in ears, cluſters, panicles, muſt be picked entire with ſtalks of five or ſix inches long, and all communication between the germ and the air prevented: they muſt be carefully cleared of all inſects and their eggs. Samples of every ſpecies of plant,

plant, and its reſpective ſeed to be marked and numbered. Naked ſeeds of the ſize of a hazel-nut or upward, require a different preparation. They muſt be left expoſed to a free air for ſome time, to ſweat off the ſuperfluous moiſture, and perfect their maturity. When packed up they muſt be depoſited in ſuch parts of the ſhip as are leaſt expoſed to variations of the atmoſphere, and equally ſecured againſt exceſſive dryneſs and humidity.

It cannot be doubted that the trees and plants which may be uſed as food are of the firſt importance, ſuch as the fern whoſe root ſerves as aliment to the inhabitants of New Zealand: thoſe uſeful in the arts will occupy the ſecond place; ſuch as are ornamental to our gardens, the third; and the fourth will comprehend thoſe which are only proper for a botanical collection. The quantity gathered ſhould be in proportion to the climate of the country. Where the temperature is analagous to that of Europe, there can be no riſk in taking a great deal: in hotter climates leſs will ſerve, as the ſeeds need hot-beds and frames to raiſe them, only a few can be preſerved; unleſs it were an object to propagate them in our Eaſt or Weſt India ſettlements. Collect more in the laſt periods of the voyage than in the firſt. Forward, as opportunity preſents, collections already made, with proper information.

Directions follow reſpecting the mode of packing and conveyance, and of culture during the voyage; and a liſt of neceſſaries to the gardener in the diſcharge of his office.

A Liſt of Seeds to be packed up for the Expedition.

FIRST DIVISION.

Subſtances which need no preparation to become food.

FRUITS

FRUITS OF TREES.

Seeds of apples, pears, grapes, gooſeberries.
Stones of peaches, apricots, plums, cherries.
Almonds. Nuts.

FRUITS OF HERBS.

Seeds of melons, of different kinds; artichokes, white and violet; Guinea pepper.

LEGUMINOUS PLANTS.

Seeds of celery of all varieties; chervil, creſſes, parſley, purſlain, golden; ſorrel, lettuce, cabbage and coos; ſmall lettuce for cutting; wild ſuccory.

ROOTS.

Onions white and red, turneps of various ſorts, radiſhes, garlic, ſhalot.

SECOND DIVISION.

Subſtances that need no preparation, but roaſting, to become food.

ROOTS.

Potatoes, carrots of all varieties, chiroui, parſnips, ſalſify, Spaniſh and white; beet-root, red, white and yellow.

FARINACEOUS SEEDS.

Wheat of different ſpecies, maize of all varieties, buck wheat, or black corn; Piedmonteſe rice, barley of different ſorts, oats of every variety, rye.

THIRD DIVISION.

Productions not eatable till boiled, and therefore proper only for nations provided with veſſels fit for this ſpecies of cookery.

Peas of all ſorts, kidney-beans of all ſorts, garden-beans of every variety, lentiles, the large ſpecies; chick-peas, white and red; lupines, vetches, white and black; fenugreek, white-muſtard, egg-plant, cabbage,

cabbage, white and red; pompion and muſhroom cucumber, gourd, calabaſh, orach, chard-beet, tobacco.

Vegetables to be tranſported in their natural State.

FRUITING TREES AND SHRUBS.

Apple-tree, red calville, white, rennet, d'api; Engliſh beurré pear-tree, bon chrétien, craſſane, St. Germain; vine, golden chaſſelas, muſcadine, raiſin de Corinthe; peach, groſſe mignonne; nectarine, plum, reine-claude, mirabelle, large damaſcene of Tours; apricot, common, peach; fig, white angelique, violet; cherry, Montmorenci, black-heart, white-heart; olive, native; Portugal quince, black mulberry, garden cheſtnut, walnut, thin-ſhelled; almond, thin-ſhelled; Malteſe raſpberry.

LEGUMINOUS PLANTS.

Potatoes of every variety, Jeruſalem artichoke, garlic, ſhalot.

Weſt-India ſweet-potatoe and yam to be taken in at the Cape de Verd iſlands, at the Cape of Good Hope, or in North America.

SHRUBS FOR PLEASURE.

Roſe, hundred-leaved; lilach, tuberoſe.

INVENTORY

Of Goods and Merchandize to be given in Preſents or Barter.

Theſe conſiſt of all ſorts of iron, copper and lead ware; clothes, fiſhing-nets and hooks, mirrors, glaſs, crockery, trinkets, coins, jewellery, ſtuffs, woollen, linen, ſilk, tape, cordage, paper, &c. &c, to the amount of 58,365 livres. The articles contained in M. Thouin's inventory, 2,330 livres. Inſtruments

ſtruments of aſtronomy, navigation, phyſics, &c. and books purchaſed in France, 17,034 livres. Articles purchaſed in England, about 6000 livres. Beſides theſe, eſſence of ſprucc, malt, and other antiſcorbutics, to the value of 30,000 livres. The total extraordinary expence for the expedition about 150,000 livres, 6250l. ſterling, excluſive of the table of the ſcientific gentlemen and artiſts.

This is followed by a liſt of aſtronomical and other inſtruments for the uſe of the navigators, and a catalogue of books of voyages, of aſtronomy, navigation, phyſics, natural hiſtory, and others, and the preliminary matter concludes with a

LIST OF THE NAMES

Of the Officers, Scientific men, Artiſts, and Seamen, embarked on Board of the Frigates la Bouſſole and l'Aſtrolabe, July, 1785.

LA BOUSSOLE.

M. de la Pérouſe, Poſt-captain, Commander in Chief, employed as *Chef de Diviſion*, and made *Chef d'Eſcadre*, November 2d, 1786.

LIEUTENANTS.

De Clonard, made Poſt.
D'Eſcures.

ENSIGNS.

Boutin, made lieutenant, May 1ſt, 1786, and Major, April 14th, 1788.
De Pierrevert.
Colinet, made ſous-lieutenant de vaiſſeau, May 1ſt, 1786.

MARINE GUARDS.

Mel de Saint Ceran, put aſhore at Manilla, April 16th, 1787.
De Montarnal.

VOLUNTEERS.

VOLUNTEERS.

De Roux Darbaud, and Frederic Broudou, both promoted on the voyage.

ENGINEERS, SCIENTIFIC MEN, AND ARTISTS.

De Monneron, Enginner in Chief.
Bernizet, Geographical Engineer.
Rollin, Surgeon-major.
Lepaute Dagelet, Profeſſor of the Military School, Aſtronomer.
De Lamanon, Natural Philoſopher, Mineralogiſt, Meteorologiſt.
L'Abbé Mongès, Naturaliſt, and Almoner.
Duché de Vancy, Draughtſman of Figures and Landſcapes.
Prevoſt le Jeune, Botanical Draughtſman.
Colignon, Botanic Gardener.
Guery, Clockmaker.

Warrant Officers - -	9
Gunners and Fuſileers - -	8
Carpenters, Caulkers, and Sail-makers	10
Topmen, Steerſmen, and Sailors -	38
Quarter Gunners - - -	12
Supernumeraries - -	9
Domeſtics - - -	7
Supplementary - - -	7

L'ASTROLABE.

M. de Langle, Commander.
De Monti, Lieutenant.

ENSIGNS.

Freton de Vaujuas.
Daigremont.
De la Borde Marchainville.
Blondella.

MARINE GUARDS.

De la Borde Boutervilliers.
Law de Lauriſton.
Raxi de Flaſſan.

SCIENTIFIC MEN AND ARTISTS.

Monge, Profeſſor of the Military School, Aſtronomer.
De la Martiniere, Doctor of Medicine, Botaniſt.
Dufreſne, Naturaliſt.
Le Pere Receveur, Naturaliſt and Almoner.
Prevoſt, Botanical Draughtſman.
Lavaux, Surgeon in Ordinary of the Navy.
Leſſeps, Vice-conſul of Ruſſia, Interpreter; put aſhore at Kamtſchatka, and intruſted with M. de la Pérouſe's diſpatches to Paris.

Warrant Officers - -	8
Gunners - - - -	8
Carpenters, Caulkers, and Sailmakers	12
Topmen, Steerſmen, and Sailors	42
Quarter Gunners - -	11
Supernumeraries - -	9
Domeſtics - - -	7
Supplementaries - -	11

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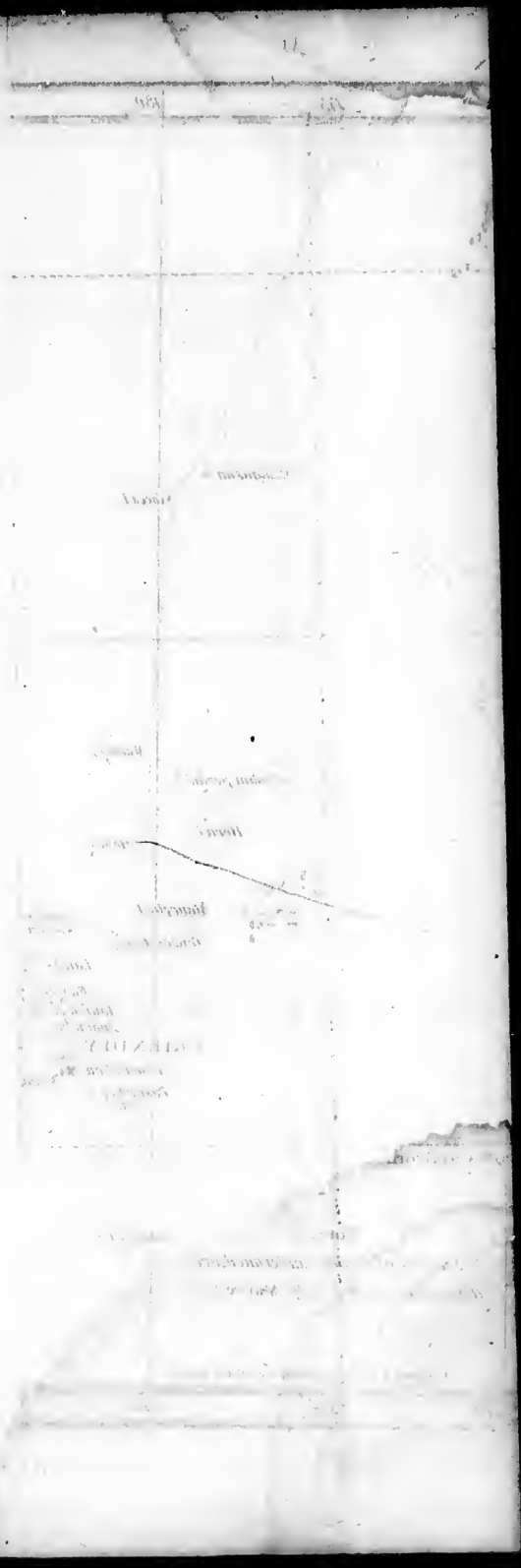
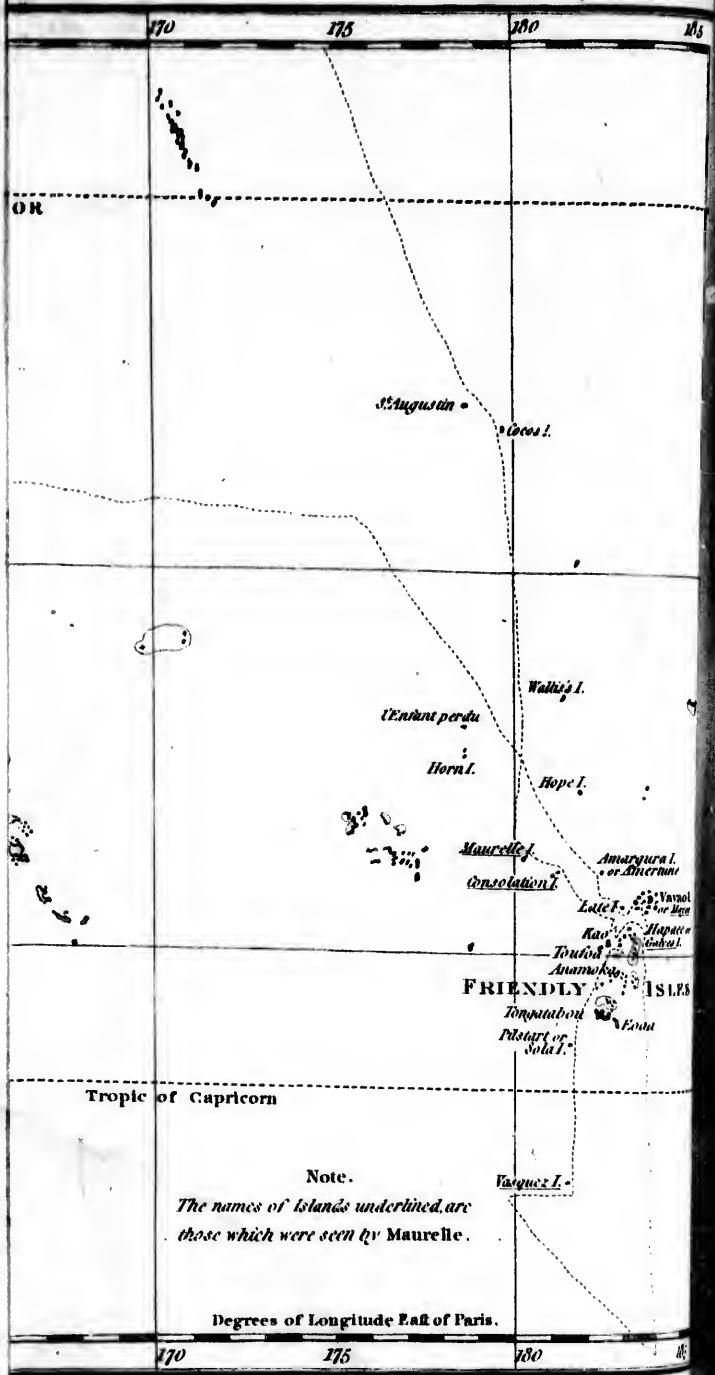
ARRATIVE





ckdale, Piccadilly.

NARRATIVE*

OF AN

INTERESTING VOYAGE

FROM

MANILLA TO SAINT BLAISE,†

In 1780 and 1781.

IMMEDIATELY upon my arrival at Manilla, the commander of the frigate that carried me thither diſembarked the maritime forces which he brought, ſtationed them at the port of Cavita‡ for its defence, and appointed me major of the troops: at the ſame time deſiring that I would take a plan of the harbour and its environs. The object of this was to fix on the moſt advantageous ſituation for placing the force to oppoſe the deſcent of an enemy.

The governor fitted out the frigate La Princeſſa for an expedition which he thought to keep ſecret. When the frigate was ready to ſail, I received orders, very unexpectedly, to take the command of it. The ſurpriſe which this unlooked-for appointment occaſioned me, my entire ignorance as to the object of the expedition, the fear of ſeeing my miſſion thwarted by the neceſſity of ſome engagement, were to my

* The Spaniſh originals of this narrative, and the following extract, were ſent by La Pérouſe; the tranſlation is the work of A. G. Pingré, and the correſponding chart compoſed according to theſe accounts; and the ancient journals is by Buanche, member of the national inſtitute.—*French Editor.*

† It is well known that Manilla, in the Iſland of Luconia, is the capital of the Philippine Iſles. Saint-Blaiſe, or Saint-Blas, is a harbour on the weſtern coaſt of Mexico.

‡ Cavita is three leagues from Manilla.

London Published, August 27,1

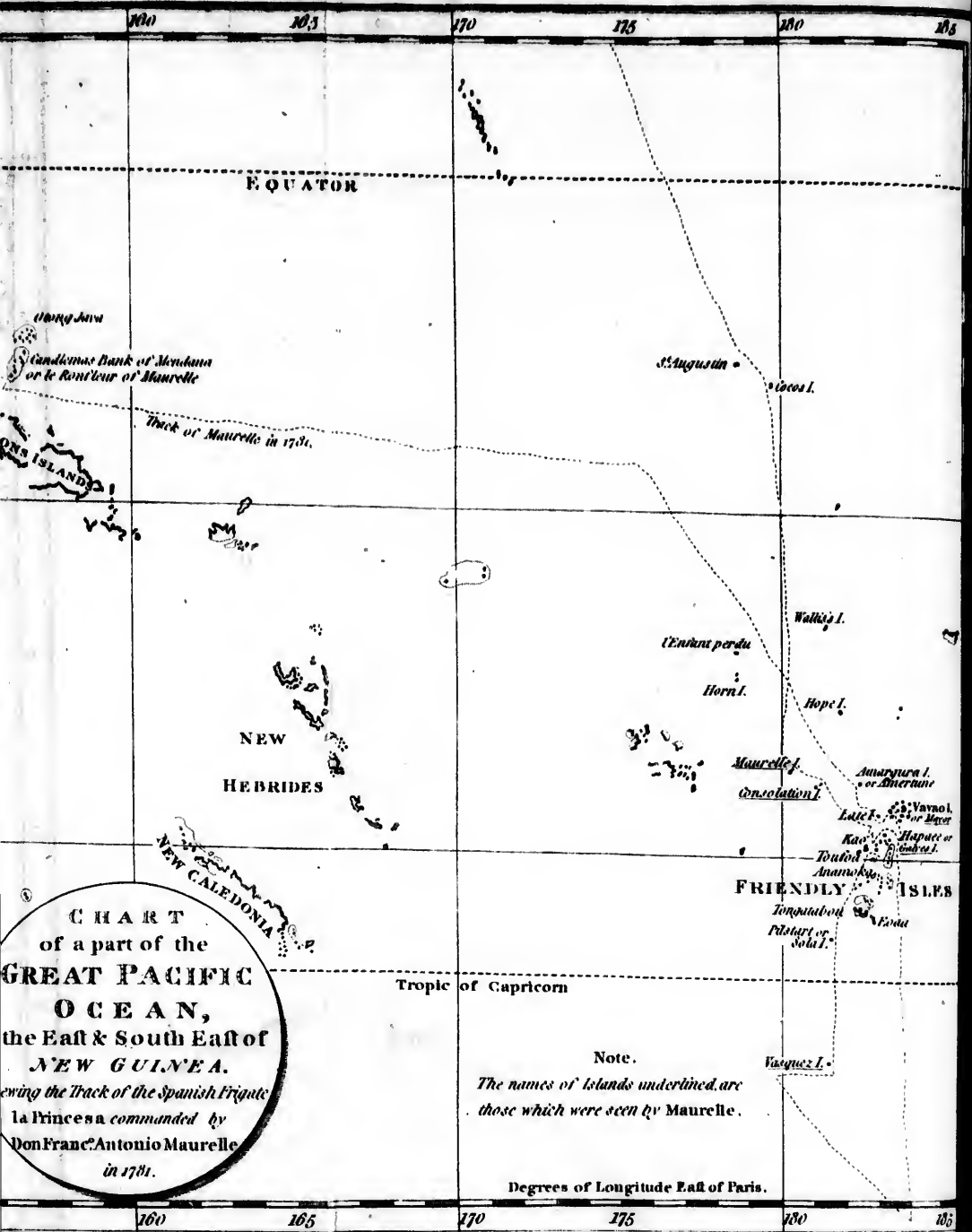


CHART
of a part of the
GREAT PACIFIC
OCEAN,
the East & South East of
NEW GUINEA.
ewing the Track of the Spanish Frigate
la Princesa *commanded by*
Don Franc.o Antonio Maurelle
in 1781.

Note.
The names of Islands underlined are those which were seen by Maurelle.

London Published, August 27.1798, by I.Stockdale, Piccadilly.

mind the ſource of a thouſand anxieties: but the governor repreſented to me that this commiſſion would do me as much the greater honour as the object was more intereſting; that ſhould the enemy think of ſeeking me, which he would not be backward in doing, the expertneſs and activity of my manœuvres would be a proof of my ability; and that, in ſhort, the ſucceſs of my expedition would be of material advantage to our Sovereign. Theſe expreſſions were ſo powerful an incitement, that I conſidered myſelf particularly honoured by the governor's having choſen me for this expedition, in ſuch critical circumſtances. I accepted the command, and ſailed the 24th of Auguſt, after receiving from government a ſealed packet, containing inſtructions and orders for my obſervance, and the port whither I was deſired firſt to repair. This packet I was not to open till twelve leagues diſtant from Cavita.

The 25th, being at the diſtance preſcribed, I opened the packet. I was enjoined to make the port of Siſiran*, there to wait the final orders of government, always keeping on the watch to repel the attacks of the enemy, who without doubt would endeavour to intercept me, ſhould they come to blockade Manilla.

The winds fell, and becoming contrary, were againſt my getting clear of the iſles. I in conſequence bore up conſtantly on different tacks, making every poſſible effort to gain the weather gage; but I could not overcome the current, which forcibly put me back, running from the point of Eſcarſea†, which it was out of my power to double. I was then under the neceſſity of coming to anchor, at ten o'clock in

* Siſiran is a harbour on the eaſtern coaſt of Luconia, almoſt directly oppoſite to Manilla, being but 16 min. more ſoutherly than that city.

† This point, the port of Las Galeras, the Iſles Tiaco, and St. Bernard, are ſituated in the channel or ſtrait which divides Luconia from the other Philippine iſlands.

the

the morning, near this point oppoſite Galeras Bay, in 25 fathoms, and a ſandy bottom.

At half paſt three on the morning of the 30th the wind changed to the weſt, but it was ſo violent that I drove from my anchors. I wanted to put to ſea, but the current prevented me, and even drifted me towards the port. I was in ten fathoms water, and let go an anchor that was the ſport of the current and winds, which freſhened more and more, ſo that I ſoon found myſelf in only five fathoms water. I let go a ſecond, and by the aſſiſtance of the ſheet anchor, which I caſt with great velocity, I got further from ſhore, from whence I was only about the ſhip's length diſtant; and though ſtill detained within the point of Alagalican, which forms the port of Galeras, I could nevertheleſs get under way, but it was by leaving an anchor, ſheet anchor, two cables, and a ſheet cable faſt in the rocks*. At nine o'clock in the morning I doubled the point, and although the wind abated in getting to the third quarter †, I nevertheleſs, by a preſs of ſail, ſucceeded in coming to anchor at eight o'clock in the evening of the 31ſt, under ſhelter of the Iſland of Tiaco, to quit it again on the morrow.

I again put to ſea on the 1ſt September, and at four o'clock in the evening found myſelf a quarter of a league to the north of St. Bernard. Thence I ſhaped my courſe for paſſing between the Cantaduanes ‡ and Luconia: as this route muſt bring me to the narroweſt paſſage between the breakers and this

* I have much abridged this, as well becauſe the detail would be uſeleſs and tireſome, as becauſe there are ſome paſſages which I do not comprehend, either through my own want of knowledge, which however I do not believe, or through the fault of the copier, who may have mutilated the original.

† The Spaniards divide the horizon into four quarters: the firſt extending from north to eaſt, the ſecond from eaſt to ſouth, the third from ſouth to weſt, and the fourth from weſt to north.

‡ This iſland is oppoſite to the moſt ſouth-eaſterly part of Luconia; its ſouthern point is almoſt parallel with Siſiran.

iſland, I at ten o'clock brought to, and found myſelf at day-break of the 2d, diſtant ten leagues from Cantaduanes. I ſet every ſail, and at half paſt eleven had reached its moſt north-weſtern point, and paſſed at a very ſhort diſtance from the laſt iſlots in the vicinity of that point. Thence I ſteered W. S. W., and to W., keeping cloſe to the wind to gain Siſiran, which port I neared at ſix o'clock in the evening.

I ſtood off and on all night, and the following day, 3d, came to anchor at two o'clock in the afternoon, and moored the frigate in the beſt poſſible manner, in expectation of the laſt orders which were to be ſent. As ſoon as I arrived I employed myſelf in exerciſing the men in every thing which might be of ſervice for our defence, in caſe we ſhould be attacked, and had it occurred, all were ſufficiently accuſtomed to the uſe of arms. I alſo wrote to the governor, informing him of my arrival at Siſiran, and requeſting his final orders.

Siſiran is ſituated in the vicinity of very high mountains, which render the air extremely damp. From thence likewiſe ariſe the continual hurricanes I experienced during my ſtay there. The perpetual damp occaſioned diſeaſes among my crew, of which I loſt one ſailor.

We were thirty or thirty-five leagues from the neareſt inhabited parts; and to have a communication with them it were neceſſary to climb ſteep mountains, inhabited by ſavages, which rendered this communication extremely difficult. It was not, in conſequence, without the greateſt trouble that I ſucceeded in procuring ſome of the refreſhments which I thought would be of ſervice to us in the courſe of ſo long a campaign.

To replace the two cables and ſheet cable I had loſt, I requeſted the alcade, or commander of this province, to get me new ones made, which he did, and

and ſent them as ſoon as finiſhed. I in like manner aſked for ſome anchors, but there was not one to the beſt of his knowledge throughout his whole juriſdiction.

On the 10th November an officer came on board and put into my hands a great box, containing diſpatches reſpecting his Majeſty's ſervice. The governor-general ordered me to ſend, with the utmoſt expedition, this box to his excellency the viceroy of New Spain, and to that effect, to make ſail towards the port of St. Blaiſe, or Acapulco, as I ſhould judge moſt expedient. I immediately got ready for my departure; but two ſucceſſive tempeſts delayed me till the 21ſt.

To ſail from the Philippines to New Spain, the veſſel muſt leave in June, the weſterly winds which then blow, carrying the ſhips to the eaſt of the Marianne Iſlands: at any other time a ſucceſsful voyage could not be hoped for. I therefore conſidered myſelf as on the eve of undertaking a voyage abſolutely new, on tracks of ſea, till then, almoſt unknown. Though a navigator might even have taken a courſe ſimilar to mine, had he the ſame winds? Had he ſteered the ſame points? Had he gone through the ſame parallels or meridians? I might therefore conclude the courſe I took had never been before attempted by any navigator.

I had nothing more at heart than the faithful execution of the orders entruſted to me, and to render my expedition uſeful to his Majeſty's ſervice, and the welfare of his ſubjects. This ſentiment animated me in ſurmounting my apprehenſions with reſpect to the abſolute ignorance I was in as to the courſe I was to take. My knowledge went no further than New Britain; and even in that run I might meet with an infinity of iſlands, of which not the leaſt veſtige was to be found on the marine charts.

M. de Bougainville, who ſailed from the eaſt of

New Guinea to the Cape of Good Hope in the ſame iſland, gives the poſition of only two ſmall iſles, which he called the Anchorèts, and a group of other flat inſignificant iſles, which he termed Mille Iſles* (Thouſand Iſlands). He has doubtleſs placed them in their proper latitude: but beſides theſe, not a day paſſed without diſcovering others on all ſides, of which any one may eaſily be convinced by looking over my chart. The only choice left me, and which I took from the firſt moment of my expedition, was to employ the moſt ſcrupulous attention, and exerciſe the moſt unceaſing vigilance during the whole courſe of our navigation, to acquit myſelf with honour of the commiſſion with which I was charged in ſpite of the continual riſks I had to encounter.

Though I had quitted a port from whence I could have been ſupplied with every thing neceſſary for ſo long a voyage, I at the ſame time was thereby ſpared much diſtreſs. My ſhip's crew were attacked by diſeaſe more or leſs acute: the proviſions, preciſely ſufficient for ſix months, were for the moſt part fly-blown and putrified; the water, limited to ſeventy pipes and forty barrels, without regarding the waſte, was a ſupply very inſufficient for a voyage of ſuch a length, and the cordage was ſuch that it broke the firſt time it was uſed. I deſired from the alcade ſome tar, of which we were abſolutely in want, but there being none in the province, I ſupplied its place with pitch. Though all theſe reaſons left me almoſt deſtitute of hope, my zeal for the King's ſervice ſuffered no abatement; and I prepared myſelf to undergo all the calamities with which the nature of our proviſions and the ſtate of the rigging threatened me.

* Bougainville did not give this group the name of Mille Iſles, but l'Echiquier.

Departure

Departure from Siſiran, on the eaſtern coaſt of Luconia, 14° 20′ N. lat. 126° 34′ weſt of St. Lucas, or Lucar, in California, 121° 20′ eaſt of Paris, 20′ weſt of St. Bernard, in the Mouth of the Strait.

I PUT to ſea the 21ſt November with ſlight breezes at E. N. E. and by E., which ſoon becoming ſtrong, and being directly contrary, I ran upon different tacks, to get to the north, and clear the Iſland of Cantuadanes. Theſe winds carried me to latitude 16° 14′, which I obſerved on the 30th. I then bore away to S. S. E., and again ſaw the iſland on the 3d December: its bearing was ſouth eaſt by a quarter ſouth, diſtant five leagues. I concluded that the currents* had thrown me back 2° 26′ to the weſt, notwithſtanding the correction I made in my N. N. W. courſe.

In this poſition, where I was detained by the winds, which prevented my ſteering S. E., I was aſſailed by a heavy mountainous ſea, and extremely violent winds, which frequently obliged me to lay to under the fore ſail, taking every poſſible method of getting to windward, to enable me to continue my voyage.

The 9th December, after running on different tacks, I found myſelf again in ſight of the Cantuadanes, from whence I took my final departure, the ſouthernmoſt point bearing W. N. W. 3° weſt, at the diſtance of ten or twelve leagues, which made me in 13° 24′ lat. and 122° 26′ long. eaſt of Paris, and 46′ eaſt of St. Bernard.

We then had tolerably fair freſh breezes from the third quarter, of which I took the advantage to run eaſtward till the 14th, when the winds veered E. N.

* Beſides the currents the lee-way had undoubled on the direction of the courſe; but it was apparently upon the calculation of this lee-way that the courſe had been corrected.

E. E.

E: E. and E. S. E. This change obliged me to keep two points nearer the ſouth. The 18th, according to one of the charts on which I had laid down my courſe, I muſt have been weſt of the Martyr Iſland at ſeven leagues diſtance; and between the 20th and 21ſt came upon that called the Triangle: but by another chart, I was on the 19th near the Yap Iſland, or Great Caroline, and on the 20th, off the Pelew Iſlands, without having obſerved either of them: but there could be no other cauſe for the ſhort and billowy ſea which we had, than the proximity of the Carolines or New Philippine Iſlands, agreeable to their ſituation on the French chart.

On the 29th, croſſing the line, I entered the ſouthern hemiſphere. The winds then came from the third and fourth quarter, ſufficiently freſh, but interrupted by frequent calms, which much incommoded us, owing to the exceſſive heat which they occaſioned. I then ſteered in the ſecond and firſt quarter, next to the eaſt, not however loſing ſight of my deſign to bear up rather to the ſouth, and fall in with the weſterly winds, which muſt predominate in the higher latitudes. Steering this courſe we remarked many large trunks of trees, birds of different kinds, boobies and others called dominicos. In this ſame courſe I propoſed taking an obſervation of the Mille Iſles, the moſt northerly and eaſterly of which Bougainville places in his chart at 1° 10′ ſouth, and ———* eaſt of Paris. I accordingly met with them on the 7th January; they extended from the 38th degree of the ſecond quarter to the 9th of the third†. The latitude of the moſt north-eaſterly one was preciſely as laid down on the chart, but its longitude

* The longitude is wanting in the M. S. It is 139 deg. 30 min. by Bougainville's chart. As to the reſt the Mille Iſles are clearly the ſame as his Exchiquier.

† Their extent muſt then have been from the eaſt 38 deg. ſouth, to ſouth 9 deg. weſt.

according

according to me 141° 12′ east of Paris. I determined on coasting these islands as near as possible, and took an infinity of their bearings which, together with the way the frigate made, enabled me to determine, with the utmost precision, the position of twenty-nine of these islands that we have discovered. There are undoubtedly many others in the southern part, of which we could not take account. It is impossible to describe, on the chart, the extent of each, when scarce any in the longest part is one league. They are all flat, and covered with trees; some are surrounded by reefs which join them to the neighbouring islands. On these reefs the sea breaks, but the breakers are only perceptible at a short distance. I continued to near these islands, so that I passed the most northerly at the distance only of two miles. At seven o'clock in the evening I descried many fires on the most eastern ones, and could not but be very much surprised at seeing such small portions of land inhabited.

Quitting these islands, I steered to east, a quarter north-east; and on the 8th discovered to the south, three degrees east, distant five or six leagues, two islots, which I named the Hermits; and in the evening of the same day saw the Anchorets at the north and west, distant five miles: I found them precisely in the latitude given by Bougainville. We at the same moment descried two small islots to the east: I passed to the south of them at midnight, at a league distant; I called them the Monks.

Thence I bore away for the north coast of New Britain: but on the 10th, scarce had the day broke when I discovered other islands to the S. S. E.* This and the following day I ran the length of the most westerly, at a reasonable distance. I took every pos-

* It is in the M. S. sudoeste: it should undoubtedly be read sudeste, or sud-sueste, south-east, or south-south-east; all that follows proves that this island could not be west of the frigate.

sible

ſible method by means of bearings to make myſelf acquainted with its true ſituation, and am ſure that its northern coaſt is eleven leagues long, and without doubt proportionably wide: far beyond the plains, which extend to the ſea ſide, are ſeen many high mountains. The chart gives its perſpective. Beyond this are four other flat iſlands, covered with trees, the coaſts of which, riſing in ſucceſſion, are bold and free from reefs, and I doubt not in the channels which ſeparate them is good anchorage, where ſhips may be ſufficiently ſheltered from the wind and ſea.

The inhabitants of theſe iſlands, ſeeing me on the 11th two miles diſtant from their moſt eaſtern point, came near in their canoes to the number of twelve, beſides many others which did not put to ſea. Curious to know the character of theſe iſlanders, I lay to: they came along ſide, but would not venture on board: they earneſtly requeſted ſome food, and preſſed us to come to anchor between the iſles. We threw them ſome cocoa nuts, and pieces of biſcuit, which they ſcrambled for with great eagerneſs, and almoſt fought to obtain; but when they ſaw at the poop a net containing ſome garden ſtuff, they uſed their utmoſt efforts to reach it with long wooden hatchets. All this was a convincing proof of the dreadful ſtate in which they lived; and ſo far from hoping for any refreſhment from them, I ſaw they wanted it themſelves more than me. I was therefore from neceſſity conſtrained to leave them in their miſerable ſtate. I ſaw no difference between them and the negroes of Guinea; colour, hair, lips, eyes, every part ſeemed to correſpond. The only arms of theſe people were arrows, but without bows to ſhoot with. The points were armed with very clumſy flints; they had alſo ſome fiſhing nets, which undoubtedly furniſhed them with their principal article of ſubſiſtence.

Purſuing my track, on leaving this iſland, to which I gave

I gave the name of Don Joſeph Baſco, I diſcovered in the evening of the ſame day ſix others, and named the moſt weſterly of the two neareſt the ſouth, St. Michael, and the moſt eaſterly, Jeſus Maria. Their coaſts are more extenſive than I ſhould have conceived from the bearings I had an opportunity of taking; for the mountains are very high, and the diſtance I was at did not permit me to overlook the whole extent of the coaſts.

I at the ſame time coaſted along two other iſlands at a diſtance of two miles. The moſt weſterly I called St. Gabriel, and the moſt eaſterly St. Raphäel: between theſe and the two preceding ones were two very ſmall iſlands, that of the north was called Flat, or Low Iſland, and the ſouth Oven Iſland. Thence ſtanding as before to the eaſt, I found I was at midnight to the north of three iſlands, which I named the Three Kings.

On the [illegible]th I left a very ſmall iſlot at the 38th degree of the third quarter, (S. 38° W.) at ſix leagues diſtance.

At half paſt one in the afternoon of the ſame day we deſcried at N. E. 3° E. another iſland eight or nine leagues off. It preſented to our view a very high mountain; and ſuſpecting it to be Iſle Matthias, which the French chart places north of New Britain, I ſteered E. N. E. to get nearer to it, and convince myſelf of its ſituation. At ſix o'clock in the evening the bearing of the mountain was at the 22d degree of the firſt quarter, (N. 22° E.) at the diſtance of ſix or ſeven leagues; and its ſituation, determined by our bearings, did not leave a doubt of its being Matthias Iſland.

I continued the ſame courſe to find out Stormy Iſland, placed on the French chart more to the eaſt. This iſland certainly has its proper name. We inceſſantly, during the whole night, experienced ſtrong guſts of wind, and a high ſea. Nevertheleſs, on the

13th,

13th, notwithſtanding the fogs and frequent ſhowers which began with the break of day, we diſcovered at the north-weſt by north, at ſeven leagues diſtance, another which ſeemed ſmaller than Stormy Iſland, as repreſented on the chart; but its diſtance, and the circumſtance of the horizon being far from clear, might have made it appear leſs than it in fact was. I at laſt judged this either to be Stormy Iſland, or a little one very near it.

As, according to my obſervations, I found the ſouthern point of Matthias Iſland to be in latitude 1° 23′, and the French chart places it 2° 10′, I thought it better to give this laſt up, and I placed this iſland on my chart in the latitude I concluded it to be in from the obſervations I made at noon, and which I believe to be very exact*. I have corrected the latitude of Stormy Iſland in the ſame proportion. The poſition of theſe two iſlands, ſo cloſe one to the other, are doubtleſs ſubject to the ſame error.

On a compariſon of my longitude, reckoned from Matthias Iſland 144° 20′ eaſt of Paris, with that of 145° 35′, which is aſſigned it on the chart †, I found my point, according to the chart, was erroneous by 1° 15′ towards the weſt. Suppoſing the diſcoverers of this iſland to have accurately aſcertained its diſtance by the Cape of Good Hope of New Guinea ‡, I corrected the longitude of 143° 39′ eaſt of Paris, which I obtained at noon for that of 144° 54′ which was the reſult of the longitude of Matthias Iſland.

* The latitude of the ſouthern point of Matthias Iſland is 1 deg. 38 min. in Bougainville's chart.

† The longitude of the ſame point is on the ſame chart 145 deg. 10 min. Stormy Iſland is there repreſented double: the middle of the moſt eaſtern iſland is there 1 deg. 45 min. lat. and 145 deg. 37 min. long. Bougainville ſaw, but took no obſervation of theſe iſlands.

‡ Modern navigators would rather regulate the diſtance of this iſland by Cape St. George, whoſe geographical ſituation is better determined than that of the Cape of Good Hope of New Guinea.

I diſ-

I distributed this well-timed correction over the position of the islands I before discovered. I therefore fixed my new point of departure in long. 144° 54′.

The same day, 13th January, I came in sight of an extensive coast; the second and third quarter of the horizon (throughout the whole of the south) was loaded with clouds, thick fogs, and tornadoes. If the weather became fine, it soon changed again, so that it was impossible for me to determine what land I saw. I believe it to be, however, the coast of New Britain, as well because, the following days, we continued to discover portions of land, which could only belong to a large island, or continent, as because that in coasting these shores we distinguished very high mountains, such as are rarely seen in small islands.

In the afternoon of the 14th we saw a high mountain in the south-west, and a coast of great extent from east to west. There was no doubt of its being a coast of New Britain. I could not exactly ascertain its bearing, being twelve leagues distant. I at the same time passed near three other isles, which bore from me S. by S. W., to the most northerly of which I gave the name of St. Francis; it was two leagues and a half off; the middle one I called St. Joseph, and the third St. Anthony: the latter was distant seven leagues and a half. After passing them, we at midnight saw a little island at 10° of the second quarter (E. 10° S.) which I named St. Peter.

We saw two islands on the 15th; at noon they bore S. E. 8° S. at the distance of ten leagues. The most western was termed St. Laurent: the most eastern St. Blaise.

From the 15th to the 17th the winds were light and changeable from the first to the fourth quarter: on the 17th a small island came in view, to which I gave the appellation of St. Hyacinth; its bearing

58° of the third quarter, or W. 32° S. diſtant ten leagues.

On the 18th we diſcovered, eight miles off, three other iſlands, one of which runs from north to ſouth; the moſt weſterly was named St. Roſe, the large one Refuge Iſland; and the ſmall one, very near the foregoing, Madalene. The ſame day we ſaw, to the ſouth-weſt of Refuge Iſland, a coaſt covered with very high mountains. I ſuppoſed myſelf twelve leagues from its ſhore, in the direction of 65° of the firſt and third quarter (N. 65° E. and S. 65° W.). This was the only aſſiſtance I had in determining the poſition of this iſland.

I at firſt doubted whether this land were not part of New Britain: but was afterwards convinced of its being the iſland of St. John, repreſented on the French chart as a large iſland, and ſituated in the parallel where I obſerved it *; the more ſo, as we had ſeen numberleſs little iſlands ſince that of Matthias, none of which could be taken for the iſland of St. John.

The 19th at ſun-riſe we ſaw two very low iſlands, both of which run from N. W. to S. W. at ſix leagues diſtance: they were ſeparated on a narrow ſtrait, open on the S. W., which we named Les Caimans.

At ſun-ſet we came in ſight of two iſlands towards the ſouth; the moſt northerly, which was very ſmall, had the name of St. Anne, the other St. Barbe; by my bearings the length of the coaſt of the latter was ſeven miles.

* I ſhould like to know by what French chart our navigator ſteered. The Iſland of St. John is placed, according to a chart of Fleurieu, in 3 deg. 45 min. lat. 150 deg. 32 min. eaſt of Paris: but by Carteret's Voyage, (French edition, 4to.) the chart of which is on a larger ſcale, the latitude is 4 deg. 19 min. long. 153 deg. 3 min. eaſt of Greenwich, 150 deg. 43 min. eaſt of Paris. Carteret obſerved this iſland. The author of the *Diſcoveries of the French*, page 300, (Engliſh edition, printed for Stockdal) is decidedly for 4 deg. lat. and 151 deg. 30½ min. eaſt of Paris.

At

At day-break the center of a large iſland, which I named Don Manuel Flores, bore S. 5° W. at the diſtance of 13 leagues; upon it was obſerved a pretty high mountain, and its coaſt appeared to run from E. S. E. to W. N. W. for the ſpace of ſix leagues.

At eight o'clock in the morning we got ſight of nine iſlots, which I did not doubt of being the Ontong Java of the French chart. The latitude of theſe iſlands is preciſely the ſame as thoſe which is aſſigned to the center of Ontong Java on the chart. I ſteered directly for them to get as near as poſſible, and obſerved that they were ſurrounded by a ſand-bank which cannot be ſeen till within two miles of the coaſt. Near the edges of this bank we ſaw, above the water, at ſhort diſtances, ſome ſmall rocks a very little way from the ſand-bank itſelf.

The bank leaves a narrow opening on the ſouth coaſt, oppoſite to which the latitude was by obſervation 4° 53′; we were but two cables' length from this mouth, which leads to a gulph where the ſea is perfectly ſtill, and where is a ſecure harbour, if neceſſary to put in for wood or water. This gulph is ſheltered on the north by the iſlots: we gave it the name of Princeſs's Harbour. On the chart we have given a very correct plan of this port, paſſing it near enough to be anſwerable for the accuracy of the draft*.

From

* Ontong Java, (or Jaba, which is all one to the Spaniards) was diſcovered they ſay in 1616 by Maire and Schouten. They enumerated twelve or thirteen iſlands, but did not obſerve them any thing like ſo near as our navigator. At a diſtance they could not have ſeen ſome very low ſlips of land, which connected two parts of one iſland, and thus they deſcribed one iſland as two. In 1767 Carteret diſcovered, in the ſame latitude, nine iſlands which he conceived to be the Ontong Java of Schouten. Theſe iſles extended from the N. W. a quarter W. to the S. E. a quarter E. for the ſpace of about fifteen leagues, one of which is very extenſive; whereas Ontong Java does not extend three leagues, and all the iſlands of which it is compoſed are very ſmall. Notwithſtanding

From theſe iſlets, which are not above a mile from each other, iſſued out about ſixty canoes which approached us within a ſhort gun-ſhot; but the wind being favourable, I did not think it worth while to wait for them, but ſtood on always in the ſame courſe. They returned to their iſlets, on which it appeared to me impoſſible for human creatures to ſubſiſt. We ſaw there a tolerable number of palm-trees, which no doubt bore fruit, and by this and the help of fiſh, theſe iſlanders drag on their miſerable life.

After leaving Ontong Java I continued my way with gentle pleaſant winds during the day, but ſtormy in the night, which obliged me to keep a ſtrict look out for whatever might offer itſelf to our view, and recommended a ſimilar vigilance to all the ſhip's company. They at once ſaw the riſks we had to encounter; conſequently no ſooner was an object deſcried in the horizon, than I was informed of it; the iſland obſerved, and the danger avoided.

I ſailed the 22d without ſeeing any land, but the night being dark we heard at ten o'clock a dreadful roaring in the N. E. and ſaw wide of the ſhip's quarter, at an inconſiderable diſtance, the ſea all white with foam. I was obliged to bear away to the S. W. until the noiſe of this ſhoal, which I called the Snorer*, were no longer heard. I then ſtood again to the eaſt as before.

If the many accidents which occurred during my voyage be taken into conſideration, the conſtancy I invariably ſhowed in my aim at two objects of equal moment, yet directly oppoſite one to the other, may be eaſily conceived. My commiſſion required the ut-

this, we ſhall endeavour to prove that the nine iſlands of our navigator, as well as thoſe of Carteret, Maire and Schouten, are one and the ſame groupe, diſtinct from the Ontong Java of Taſman.

* Fleurieu takes this Snorer (Le Ronfleur) to be the ſame rock as the Candlemas Shoals of Medana, which is not improbable.

moſt

moſt celerity, and conſequently obliged me to preſs every ſail without a moment's loſs of time. On the other hand the tornadoes under the line only took place during the night; the winds then freſhening conſiderably, rendered the air dark and gloomy, emitting thunder and lightning. During the day there was almoſt a perfect calm, and I could therefore take advantage of the night alone to get forward. At one time I fell in with land during the day, at another during the night. Prudence undoubtedly required me not to expoſe myſelf to dangers which might in an inſtant put an end to the very aim of the voyage; but I might thereby have experienced a delay which had been prejudicial to my commiſſion. I therefore ſupplied the defect of tardy prudence by the moſt active vigilance in looking out for every obſtacle that might preſent itſelf, and profiting by every favourable breeze.

For the remainder of January the winds were light, and blew between N. N. W. and N. E.; obliging me either to purſue my courſe eaſterly, or in the ſecond quarter next to it. I therefore encreaſed my ſouthern latitude, without having it in my power to bear up to the north, the wind conſtantly blowing from the firſt quarter, except a few puffs which came from the fourth and ſecond quarter, and of which I took advantage by nearing the line: but the calms were ſo frequent, that the longeſt way I made in twenty-four hours was but 70 miles.

From the commencement of February the calms were yet more conſtant: from the 6th to the 17th our longeſt run being 40 miles, and commonly only from 12 to 15. I in vain endeavoured to paſs to the north of the line, in hopes of doubling the weſtern ſhoals of St. Bartholomew *: light airs from the N. N. W. and N. N. E. obliged me to ſteer in the

* This I gueſſed at, as the M. S. gives no intelligible meaning: I think my gueſs is tolerably right.

fourth quarter to a point ſo near weſt, that I loſt the longitude I gained in the eaſt at the expence of ſuch multiplied hazards. Theſe reaſons induced me again to keep my way in the firſt quarter, in hopes that the eaſterly winds would ſoon facilitate my getting northward of the line.

As my voyage was lengthing, I took the precaution from the 20th January of leſſening the ordinary ration of bread, two ounces per man, beſides an ounce leſs in the pound, which I took off the moment we embarked: but on the 16th February, ſeeing that time did not ameliorate our condition, and conſidering that we were at firſt only victualled for ſix months, that the 70 pipes and 40 barrels of water put on board were not near ſufficient for that ſpace of time only; that where I then was, in S. lat. 3° 32′ and long. E. from Paris 174° 8′, with ſcarcely proviſions left for three months, and a very inſufficient quantity of water, I concluded that neceſſity required the diminution of a ration more, which I ordered from that day, reducing it to two thirds.

Our diſtreſs was infinitely increaſed by the innumerable quantity of cockroaches* which infeſted our ſhip. The biſcuit was much lighter than when firſt put on board; but what diſcouraged me moſt was the ſtate of our water caſks, which we not only found empty, but frequently unſerviceable, the cockroaches having perforated the ſtaves by holes as big round as two fingers.

After moſt ſeriouſly reflecting on all theſe circumſtances, I conceived that it was not poſſible for me to continue my courſe north of the line, without putting into ſome iſland to replace the water I had

* Cancrelas, or Kakerlaque, is a coleoptorous inſect like a cockchaffer, but larger and much flatter; it ſoils and devours every thing. It is ſaid to be called ravet at the Antilles; the cockroaches of the Iſle of France ſeemed to me much larger than the ravet of St. Domingo, but they are equally tormenting.

loſt.

loſt. I could not flatter myſelf that I ſhould reach the Marianne iſlands in time. The reſult of my reflections was the reſolution of ſtanding for Solomon's Iſlands, which I was then 107 leagues weſtward of; hoping the winds, which blew from the North, would not prevent this, and from thence I might with greater ſecurity and ſpeed reach the Preſidio of Monterey.

I therefore made ſail for Solomon's iſlands; but the winds blowing uninterruptedly from the firſt quarter next the North, obliged me to drive inſenſibly to the South. The 20th February, I found myſelf 17 leagues weſt of the Cape of Santa Cruz or Guadalcanar. We then began to meet with breezes from E.N.E. and E.; which made me loſe all hopes of putting into, or even getting ſight of Solomon's iſlands. Finding myſelf therefore in 12° S. lat. I was compelled to take the reſolution of getting into the ſouthern hemiſphere, confident that I ſhould fall in with ſome iſlands where I could remedy the extreme dearth to which I was reduced; at the ſame time not without the hope, after having traverſed 20 or 22 degrees of latitude, of meeting with winds favourable for carrying us eaſtward, which I could not promiſe myſelf in navigating in the north, unleſs by puſhing on to 44 or 46 degrees, and keeping cloſe to the wind, which would have been an infinite loſs of time; and even in adopting this courſe, I muſt ſtill have put in to the Mariannes.

After theſe and other reflections which never ceaſed to torment me, I reſolved to ſteer in the ſecond quarter (between Eaſt and South) purſuing that courſe while the eaſterly winds would permit. On the 26th I ſaw a ſmall iſland, which I immediately ſtood for, hoping to caſt anchor and take in water there. The crew leaped for joy, thinking that this iſland would put an end to all their wants; their joy equalled their diſtreſs, but not for long: when with-

in two miles of the iſland, we clearly ſaw, that ſo far from any anchorage, not even a boat could get aſhore. It was abſolutely barren; on its mountain, which was by no means ſmall, there was not a ſingle tree to be ſeen. This was named Bitter Iſland.

On the 27th we diſcovered an iſland directly a-head, on which was a very high mountain, its ſummit apparently burnt, but the declivity, covered with trees, diſplayed an agreeable verdure. We plainly diſtinguiſhed many cocoa-nut trees, which ſtrengthened my deſire to bring to; but the lightneſs of the breeze would not ſuffer me to get nearer than about a league from its weſt ſide, from whence came many canoes with cocoa-nuts and bananas, and exchanges immediately commenced. The Indians came on board with the moſt perfect confidence; he who commanded them manifeſting the moſt tender friendſhip, dancing on the deck, and ſinging ſeveral ſongs. Among other preſents, he gave us a large kind of counterpane, like blotting-paper, but compoſed of two or three ſorts of ſheets interwoven with each other, to give more ſtrength to the texture. I returned his civility, and he retired well ſatisfied. He told me that this iſland, of which he was the chief, was called Latte, fertile in different ſorts of fruit, with ſoft water in abundance, and that I ſhould find good anchorage. This news was very ſatisfactory, but, for my own part, I could diſcover no place where I could be ſecurely ſheltered.

In ſtretching round the iſland to look for a good anchoring place, we ſaw at E. N. E. about 12 leagues off, other iſlands not ſo high, but of greater extent, with ſeveral channels between them; the wind faint but favourable for our approach. The perſpective of theſe iſlands promiſing abundant relief, I bore up for them.

The calms and light contrary airs, which I experienced on the 1ſt of March, was of many days duration,

duration, but on the 4th, after ſeveral tacks, I ran into an opening, formed by theſe iſlands, at N. W. and came to anchor in 45 fathoms, at a ſhort diſtance from land, whence we ſaw within the gulph, houſes, abundant plantations of banana and cocoa-trees, very ſatisfactory appearances as to water, which laſt was neareſt our hearts; and in ſhort, in the interior of this groupe of iſlands, many harbours, where veſſels might lay in ſafety from the rage of the winds and ſea: ſo that we were thoroughly perſuaded of our miſery being at an end.

In the evening of the ſame day, we drew up the anchor, and as the depth of water conſiderably increaſed, I gained the offing by ſhifting the anchor to the water's edge (or between wind and water) ſo that it would be ready to let go again. As ſoon as it was weighed, I again tacked towards the port, and the 5th at day-break, anchored in 38 vares (about 27 fathoms*) bottom of ſand and ſtone, two cables' length from the ſhore, in a creek where, the evening before, I had ſeen the houſes.

Every day which I loſt in getting near theſe iſlands, from fifty to a hundred canoes came along ſide, bringing pigs, fowls, bananas, and potatoes, which had ſomething of the flavour of cuſtard; ſome of theſe potatoes were five vares long,† and in thickneſs about the ſize of a luſty man's thigh; the leaſt weighed three pounds. They offered us, likewiſe, a kind of cloth woven from the bark of the palm-tree, others of a finer make, and laſtly, ſome of the cloaks or counterpanes, reſembling blotting-paper, of which I have already ſpoken; the counterpanes, particularly, they held in high eſtimation. All the commerce was carried on over the ſhip's ſtern. The iſlanders wanted

* I think it ſhould be 38 fathoms.

† The Spaniſh word popa or papa, ſignifies a kind of panada, made with milk, with which infants are fed. It ſeems very juſtifiable to ſuſpect exaggeration in the length of the potatoes.

in change for their fruit and produce of their manufactures, hatchets, adzes, and other cutting inſtruments; but I forbade, under the ſevereſt penalties, that any ſhould be given, and I believe I was obeyed. They were, therefore, obliged to content themſelves with bits of cloth or ſtuff. My crew cut their ſhirts, jackets, and trowſers into pieces, and with theſe bandages procured pigs, and other refreſhments. On account of theſe proviſions, I ſuſpended the allowance of meat, and reduced that of the bread to one half.

The Indians who came on board preſſed me to go into the interior of their archipelago; each pointed out his iſland, aſſuring me I ſhould there find water and every thing elſe I wanted: the equis or captains ſhewed me the greateſt friendſhip as they arrived, and I endeavoured not to be in their debt. Many ſat down at the table with me, though they only partook of their own fruits. I imagined that theſe iſlanders were divided into many caſts or tribes, from the number of their equis; but, on the other hand, I obſerved among the whole the greateſt harmony.

We were likewiſe viſited by women, whoſe countenances were by no means diſagreeable; their clothing conſiſted in a kind of petticoat, which reached from the waiſt to the feet; the men were dreſſed the ſame. I admired the fine bulk of the latter; ſome of them whom I meaſured being ſix feet four inches high, and large in proportion, and theſe by no means the talleſt. It is certain that the ſhorteſt of thoſe I ſaw, equalled the talleſt and ſtouteſt of my ſhip's company. Theſe iſlanders are in general tall and robuſt

We no ſooner caſt anchor than I received a preſent of fruits ſent by the Tubou; the meſſenger being, as I was told, his ſon. This name of Tubou, which the equis repeated with a particular tone of affection—what can it ſignify? I then thought that it

it denoted apparently the equi of the iſland, near which we were, who muſt hold ſome pre-eminence over the others, on account of their reſpectful manner of treating him. Whatever it might be, I received his ſon in the beſt poſſible manner, from the wiſh to conciliate his friendſhip, that we might meet with no impediments in our operations, when we went to take in water, and that he might, on the contrary, favour us with all his authority.

From eight in the morning the frigate was ſurrounded by a hundred canoes: the cries of thoſe who manned them and bartered around the ſhip, were ſo ſhrill, that it was not poſſible to hear each other on board. Nevertheleſs, this ſame hour they informed us that the Tubou was coming to pay us a viſit, who no ſooner approached, than all the canoes which were on our ſtarboard ſide diſperſed. I received the Tubou with every poſſible mark of reſpect. His age and enormous ſize had deprived him of the agility neceſſary for getting on the deck; ſo that his equis, whom till then I had conſidered as little kings, were under the neceſſity of ſupporting him on their ſhoulders, while he mounted the ladder. He was followed by his wife, who ſurpaſſed in beauty all the other females I had ſeen on this iſland; and I could almoſt at once have ſworn that ſhe was daughter of ſome European, ſo ſtriking were the graces I remarked in her; and not being at moſt in her twenty-fifth year, youth ſtill added to her charms. They both took their ſeats on the watch-bench, and all the others profoundly proſtrating themſelves, kiſſed the feet of the Tubou. He brought me as a preſent a canoa * load of potatoes. In return, I decorated both of them with a ſcarf of flame-coloured ſilk, from the neck to the waiſt, to which I ſuspended by a fleſh-coloured ribband, two large piaſtres ſtamped

* The Spaniſh term canoa, means boat; but the boats of the South Sea were probably only canoes.

with

with the reſemblance of our auguſt ſovereign. I at the ſame time diſtributed ſeveral reals * with the ſame ſtamp, to be at a future period incontrovertible proofs of our having put in here. The ſubordination of the equis towards the Tubou was ſuch, that none of them dared to be ſeated in his preſence: even his ſon, who before his arrival affected a majeſtic gravity, was now as reſpectful as the others. I can ſay with truth, that the Tubou ſcarcely honoured them with one or two words. I conducted them to the ſtate cabin; they were ſtruck with admiration at the ſight of the equipment of the frigate and other things which I ſhewed them. In ſhort, quite ſatisfied with the reception they had met with; they retired, after giving me unequivocal aſſurances of their moſt ſincere friendſhip, and a thouſand embraces, with which the good old man inſtantly overwhelmed me.

To avoid the exceſſes which the crew often give themſelves up to when they go aſhore, I publiſhed an order, threatening with ſevere penalties, any one that ſhould diſturb thoſe iſlanders, under whatever pretence.

I deſired my men, notwithſtanding, to keep themſelves at all events on their guard; and to give the Indians an idea of the power of our arms, I ordered a few guns to be fired againſt the rocks; the noiſe produced by the bullets and caſe-ſhot inſpired them with the greateſt fear, and they intreated that I would not repeat it. This diſcharge in the preſence of twelve or fifteen hundred perſons produced the deſired effect, inſpiring them with the dread of our arms, which I hoped in the ſequel they would not put me under the neceſſity of employing againſt them.

On the 6th I choſe from among my complement,

* The piaſtre contains 20 reals; the real is worth a trifle more than two pence half penny of our money.

fifteen

fifteen men, well armed with muſkets, piſtols, ſwords and cartridge, and embarked with them in the boat, which carried four ſwivels; we landed on the beach, which I found covered with men and women, whom I made diſperſe, and brought up my force, in order, under arms, at about ten vares * from the boat; the ſwivels were pointed againſt the crowd of Indians, in caſe we ſhould perceive any hoſtile movement.

The Tubou's ſon offered to conduct one of my men to a running ſtream of water; but after having walked for half an hour and aſcended a ſmall hill, he ſaid they were ſtill at ſome diſtance from it; the perſon I ſent thought proper to come back to the beach, where I waited his return. I had, however, ſunk a well on the beach, which, when on a level with the ſea, gave water though not fit to drink. I cauſed another to be dug twenty vares from the beach, wiſhing to avoid the neceſſity of weighing anchor, and taking the frigate more within the archipelago, where they gave me the moſt poſitive aſſurance of finding water. To do that I muſt give up many days, and I did not like to loſe time.

On the 7th, I was in my boat, with a detachment well armed, and an Indian accompanied me to one of the places where they told me I might be ſure of water; but this water was too far from the ſhip. After filling a few barrels I returned, with the reſolution of continuing the well I had begun. I went on ſhore the ſame day, always taking like precautions; the work of the well advanced, which I left in ſuch a ſtate as to be able to afford us water on the morrow.

The Tubou or king, came to pay me a viſit in great pomp; the equis were ranged in two files, with venerable old men at each extremity; walking

* The vare is equal to about three feet.

before

before the king. The Tubou, as a proof of his tender friendſhip, careſſed and embraced me a hundred times. His retinue ſat down, making a large circle, in the ſame order which it arrived in. Two carpets made of palm were brought; the king ſat down on one, and made his ſon be ſeated on the other, at his right hand. The whole kept a profound ſilence; thoſe only near the king and whoſe great age certainly made the moſt reſpectable, faithfully repeating all his words. Some roots were ſoon brought, with which they made a drink in a kind of troughs. By the faces of thoſe who drank it muſt be very bitter. This refreſhment was ſerved up in veſſels made of banana-leaves. Three or four young Indians preſented it to the Tubou and me firſt. The iſlander neareſt the Tubou pointed out thoſe who were to drink; the others were not offered any. Roaſted potatoes and perfectly ripe bananas were afterwards put before me, of which I eat. Soon after two canoes appeared full of the ſame kind of proviſion, to be divided among my ſoldiers. This refreſhment over, the Tubou returned home: I returned the viſit, appointing the firſt pilot to command in my place, with orders to let nobody approach under any pretext whatever. The Tubou received me in the beſt poſſible manner; the queen ſoon appeared, preceded by eight or ten young girls, from ſixteen to eighteen years of age, all of whom waited upon her; ſome drove away the flies which might incommode her, on the others ſhe leaned. She was wrapped up in many cloaks which made her look extremely fat. She receiving us with a ſmiling countenance, graciouſly repeating the word liley, liley, liley, which ſignifies very well or welcome. After the firſt viſit, I made but few others, leſt the Tubou ſhould ſtrip himſelf of all his clothes to put on me, which is conſidered as a ſignal mark of favour. The king gave me two great doradoes

doradoes * and one of his weapons, which was nothing but a ſtick of acana † painted of different colours. I returned on board, hoping to get water on the morrow.

Our well being completed, in the evening of the 8th, we began to draw water, to the great aſtoniſhment of the Indians; but it was ſo bad that we were compelled to give up this method of getting a ſupply. I this day made a ſecond viſit to the King and Queen, who never miſſed ſending, every evening, a great quantity of roaſted potatoes, undoubtedly from a recollection of the large number I had to feed. As ſoon as I was aſſured of the unhealthineſs of the water near the ſea, without hopes of finding any but at a great diſtance from the bank, owing to the proximity of the mountain, I weighed anchor and brought to in another bay, at a league and a half or two leagues diſtance. On weighing one of the anchors, the cable, which was in uſe for the firſt time, abſolutely failed, all the ſtrands of which it was compoſed having broken; the whole length of the cable was entirely rotten and unſerviceable. I tried to fiſh up the anchor but in vain, not being able to ſtay long, and the depth of water giving me but little hopes of meeting with it eaſily.

The new bay was perfectly protected both againſt the wind and ſea, which I ſome days after experienced, the weather being extremely violent out at ſea, with a wind from the N. and N. W. and I perceiving no other effect from it than a guſt now and then, which came from that direction. I was at anchor in 32 fathoms in a bottom of ſand and ſtone; ſome hills, which formed the harbour on the north ſide, completely ſheltered us; the bottom all around us was rock.

* Dos dorados. The Spaniſh word dorado, taken adjectively, ſignifies gilt, ſubſtantively, I know no other meaning than dorado, a well-known fiſh.

† I am ignorant of this kind of wood.

On

On the 9th, we began taking in water, at only five vares diſtance from the beach. The work went on faſter than I wanted it, the equis having commanded their Indians to roll our caſks, but when the Tubou came no one beſides himſelf dared to give any more orders.

The 10th, 11th, and 12th, we got as much water as we choſe to put on board; an innumerable quantity of canoes came however to barter, and their confidence in us was ſuch, that many paſſed the night and ſlept on board.

During this time, the king invited me to a feaſt, which he deſigned preparing for that purpoſe. When I went athore on the 12th, I ſaw in the thick wood near the port a vaſt circular ſpace, which had been cleared with ſuch care, that not the leaſt veſtige of what it had been, remained. A little after, the Indians went two by two to the Tubou's houſe with long poles on their ſhoulders, from which were ſuſpended many potatoes, bananas, cocoa-nuts, and fiſh. Theſe, by the direction of the Tubou, were taken to the newly cleared camp, where they were piled, in a cubical form, to the height of two vares. The equis and venerable old men came to conduct the Tubou, who took me by the hand, and we repaired to the vaſt circle, where upwards of 2000 Indians waited our coming. We took our ſeats on the carpets of palm prepared for that purpoſe, as did all the people, always keeping each caſt or family diſtinct, as they never mix with each other.

The king then made me an offer of all the fruits, and had them taken to my boat, which they completely filled. The porters being returned to their reſpective poſts, a profound ſilence was obſerved, while the king ſpoke; thoſe who had the right, from their age and dignity, of ſitting near him, repeating all his words. Not knowing to what this tended, I ordered thoſe of my ſoldiers, whom I had left

in

in command of the first pilot, to hold themselves in readiness to fire both with their muskets and pistols, should they perceive any hostile movement. A strong robust young man now stepped forward from the ranks, the right hand placed on his breast, and striking his elbow with his left, making many gambols round the place opposite the groupe of different tribes to himself. One of another tribe then stepping out with the same gestures, they began to wrestle, laying body to body, closing with, and repelling each other with such animosity, that their veins and nerves swelled and extended prodigiously. At last one of them fell with such violence, that I thought he would never rise again; he nevertheless got up all covered with dust, and retired without daring to turn aside his head. The conqueror presented himself to do homage before the king; while those of his tribe sang, but whether in praise of the conqueror, or contempt of the vanquished, I cannot say.

These wrestling combats lasted two hours; one of the combatants had an arm broken, and I saw others receive terrible blows. While this wrestling lasted, other champions with their hands and wrists bound with thick cords, which served instead of gauntlets, presented themselves. This kind of combat was far more dreadful than the wrestling, the combatants, from the commencement, striking at the forehead, eyes, cheeks, and all parts of the face, while those who received the blows became more impetuous and ardent. Some were felled to the ground by the first blow. The assembly regarded these combats with a certain degree of respect, and all were not indiscriminately admitted to them.

Some women, particularly those who attended on the Queen, assisted at this fête, and I found them quite otherwise than what they had hitherto appeared to be. I had not judged of them unfavourably, but on this

this day they were clothed in their beſt attire, with their mantles well plaited and tied up in a knot on the left ſide, chaplets of large glaſs beads round their necks, the hair carefully dreſſed, the body waſhed and perfumed with ſweet-ſcented oil, and ſo clean a ſkin, that they would not have ſuffered the ſmalleſt particle of ſand to remain on it; they completely fixed my attention, appearing more beautiful than ever.

The King ordered the women to fight with their fiſts like the men, which they did with ſuch fury, that had they not been ſeparated now and then, they would not have had a tooth left. The ſpectacle touching me to the ſoul, I intreated the King to conclude the combat, which he did; and all applauded the compaſſion I had for theſe young females.

The Toubou, after this deſiring an old woman, who carryed a tin bottle at her neck, to ſing, which ſhe did for half an hour without ceaſing, at the ſame time with ſuch accompanying geſtures and action, as might have led us to take her for an actreſs declaiming on the ſtage.

The entertainment at length concluded, and we returned with the King to his houſe, where I found the Queen, who received me with her cuſtomary marks of regard: I aſked her why ſhe was not preſent at the feaſt, to which ſhe anſwered, that thoſe ſorts of combats were by no means agreeable to her.

The bands of friendſhip were ſo cloſely tied between us, that the Tubou called me his hoxa or ſon. I took leave of the Queen and him, and returned to embark. The beach was entirely covered with the natives, who loaded my people with a thouſand careſſes for having condeſcended to aſſiſt at the feaſt. The conquerors even took me on their ſhoulders and carried me to the boat. The Tubou, who from his houſe ſaw this crowd, and knew how much I ſuffered when the Indians mixed with my men, ordered

dered his captains to purſue them, and he himſelf went into ſuch a paſſion, that he ran out with a great ſtick, ſtriking ſuch as came within his reach. All ſaved themſelves in the woods but two, worſe mauled than the reſt, who were left for dead on the ſpot; whether they recovered I do not know.

Nothing now prevented my putting to ſea, which I was reſolved to do on the 13th, but a guſt of wind from the N. and N. W. that roſe the ſame day, and blew almoſt directly into the channel through which I muſt go out. The wind roſe higher and higher, notwithſtanding which, the ſea at our anchorage was ſcarcely agitated more than ordinarily; for all that, and riding at three anchors, the ſheet cable gave way and I remained with the hope* and third anchor only.

On the 15th, the wind ſomewhat abated; but when I worked ſhip to get under way, the cable of the hope broke, ſo that I had now nothing more to hold by than the third anchor. Theſe accidents, joined to the croſſes I met with in the courſe of my navigation, much diſconcerted me. All my cables were rotten, as were the haliards, ſheets, tacks, braces, ropes, and, in a word, all my tackling †. The bad ſtate of my rigging left me in the dreadful expectation of loſing the only anchor I had, and ſhould that happen, I could not but conſider my loſs as certain in thoſe diſtant climates.

To remedy our moſt immediate want, I faſtened a cable to a neighbouring rock, which, conjointly with the remaining anchor, ſerved to hold me faſt. I alſo employed ſome of the men to endeavour to look for and fiſh up the two loſt anchors; after a labour of

* Is the name of an anchor in Spain.

† I here omit a long detail of the damage the tackling ſuſtained, and a tedious ſtory of the author's complaints; that would not be very amuſing to the reader; beſides which there are ſeveral errors in the manuſcript.

twenty-four hours we found it uſeleſs, the water being too deep.

The vexations whereby I was tormented, did not permit me to accept an invitation the Tubou gave to aſſiſt at an entertainment ſimilar to what he had before given on my account: but this prince, who called me his ſon, and undoubtedly loved me as ſuch, did not forget to ſend every evening two baſkets of potatoes, ſome fowls, and fiſh. He ordered the whole great quantity of proviſions which had been got together for this new feaſt to be brought to me; and came ſeveral times to the frigate, often dining with me, and afterwards taking his afternoon's nap on board.

On the 16th, I endeavoured to ſet off, and the wind being contrary, ran upon different tacks, and although the current was alſo againſt me, and the gut ſo narrow as hardly to give me room to tack about, I found myſelf at the laſt tack to windward of all the points; but a furious ſquall blowing directly in my teeth, threw me back among the rocks through which I was ſteering. I was now more than ever perplexed, having no choice left but to return to my old harbour, let go the anchor, and carry a cable ſpeedily on ſhore to hold me in the beſt manner that was poſſible. I, on the 18th, ſent my firſt pilot in the boat to ſound another channel, ſhut in, it is true, by ſeveral iſlands, but which, however, promiſed us an eaſy entry with the then prevailing winds. The pilot, on his return, aſſured us that the channel had throughout a good bottom, entirely free from ſhelves, and the paſſage large enough for running on tacks if requiſite. I accordingly got ready for going out on the 19th, and at two o'clock the ſame afternoon, had cleared all the iſlands, which was all that I could then deſire.

The Indians and Tubou were not prepared for this ſeparation which they undoubtedly were much affected with: the king and queen took leave of me with

with the greateſt demonſtrations of ſorrow, and the Indians, in their canoes, accompanied us till we were out of their archipelago.

This port, which I named Refuge Harbour, is formed by three tolerably large iſlands and ſeveral ſmaller ones. The whole group I called Don Martin de Mayorga. The port is ſituated in 18° 36′ ſouth, and 179° 52′ eaſt of Paris. There may at all times be found the moſt favourable ſhelter: the winds blowing in vain with their greateſt fury, the ſea could not be more tranquil, and the hurricane itſelf loſes its power. At entering between theſe iſlands, whether by the W. N. or S. W. channel, the depth is from fifty to fifty-five fathoms, bottom of ſtone and ſand, which ſame depth continues to the center of the gulph two cables length from ſhore, when it is only from thirty-five to forty fathoms. In ſome creeks the depth decreaſes even to twelve or fifteen fathoms. In this place are neither ſhoals nor reefs; the anchorage muſt, however, be choſen by the plumb, in ſome bays the bottom being partly earth* and partly ſand.

The fertility of the earth is ſuch that it cannot but promiſe a favourable harveſt. An immenſity of cocoa and banana trees, ranged in rows with the moſt delightful regularity, are ſeen all around, much potatoe ground, as may be concluded from the great quantity ſent on board, with other roots very pleaſant and nearly of the ſame ſpecies. Lemon trees, ſugar canes, fruit much reſembling apples, oranges, &c. In ſhort, two or three equis having once conducted me to a fruitful country, I admired the order with which every thing was diſpoſed, no weeds being ſuffered to grow among the plants: their roads are kept up with a care worthy the imitation of the moſt poliſhed nations. Seeing the zeal they had for agriculture, I gave them ſome beans, maize, a few grains of allſpice and rice,

* Should not this be *rock* inſtead of earth.

explaining their uſes, and aſſuring them that they would ſucceed in their beſt ſoil.

They cultivate ſhrubs all ranged in order, ſimilar to the banana trees, the bark of which ſhrubs ſerves for their cloaks or counterpanes, they likewiſe make a kind of petticoat of it.

Their conduct during our ſtay, is a proof of the confidence they placed in us; it was not in my power to do the ſame in this reſpect, never going on ſhore without a detachment which inſpired them with terror. Neither did they give us the leaſt cauſe of complaint but in their inclination to ſteal, a paſſion which Indians cannot ſurmount. Every time they came on board, whatever cloaths or iron work fell into their way, they conſidered as a lawful prize. They drew through the port holes or windows whatever they could carry away. They even ſtole the chains from the rudder, of which I complained to the king, who gave me leave to kill any one I might ſurpriſe in the act; and I was aſſured that he had not only diſcovered but put to death the authors of the above mentioned theft. Our vigilance was increaſed, and we ſurpriſed ſome of the iſlanders taking away freſh chains from the helm; we fired a piſtol at them, of whom one fell dead: it was a leſſon for thoſe on board or aſtern of the frigate, who cried out, chito (thief) fama (dead).

I uſed every method to find out if they had any kind of religion, whether they adored any creature or falſe gods; but we obſerved nothing that could even make us ſuſpect it.

We could eaſily pronounce the words of their language, and they as eaſily repeat ours; a ſtay of a few months would have put it in the power of the one and the other to uſe both languages indifferently. If my misfortunes had not totally abſorbed me, I ſhould have collected all the words of their language, which could ſerve for holding converſation with theſe

Indians.

Indians. In the little intercourſe I had with them, I gathered the names of all the parts of the human body, as well as of the numbers as far as ten.

They aſſured me that two frigates had put into their iſlands, the captains of which, with five or ſix officers from each, had ſlept on ſhore, and gave them chaplets of glaſs beads, hatchets *, and adzes.

The 16th of March, when I got ready for ſetting off, they told me that two ſimilar veſſels with mine, were then making ſail to the N. W. and they entered into ſuch a detail that it was impoſſible to doubt the truth of the fact.

The equis, from cuſtom, carry a mother of pearl ſhell, ſuſpended from their neck, and have the two ſmaller fingers of the hands cut off cloſe to the roots.

The Tubou uſed his utmoſt endeavours to induce me to go with the frigate to his ordinary place of reſidence, where I ſhould find vegetables in greater abundance. I ſhould certainly have acquieſced in his deſire from the firſt invitation, had the nature of my commiſſion permitted it; and the rather as I ſhould have found, by his aſſurance, as well as that of all the other Indians, a better ſhelter and aſſiſtance in repairing my rigging.

During my ſhort ſtay in this port, I could not find out what where the functions of the equis, how they were diſtributed, what the nature of the Tubou's authority was, and how far his power extended. In the latter days of my remaining there, in particular, ſuch was my chagrin that I thought of nothing but ſetting ſail. This, indeed, I am ſure of, that but for the unfortunate accident of loſing my cables, which expoſed me to a thouſand dangers, I never ſhould have made a pleaſanter ſtay; ſince beſides a ſufficiency of water and the repair of twenty-five empty unſerviceable caſks, we found for the ſhip's

* We may conclude from thence that the frigates were Spaniſh, as were thoſe of which we are going to ſpeak.

companies more refreſhments even than we ſhould have had in our own ports; ſo that they did not regret the demi-ration I diſcontinued, having been provided for ſeveral days. Some who were ſo afflicted with the ſcurvy as to be given over by the ſurgeon, recovered their health, and in ſhort we had met with a prince, whoſe inclinations were ſo favourable towards us, that he was conſtantly claſping me in his arms, and offering all the proviſions he had.

Departure from Refuge Harbour, in the Iſland of Don Martin de Mayorga, in Lat. 18°. 38′. *S. and* 179°. 52′ *E. from Paris.*

ON the 20th of March, having weathered all the islands, I kept as cloſe to the wind E. N. E. as lay in my power, running ſouth-eaſt on the neareſt points to it. In this track we diſcovered E. S. E. 7°. S. a very elevated island, fifteen or ſixteen leagues diſtant; and at ſun-ſet three other islands, which extended from S. to W. S. W. 50°. W. at a diſtance of five leagues from the moſt eaſterly, which obliged me to tack at 9 P. M. At one o'clock I again re-tacked to the ſouth, to approach theſe islands. We perceived in thoſe nearer to us forty-eight fires.

On the 21ſt, at ſun riſe, we counted ten iſlands on the ſtarboard, and ſix on the larboard ſide. We paſſed between them on the ſouth, through wide channels which they form. We ſaw none of them a-head, until, come to a vaſt gulf, when we diſcovered, at five or ſix leagues diſtance, iſlands out of number, making a very extenſive circumference, in the center of which we were. In traverſing one of the ſtraits formed by theſe iſlands, we had taken ſoundings; the plumb made it five fathoms, but only for an inſtant, the moment after the depth having greatly increaſed.

increaſed. Seeing myſelf ſurrounded by ſo many low iſlands, or ſmall iſlots, between which were left many channels, I attempted to ſail through one of theſe openings, but as we approached we perceived that they were obſtructed by rough ſhelves, which would not let me ſail through the ſouthern part. I reſolved to bear up weſterly, towards the very lofty iſlands we had deſcried in the evening, at a great diſtance, not doubting that I muſt find in its vicinity a free paſſage out of this archipelago.

From the break of day, ſucceſſively arrived many canoes laden with the ſame fruits and proviſions as thoſe of the preceding iſlands. The exchange began, ſhreds of linen being the price of their commodities.

The Tubou of this iſland ſent me two pigs and ſome cocoa nuts, and invited me to come to the iſland, where he reſided. He afterwards came himſelf on board, when he told me he would entertain me with the feat of wreſtling, and that he would collect for my crew a heap of potatoes, as high as our main-maſt. He appeared jealous of the good reception that the Tubou of Mayorga had given us.

I gave him to underſtand that I would comply with his wiſhes as ſoon as I ſhould be to the ſouth of the iſland before us, but they all agreed in informing me that the paſſages were ſhut by ſhoals and reefs, and that on the contrary I ſhould find ſufficient depth by taking the courſe of the Tubou's Iſland and the high one that I was already ſteering for. Although I was aſſured by all that this great equi was ſovereign of forty-eight iſlands, which they named to me in the moſt minute detail; I did not perceive that they had the ſame affection and reſpect for him as thoſe of Refuge Iſlands had. Immediately, on his coming on board, he put his beads of mother-of-pearl round my neck, as a token of cloſe friendſhip; and after having paſſed five or ſix hours, returned to one of

the iſlands, in the expectation that I ſhould join him to-morrow.

I ran cloſe along many ſhelves, and at ſun-ſet found myſelf to the eaſt of St. Chriſtopher* Islands, at ſix leagues diſtance, clear of the little flat islands: but as the wind freſhened from the eaſt, I remained all night under very little ſail, that I might not expoſe myſelf to run upon any unobſerved islot.

I gave this group of islands the name of Don Joſeph de Galvez. The ſouthern cape of the Tubou's Island is in lat. 19°. 39′. and long. 179°. 38′. W. of Paris.

At day-break of the 22d I ran under a preſs of ſail as near ſouth on the next point, as poſſible; and in following this tract we ſaw two islands before us, which I called the Adders, beyond which was perceived a great ridge, the breakers whereof were ſeen very far; it was five leagues from us.

The prevalent winds from the eaſt and north eaſt, drove us forward, by which we continued our navigation more eaſy in mind, finding ourſelves delivered from the dangers whereto we had been expoſed, as well by the islands as reefs. We ſaw nothing more till the 24th, when we diſcovered in the third quarter (between S. and W.) at ſeven leagues diſtance, a ſmall island, which I named The Solitary. On the 27th we ſaw another W. S. W. 3° W. ten leagues diſtant, to which I gave the name of Vaſquez.

From the night of the 27th to the 28th, the wind became outrageous, and the ſea ran very high. At midnight I was obliged to lay to, till day-break, when the weather became mild, and I ſtood towards the weſt, with a light north-eaſterly wind.

On the 29th, finding myſelf S. lat. 25°. 52′, and

* What is this iſland of St. Chriſtopher? Can it be the lofty iſland which was mentioned, and to which that name was given? It ſhould have been explicit on this head.

reckon-

reckoning myſelf 179° 17′ eaſt from Paris, the wind veered to the weſt, of which I took the advantage to make ſail to the S. E. a quarter E. wiſhing to bring myſelf more to the S. and at the ſame time gain ſome longitude towards the eaſt. This route I purſued to the 3d of April, on which day, in 30° lat. and 174° 22′ long. W. from Paris, the wind fell almoſt into an abſolute calm.

In ſuch circumſtances, and on account of the continual complaints that the ſhip bread was not eatable, I thought it adviſeable to look into it myſelf. When I ſaw the actual ſtate in which it was, I could not but regard my ſituation as the moſt dreadful, to which thoſe who navigate unknown ſeas, without hope of any relief, can be reduced. Never ſhall I call to mind that ſorrowful moment, without the recollection of the ſpectacle which then came to my view, piercing and rending my very heart. I can with truth affirm, that if God had not ſuſtained me in that deplorable moment, I ſhould have fallen in the utmoſt deſpair, ſeeing no appearance of being able to continue our way.

I ordered the firſt pilot, *Don Joſeph Vaſquez*, the ſecond, *Don John d'Echeverria*, and all the ſea officers to attend, and made the ſurgeon, *Don Pedro Carvajal*, reporter of the counſel which we were going to hold, and of the deliberations which ſhould be there taken. I conducted them, one after another, to the bread-room, when we found millions of cockroaches; to convey an idea of the number of theſe inſects, they muſt nave been ſeen by the eye. This plague had ſo infeſted our frigate, that the holy Father was obliged to exorciſe them more than once. For my own part, I took care to diſtribute in the cabins, bread-rooms, and throughout all the ſhip, veſſels* rubbed over the inſide with honey mixed with

* In the text it is wrote ſpitting pots.

ſugar;

ſugar ; each day brought me a large pail full of thoſe inſects. I thus conſumed almoſt my whole ſtock of honey, while their number did not perceptibly diminiſh.

The bread, at firſt opening the room, appeared untouched, but near the partitions the biſcuit had entirely diſappeared, and the floor preſented to view nothing but a heap of bran and duſt. From the diminution of the allowance, which order I iſſued on the 16th of February, and from the drawback of one ounce in each pound, which took place from the time we left Siſiran, there ſhould remain 8225lb. of bread, (16 oz. to the lb.) without reckoning the other proviſions, which were in tolerable abundance : but on that day I ſaw myſelf reduced to two great boxes of duſt rather than bread*. I had the three caſks of reſerve opened, which were well bound with iron hoops, properly coated with pitch. There was no appearance of their having contained any bread, they were full of cockroaches alone.

I finally took the precaution of picking out as much bread as poſſible, and incloſing it in the flag and arm cheſts. On weighing it I found it to be 1000lb. weight. (16 oz.) In the ſecond place I collected all the potatoes that remained among the crew, but the proviſion having been given out a fortnight before, hardly two baſkets full could be obtained. Thirdly, I had all the pigs and other animals killed, except ſome fowls which were kept for the ſick, for whom I alſo preſerved the little honey remaing from the ſtock I took in at Siſiran. The fourth precaution I thought neceſſary to take, was inſtantly to ſuſpend even the allowance of bread, and to diſtribute per head to the ſhip's company a ſmall ration of potatoes, from the proviſion which I made of them with the Indians, three ounces of pork and one of rice. In all this my only aim was to preſerve life until I

* I again abridge here.

might

might be in a ſituation to grant them more abundant ſupport. In ſhort I reſolved to divide with them my proviſions, reſerving as a laſt reſource, the two cheſts, which I looked upon as ſacred.

After all theſe reſolutions, I took counſel with the officers already pointed out. I repreſented to them my proceedings ſince the firſt of January, what bread ought to have remained, and what did actually remain. I told them that I the more willingly laid before them the precautions I propoſed taking, as they had themſelves ſuffered from the retrenchments I thought it my duty to make, retrenchments which had cauſed me to be treated like a tyrant, as having a bad heart, and as a man who had laid aſide every ſentiment of humanity: that we were actually 1760 leagues from Peru, 1240 from Guaham in the Marianne iſlands: that the winds were favourable for either the one or the other of theſe tracks, ſave ſome calms or croſſes which muſt always be expected in ſuch voyages; that they had themſelves ſeen the ſtate of our victuals; that, in ſhort, I entreated them to tell me how they would conduct themſelves if they had the command of the ſhip in ſuch circumſtances. All unanimouſly anſwered, that death alone could be worſe than our preſent ſtate; that of the two routes propoſed, although either of them gave but very little hope of ſafety, they could not diſpenſe with chooſing that of the Mariannes, and trying whether they could not get ſome aſſiſtance at the iſlands of Mayorga, not having a month's proviſions. In the end the firſt and ſecond pilot ſupported all their repreſentations; and myſelf, convinced that their advice would be beſt, beſides, being unwilling to be at all acceſſary to the loſs of ſo many unhappy men, or be obſtinate againſt what ſeemed to me moſt to the King's intereſt, I gave orders for ſteering to the north, with the intention of getting forty leagues to the eaſtward of theſe iſlands, where I had already found, and hoped

ed again to find refreſhments. This reſolution, however, I did not take without a pain ſtill more acute than that which I had felt on inſpecting our proviſion: I would rather have choſen death than to run again to the north; and had I not given way to reaſon, I ſhould have taken the mad reſolution of purſuing our navigation eaſtward. The calmneſs of my mind entirely forſook me; I was far from experiencing that tranquillity wherewith I have borne up againſt an infinity of croſſes in the dangerous voyages for diſcoveries * I had undertaken. The reflection that we had no other choice left was not ſufficient for my tranquillization, eſpecially when I reflected that this ſtate of diſtreſs manifeſted itſelf preciſely at the time when we ſurmounted the difficulties of our navigation, when we had reached a latitude where we could not but expect favourable winds, and with which I thought we might terminate our voyage. It is nevertheleſs certain, that if this whim of myſelf ſeeing into the ſtate of our proviſions had been a fortnight later, our greateſt happineſs would have been to ſtay in ſome deſart iſland, if we had had the good fortune to fall in with any. And even in the ſituation wherein we found ourſelves, if the refreſhments furniſhed us by the Indians had not been ſo plentiful, I could then have taken no other part, than to look out for ſome land whereto we could fly for refuge. It was then truly by an act of Providence that we fell in with the iſlands of Mayorga, whence we had drawn ſuch eſſential aſſiſtance. With variable winds which blew from all points of the horizon, I from the 4th of April followed a northerly courſe, or that which approached it neareſt in the firſt quarter (between N. and E.). On the 9th a breeze from S. E. to N. E. began to prevail, which I availed myſelf of to get forty leagues eaſt

* What ſervice would not this navigator be of to geography, would he communicate his diſcoveries to the public?

of

of theſe iſlands, that I might afterwards find them with leſs difficulty by following their parallel.

The wind on the 16th abated, but on the 18th it increaſed, and was accompanied by overcaſt weather and rain in abundance; we laid to all night. At day break we ran for theſe iſlands, but the current carried us ſome minutes to the north: the bad weather afforded us no opportunity for taking an obſervation, beſides which, theſe iſlands being very low, we did not perceive them. We ſaw to the N. W. the iſland which lies S. W. 7° S. of that of Latté, upon coming near to which we recognized Latté at the diſtance of ſix leagues, the reſult of which was, that my reckoning was thirty miles aſtern of the frigate, and that we had conſequently paſſed between the two groupes of the iſlands of Galvez and Mayorga, at a ſhort diſtance from both, which continual fogs and a cloudy horizon had prevented our ſeeing.

As the only hope whereby the courage of my ſailors was ſuſtained, was being able to gain the iſland of Mayorga, I hauled my wind as cloſe as poſſible, and reefed the topſails; but the ſea running high, the wind ſtrong, and the night dark, obliged me to give up the idea of landing on theſe iſlands, convinced that I could not approach them (which was at any rate very doubtful) without loſing many days. My complement was diſcouraged by the ſight of its wretched ſtate, the weakneſs of which was ſuch, that to hoiſt a topſail, the men of both decks were frequently obliged to put all hands to the work. The moſt rigorous hoſpital diet could not have enfeebled them more. To cheer up their ſpirits, I made them conſider, that in our preſent track, we muſt infallibly fall in with other iſlands, where they might recruit their ſtrength. That the winds were favourable, and that we every day advanced in full ſail towards the end of our ſufferings. Tranquillized by this reaſoning, they became calm under their afflictions.

On

On the 21ſt we diſcovered at N. N. E. and E. N. E. two iſlands, which I named Conſolation, becauſe my crew there found ſome relief, having obtained potatoes, pigs, bananas, cocoa nuts, and fowls, which the iſlanders brought during the thirty hours I laid off the coaſt. Had the weather not been ſo rough, the refreſhments would have been more plentiful; however, the ſhip's company, by their barter, in which their apparel was not ſpared, and at the riſk of being left abſolutely naked, made proviſions for more than a week, whereby the ſailors recovered their ſtrength, and were better enabled to ſupport the laſt misfortune which awaited them.

As, at our approach to the iſland, we ſaw a very great number of canoes, laden with proviſions, coming to meet us, I ſuſpended the ſcanty allowance which I furniſhed from my own ſtore. It is eaſy to conceive my object in this parſimony.

The Indians of theſe iſlands ſpeak the ſame language as thoſe of Refuge Iſland, and their character of mind is the ſame. Such was the confidence they repoſed in us, that nineteen of them ſlept on board, whether we would or not, and the next day we were obliged to rid ourſelves of them by force.

They were deſirous for me to land in their iſland, when they would exchange a great many large hogs with us, the ſmall ſize of their canoes only permitting them to bring leſſer ones; but time being precious I contented myſelf with ſeeing that no one neglected himſelf, and that every proviſion was made that circumſtances would admit of.

The 22nd at night I ſtood to the N. N. W. with a light wind from the north*, and in this track diſ-

* There is ſome miſtake here. I cannot think that the Spaniards could, with a northerly wind, have ſteered N. N. W. It muſt certainly be read either *a north eaſterly wind*, or *a courſe to the W. N. W.*

covered

covered on the 24th another iſland, which I named Maurelle. The wind became calm, except ſome ſqualls and tranſient puffs from the north eaſt, that prevented my ſtanding for the iſland before ſun ſet. A ſouth eaſterly wind then ſpringing up, I approached it within three leagues, but night coming on, and the diſtance being too great for the litttle canoes of the Indians, made two of them, coming under ſail, and, no doubt, laden with refreſhments, return.

The winds continued to blow from the firſt and ſecond quarter (from N. to E. and E. to S.) ſometimes freſh, and then ſo faint that they fell into a calm. I took advantage of every favourable moment, and found myſelf, on the 3d of May, in 6° lat. In this poſition we found a very low iſland, ſurrounded with a ſandy ſhore, terminating in one impenetrable reef, near which I could reach no bottom with a line of upwards of 50 fathoms. The iſland was covered with a thick plantation of cocoa-nut trees*. This ſight was the more agreeable to the ſhip's company, as the proviſions obtained at Conſolation Iſland were exhauſted that very day.

I ſent the long-boat, armed, to try to bring us a good ſupply of cocoa-nuts; this the breakers of the reef prevented. The frigate, however, got ſo near the coaſt, that the natives ſpoke to us from the beach, but we could deviſe no means of getting nearer. However the Indians put their canoes to ſea with extreme difficulty, the reef being a great impediment. They reached us in great numbers, though the hazard of the navigation had prevented them from bringing but very few nuts. They endeavoured to tow the frigate, by faſtening ſeveral lines to her

* It will be preſently ſeen that this iſland was called *Iſland of Cocal.* Cocal ſignifies a plantation of *cocoa palms*, (cocotaie) but I did not dare to riſk that term.

prow

prow, and paddling all at once towards the iſland, from whence they flung ropes to haul us in. Six hours having paſſed without their being able to effect it, and ſeeing no proſpect of ultimate ſucceſs, I made ſail towards the N. W.

The inhabitants of this iſlet already began to vary much in their pronunciation of ſeveral words, common to the other iſlands. They were ſo ſmeared over with paint, that one might have taken them for images of demons. They, for the moſt part, had long beards, hanging down upon their breaſts. Near the cocoa-nut plantation there were ſo many huts, placed in ſuch excellent order, that the population of the iſland might be concluded to be conſiderable.

On the 6th I was under the neceſſity of reducing the allowance of bread to five ounces, pork two, and beans two, which I drew from my own private ſtock, there being no more in the king's ſtores; and although I thought it impoſſible for any crew to ſupport nature with ten ounces of bad victuals, the dreadful ſtate of our proviſions did not permit me to give out more.

The ſame day, in the evening, we ſaw another iſland lower, but much larger than the preceding one. I named it St. Auguſtin, and left it ſix leagues to the S. W.

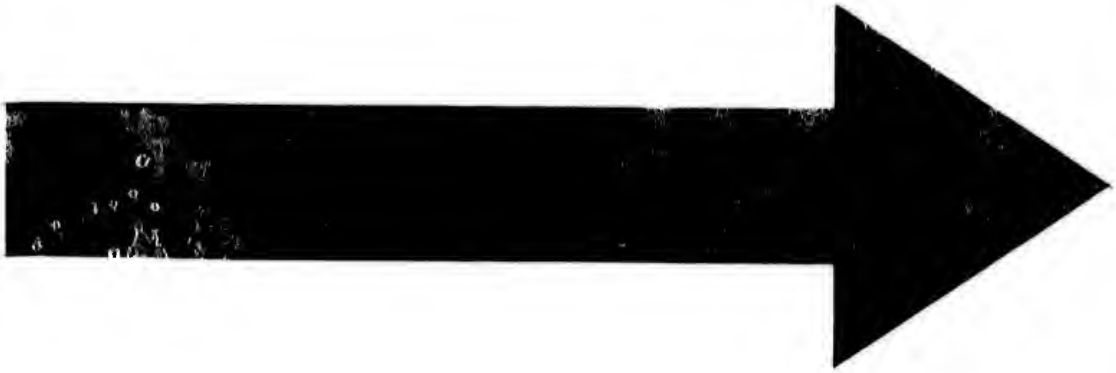
We had, in recroſſing the line on the 13th, ſqualls from every point of the compaſs. All the remarks I had made on the ſtate of the horizon, ſince leaving Cocal Iſlands, convinced me that we had left many lands to the eaſt, which no doubt compoſe, with Solomon's Iſlands, a ſtring more or leſs open to the ſouth of the equinoctial line.

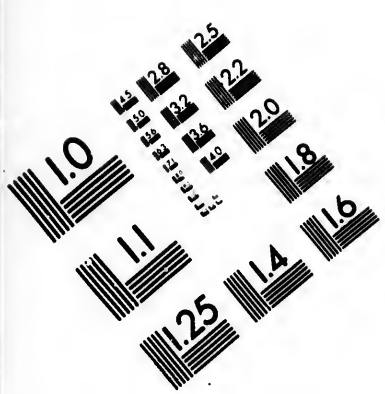
During the ſhort time that the allowance of bread remained at ſix ounces, there was not a ſingle man among the crew but complained of a weakneſs in the

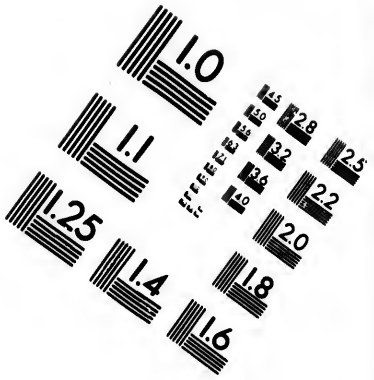
the ſtomach. The whole of them were ſo feeble that all hands together could not hoiſt the ſails without great difficulty, which forced us frequently to diſpenſe with manœuvres that would have been of great utility.

On the 22nd I calculated that I was upon the ſhoals of St. Bartholomew. Prudence would have undoubtedly required me ſometimes to lay to during the night, particularly as the wind was not only pretty freſh but even violent; but I was too much affected with the lamentable ſtate of my crew, the majority of whom were attacked by the ſcurvy, owing to the bad quality of the bread. I crowded ſail, and the extreme vigilance I recommended to every individual of the ſhip's company, ſupplied the place of thoſe precautions which, under any other circumſtances, I ſhould have taken.

Our latitude on the 24th, was 13° 16′ N. and all danger over; I therefore ſteered W. by N. W. for Guam, the capital of the Marianas, where I came to anchor on the 31ſt, in Umata road, and ſoon received the neceſſary aſſiſtance for properly victualling my ſhip's company. As I had only one anchor, too little to truſt to in the road, I ſent an expreſs to Don Phillip Zérain, governor of the iſland, whom I made acquainted with the actual ſtate of my veſſel, and the object of my commiſſion, deſiring him to put me in a ſtate for ſetting ſail as ſoon as poſſible; declaring that however bad the condition of my ſails and rigging, I was nevertheleſs reſolved to make the beſt of my way for New Spain, to place in the hands of his excellency the viceroy of Mexico, the important diſpatches with which I was charged. I added, that I hoped he would facilitate my being furniſhed with proviſions, of thoſe articles of food indiſpenſable for ſo long a navigation. That I did not demand the proviſions with which it is cuſtomary to furniſh king's ſhips, they would not







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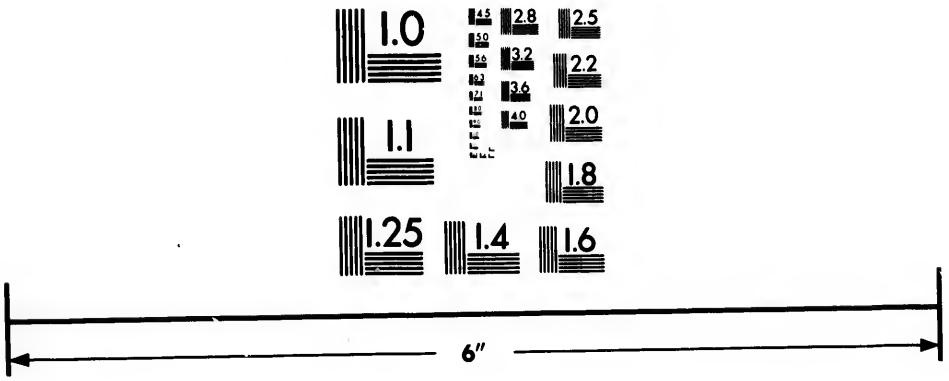

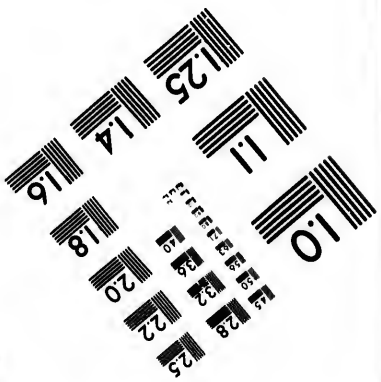

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have been found in this preſidio, but ſuch as could be got together in the iſland, provided that their quantity might make them equivalent to the ordinary proviſions.

The governor took upon himſelf to judge of every thing neceſſary for the ſucceſs of my commiſſion. Conceiving the conſequence of not being driven by the wind out of the roadſtead while my crew were bereſt of food, he ſent fifteen days' proviſions in rice, maize, and hogs, on board, without diſcontinuing the daily refreſhments we were furniſhed with for the re-eſtabliſhment of the health of thoſe afflicted with the ſcurvy, and preparing my crew for a new voyage. He likewiſe ordered to be brought from a preſidio, ten leagues from Umata, a very old anchor, wanting it is true a quarter of the ſtock, but I repaired it ſo as to make it fit for ſervice, and by the help of another wooden anchor, which I conſtructed with my carpenter's aſſiſtance, we were, at the end of eight days, riding at three anchors, though not to the entire ſatisfaction of the crew.

Nothing now remained for us but to procure water, to aſſure our ſubſiſtence whether at anchor or under ſail. Since my arrival I had ſucceſſively put on ſhore all my empty water caſks. It was not long ſince they had been filled at the iſlands of Mayorga. What then muſt be our aſtoniſhment, when we found only two pipes of water left, one of which wanted a whole barrel of being full! I requeſted the governor, his major, and all my crew to be witneſſes with their own eyes of this enormous waſte. All returned God thanks for his having ſaved us from the imminent danger with which we were threatened.

As all the ſtaves and heads of the barrels were eaten throughout, we were obliged to repair them anew; but after this labour, the pipes which before held ſix barrels, now contained only four; beſides we could only make up 48 pipes from theſe wrecks. The gover-

governor ſeeing the inſufficiency of this ſupply, ſent on board 30 *cannes*, each holding eight *quartillos* *. This ſuccour was certainly unequal to the ravage we had reaſon to fear from our deſtructive inſects. I however took courage, hoping that in the abundance of our proviſions they would eaſily ſatiate themſelves.

The eatables I procured, without coſt to the royal treaſure, were 140 anègues † of maize, 60 of rice, 30 pigs, 20 young bulls, (perhaps oxen) 45..... ‡ of dried meat, ſalt, butter, lamp-oil, brandy made of cocoa nuts for the crew, 60 cocoa nuts for the hogs, and all the other articles of importance neceſſary for a ſhip. Under more favourable circumſtances we ſhould not have been ſatisfied with ſuch proviſions. I now got every thing in readineſs for ſetting ſail on the 20th June 1781, for new Spain, to complete the fulfilment of a commiſſion, the reſult of which might be highly beneficial to the welfare of the State.

Departure from the Road of Umata, in the Iſland of Guam, the Capital of the Marianas, ſituated in 30° 10′ *N. Lat.* 21° 28′ *Long. of Manilla.*

I GOT under way the 20th June, and once more experienced the great weakneſs of my cables, par-

* This is probably a miſtake. According to *Paucton's Treatiſe on Weights and Meaſures*, &c. the thirty cannes, of eight quartillos each, would only have held 125 Paris pints, and above one half leſs, or only ſixty pints, by Sejournant's Dictionary. This aſſiſtance would have been very trifling. It muſt apparently be read 800 or 8000 quartillos.

† The Anegue, or rather Fanègue, contains very near four buſhels and a half, Paris meaſure.

‡ This abreviation probably means Anègues. The author has, however, elſewhere uſed it for *Arrobes*. The arrobe, for ſubſtances, is a weight of twenty-five pounds, forty-five arrobes would only make, therefore, 1125 pounds, which would not be a very great ſtock.

ticularly of that attached to the anchor which the Governor had procured. The anchor was ſcarcely got out of the water before the cable broke, and the ſhip in caſting having greatly increaſed the depth of water, it ſunk beyond the reach of the cable.

The ſeaſon permitted us to take a northerly courſe, the winds from E. and E. N. E. carried me to lat. 20° 10′. We were afterwards becalmed for ſeven whole days, during which time we only moved with the currents, whereby we were drifted to the N. W.

On the 3d July, in 24° 26′ lat., the wind of the fourth quarter (between W. and N.) began to blow now with great violence, and then more faintly; it carried me on the 7th to 25° 9′ lat., and I then ſuppoſed I might be off the Great-Volcano Iſland. This route we continued to the 11th, when finding myſelf in 27° 52′ of lat., I judged that I might be 25 leagues to the eaſt of the iſland of Bad-Shelter, and that I had cleared all the ſtring of the Marian Iſlands. The wind then veered to the third quarter, (between S. and W.) and I ſtood to the N. E., always endeavouring to get a higher latitude, for the purpoſe of falling in with a freſh weſterly wind. Arrived at 40° lat., I ſteered E. by N. E. as far as the winds would permit, but finding that I was in lat. 43°, long. 179° 28′ E. from Paris, the wind ſhifted to the ſecond quarter (between E. and S.) and it became ſo violent as to oblige me to lie by two days.

The 5th Auguſt the wind blew from the N. W., I ſteered E. by S. E. till the 13th. In this interval the wind came from every point of the compaſs, fixing at laſt in the ſecond and firſt quarter. I availed myſelf to the utmoſt of theſe variations to proceed eaſtward.

On the 30th I was in N. lat. 37° 5′, and I reckoned my longitude 144° 17′ W. of Paris, and 260 leagues from Cape Mendocino. The wind being then in the fourth quarter, I ſtood eaſtward until the

3d

3d September, when we saw sea-weed, and trunks of fir-trees floating on the water, the first sign of the proximity of the northern coast of California. To get nearer it I bore up E. S. E.

The sea on the 4th changed colour, and the sight of some small birds was a confirmation of our not being far from a land which we should not be long before we came in sight of.

On the 8th I was off Point Pedernales or Gun-Flints, at the distance of five leagues. These bearings placed me in 123° 3′ long. W. of Paris. By reckoning I was in 130° 34′, so that my calculation was 122 leagues wrong, by which I made myself too much to the west.

On getting sight of this Point I made for Cape St. Lucas. In the way I passed to the east of the Island of Guadaloupe at the distance of eight leagues. The weather was calm for some days, after which on the 20th, I came in sight of Morne St. Lazarus, and was on the 22d, near Cape St. Lucas.

On the 25th after some calms, during which I was almost always within sight of the land of this Cape, a terrible hurricane arose, that in the space of six hours went round from the east to the north, west and south, with such violence, that notwithstanding the impetuosity of the sea, which was against us, we ran seven miles and a half an hour under the fore-sail only. Doubtless we should have been dismasted, had the tempest continued much longer.

The same day, when the hurricane had subsided, I set every sail and stood for the Maria Islands, which I doubled to the north on the 26th and 27th at night, and anchored in the roadstead of St. Blas, in lat. 21° 30′ long. 107° 6′ W. of Paris. I was so fortunate as to bring home my crew safe and sound, notwithstanding the horrible havoc made by the cockroaches in our provisions, and the misery which

was the reſult of it, with the loſs of only two men, one of whom died in the Port of Siſiran before our departure, and the other was attacked by a phthiſis when he embarked *.

F. A. MAURELLE.

St. Blas, 27th September, 1781, on board the La Princeſſa Frigate.

Extract from the Narrative of a Voyage made in 1779, *by Don Francis Anthony Maurelle, Enſeigne de Frégate, in the Service of the King of Spain, for the Diſcovery of the Weſt Coaſt of North America.*

THE Spaniards have within a few years undertaken three voyages for examining the weſt coaſt of North America. In the firſt, Don John Perez, firſt pilot, got as high as 55° lat., and on his return twice reconnoitred the coaſt between this point and the port of Monterey.

For the ſecond voyage, undertaken in 1775, a frigate and ſchooner were fitted out. The command of the ſchooner was given to Don John Francis de la Bodega y Quadra, lieutenant de vaiſſeau. Don Maurelle, who accompanied Don de la Bodega, and was then but a ſecond Pilot, had given a ſketch of this expedition, a copy of which fell into the hands of the Engliſh. Sir Daines Barrington publiſhed an Engliſh tranſlation of it in England, and Captain Cook mentions it in the account of his third voyage. But Captain Dixon, in the narrative of his voyage in

* I have not added any remark to the account of this voyage which Maurelle has termed intereſting; but as in hydrography, the leaſt exact journals may be ſerviceable in ſome degree, notwithſtanding the ſomewhat ſevere judgment of La Pérouſe upon it, in the extract from his correſpondence in the ſecond volume, I thought it might be of uſe to ſome navigators, or throw light on ſome geographical diſcuſſions.—*French Editor*.

theſe

theſe ſeas, accuſes Don Maurelle of manifeſt falſehood; according to him it is an indiſputable fact, that this officer has never been in the ſeas where he boaſts of having made fruitleſs reſearches. The accuſation is ſtrong, and if well founded, Don Maurelle is entitled to no confidence what ver. "We "endeavoured," ſays this navigator, "to find out the "ſtraits of Admiral Fuentes, though we had not hither- "to diſcovered the archipelago of St. Lazarus through "which we ſailed. After all theſe unavailing re- "ſearches, we can pronounce this ſtrait not to be in "exiſtence." There, ſays Captain Dixon, ſpeaking of Queen Charlotte's Iſlands: "the ſituation of theſe "iſlands, viz. from 54° 20′ to 51° 56′ N. lat., and "from 130° to 133° 30′ W. long. evidently ſhews, "that they are the archipelago of St. Lazarus." But is it fully proved, that what Captain Dixon calls *Queen Charlotte's Iſlands*, is really a groupe of ſeveral iſlands? "There is every reaſon to believe it, by con- "ſidering the number of ſmall ſtraits which have "been ſeen in ranging along the coaſt." But may not theſe ſmall ſtraits be nothing but creeks, none of them having yet been penetrated? Captain Dixon had other affairs to attend to; his object was not to make diſcoveries, but to purchaſe fine furs cheap, and ſell them dear at China. Neither is he the author of the narrative. It is, he ſays in the introduction, by a perſon as little verſed in a literary career as accuſtomed to a maritime life. But Captain Dixon tells us in the introduction, that he has carefully corrected what relates to navigation. The whole is, undoubtedly, very well corrected; but to ſupport the erroneous opinion which people appear to be in as to the reality of Admiral Fuentes' diſcoveries, it were unneceſſary to tax with impoſition a navigator whoſe ſole object was to make diſcoveries.

Maurelle's diſcoveries, in this ſecond expedition, extended to the 58th degree of latitude. Don Maurelle has particularized them on a chart, which may

probably not have fallen into the hands of the Engliſh: the Spaniards will perhaps publiſh it, and the diſcoveries of Maurelle may then be combined with thoſe of Cook and Dixon. Don de la Bodega, and Don Maurelle, diſcovered, among other places, in 55° 18′ lat., the entrance of an harbour, which they ſuppoſed to be a good one, and named it the *Entrance of Bucarelli*, in honour of friar Don Anthony Maria Bucarelli y Urſua, Viceroy of Mexico, who ſpared nothing, as far as depended upon him, to facilitate the ſucceſs of theſe expeditions. He diſcovered alſo two very good harbours; that of Guadelupa in 57° 11′, and Los Remedios in 57° 18′. Cook, in his third voyage, ſaw theſe harbours, but did not put in there.

A third expedition was, in 1777, ordered by the King of Spain, whereby he intended to complete the exploration of the N. W. coaſt of America, from 58° to 70°. Don Bucarelli equipped two frigates; the la Princeſſa commanded by Don Ignace Arteaga, lieutenant de vaiſſeau; the Favourite, by Don de la Bodega, who took Maurelle, then enſeigne de frégate, as his ſecond captain. Their firſt place of rendezvous was agreed to be at the entrance of Bucarelli, where they were to take in wood, water, &c.

On the 11th February, 1779, they left the harbour of St. Blas, which they place in lat. 21° 30′ N., and long. 107° 6′ W. of Paris. They arrived the 3d May at the entrance of Bucarelli, the geographical ſituation of which is, by this account, in lat. 55° 18′ N., and long. 139° 15′ W. of Paris. There does not appear to be ground for calling in queſtion the accuracy of the latitudes determined by Don Maurelle; the ſame cannot be ſaid of the longitudes, which were probably only determined by account. According to an obſervation taken by Cook the preceding year, of the coaſts near the entrance of Bucarelli, that entrance muſt be very nearly 227° E of Greenwich, or 135$\frac{1}{2}$° W. of Paris.

The entrance of Bucarelli introduced the Spaniards into

into a vaſt gulph, where they anchored the 3d May in a port, as they ſay, inferior to none in Europe. They named it Port of the Croſs (La Cruz.)

Don Maurelle was diſpatched on the 18th of May with the two long boats to ſurvey the gulph all round. In this expedition, which laſted till the 12th of June, he took the bearings of all the capes, iſlands, and principal parts of the great gulph, and delineated all the creeks, bays, and particular ports. All theſe bays and harbours are, ſays he, good and ſecure. He named them all, and afterwards conſtructed a large and very exact plan of the whole of the great gulph. It is much to be wiſhed that this plan were made public, as well as the chart which he compoſed of the coaſts and iſlands diſcoverd by the Spaniards in the courſe of their expedition. The chart would not, however, be ſo eſſential as the plan, the ſame coaſt having been viſited the year preceding by Cook, though ſome particulars might be found upon it which had eſcaped the Engliſh argonaut. Don Maurelle met with but few habitations in his expedition, ſeeing only one village, ſituate at the top of a ſteep mountain, which could only be aſcended by a flight of ſteps, or rather wooden ladder, whence if the foot ſlipped, one muſt fall down the precipice.

The Spaniards were not long in the port of the Croſs (La Cruz) without being viſited by the Indians in its vicinity. Traffic commenced, the Indians giving them furs, and various trifles, for glaſs beads, pieces of old iron, &c. From this barter, the Spaniards were enabled to form a pretty good idea of their genius, offenſive and defenſive weapons, manufactures, &c.

They are of a clear olive colour, many of them having notwithſtanding a perfectly white ſkin. Their countenance is well proportioned in all its parts. They are robuſt, courageous, arrogant, and warlike. They cloath themſelves, apparently with the fur of

one

one or more undreſſed ſkins of otters, ſea wolves, benades, (a ſpecies of deer) bears, or other animals which they take in the chace. Theſe dreſſes cover them from the neck to the middle of the leg. Several of them wear boots of ſmooth ſkin, not unlike the Engliſh boots, except that thoſe of the Indians open before, and are laced up with a ſtring. Their hats are woven from fine bark of trees, the form of which is like a funnel or cone. At the wriſts they have bracelets of copper, iron, or for want of theſe metals, fins of whale; and round the neck, necklaces of ſmall fragments of the bone of fiſh, or other animals, or even copper necklaces as thick as two fingers. Their ear-rings are of mother of pearl, or plates of copper, on which is emboſſed a topaz-coloured roſin, accompanied with jet beads. Their hair is long and thick. They uſe a comb very like ours to hold it together in a ſmall queue from the middle to its extremity; a narrow ribbon of coarſe linen woven on purpoſe, ſerves as a ligament.

They wear alſo as a covering a kind of ſcarf*, about a vare † and a half long, and a vare wide, woven like the *peillons* ‡ of Peru, with a fringe half a quarter of a vare wide, the thread of which is regularly twiſted.

The dreſs of the women is a proof of the modeſty and decency of their manners. Their phyſiognomy is agreeable, their colour freſh, their cheeks of a lively red, and their hair long, which they plait into our treſs. They wear a long robe of ſmooth ſkin tied

* In the Spaniſh it is algunas preſadas I do not know whether preſada ſignifies any thing but a green colour. Preſadas is perhaps written for fraſadas, a covering. P. for F, and ſ for z, frequently occur in the manuſcript.

† The Spaniſh vare is about three French feet in length.

‡ The Spaniſh peillon is a ſpecies of ancient robe, which is yet in uſe at Peru. I have not been able to find out of what texture it was.

about

about the loins, ſomething ſimilar to that of a nun; it covers them from the neck to the feet: the ſleeves reach down to the wriſts. On this gown they put many ſkins of otters, or other animals, to defend them from the inclemency of the weather. Many of them, if better dreſſed, might diſpute the prize of beauty with the fineſt Spaniſh women; but not content with the charms beſtowed upon them by nature, they have recourſe to art, not to embelliſh but diſfigure themſelves. All the married women have a large aperture in the lower lip, which is filled up by a piece of wood of an oval form, the ſmalleſt diameter of which is nearly an inch; the older a woman is the greater is the extent of this beautiful ornament. It renders them frightful, particularly the old women, whoſe lip, deprived of its natural ſituation, and drawn down by the weight of this admirable jewel, neceſſarily hangs in a very diſagreeable manner. The girls only wear a copper needle, which croſſes the lip, where the ornament is intended afterwards to be placed.

Theſe Indians uſe, in war, cuiraſſes and ſhoulder pieces, not unlike, in workmanſhip, the whalebone ſtays of Europeans. Narrow boards form, in ſome meaſure, the woof of this texture, and threads are the warp; by theſe means the whole is very flexible, and leaves the arm a free motion for wielding the weapons. They wear round the neck a large coarſe gorget, which covers them up to the eyes, and their head is protected by a helmet, ordinarily made of the head of ſome wild beaſt. From the waiſt to the feet they have a kind of apron of the ſame texture as their cuiraſs. Laſtly, a fine ſkin* hangs from the ſhoulder to the knee. With theſe arms

* In the Spaniſh it is written *quera*, which I do not believe to be a Spaniſh word. I ſuppoſed that it ſhould be made *cuera*, the name of a ſpecies of ſkin garment.

they

they are invulnerable to their enemies; but they cannot move with equal agility as if they were leſs encumbered. Arrows are their offenſive weapons. Bows, the ſtrings of which are woven, like the large ſtring of our beſt muſical inſtruments; lances four vares in length, headed with iron; knives of the ſame metal, longer than European bayonets, a weapon which, however, is not common among them; ſmall hatchets of ſilex, or green ſtone, ſo hard as to cleave the cloſeſt wood, without turning its edge.

The pronunciation of their language is extremely difficult, ſpeaking from the throat with a motion of the tongue againſt the palate. The little uſe the women can make of their lower lip is a great impediment to the plainneſs of the language. The Spaniards could neither pronounce nor write the words they heard.

Theſe Indians, from their vivacity and attention to keep the market, eſtabliſhed at the port, well ſupplied, it may be concluded, are tolerably laborious. They continually brought ſtuffs, well woven, and ſhaded with different colours; ſkins of ſea and land wolves; otters, bears, and other ſmaller animals. Of theſe ſkins ſome were raw, others dreſſed. At this market we alſo found coverlets * of common cloth, intermixed with brown and black colours, very well woven, but in ſmall quantities. Large ribbons of the ſame, which might be compared to that of the Spaniſh officers' mattreſſes. Skeins of thread, of which this cloth was made; wooden trenchers, prettily worked; little boats, or canoes, painted of ſeveral colours, the figures of which repreſented heads with all their parts; perfect imitations, in wood, of frogs, which opened like ſnuff boxes, and ſerved for them to keep their trinkets in; boxes, made of ſmall planks, of a

* *Treſadas* again occurs here. I ſuppoſed *frazadas*, bed coverlets, were meant.

cubical

cubical form, three quarters of a vare on each ſide, with figures of different animals, well ſketched, on the outſide, the covers made like the etwees of Flanders, having indented edges, ſo as to ſhut into the body of the box; animals of wood, both terreſtrial and aërial; figures of men, of the ſame materials, headed with helmets, to repreſent the heads of different beaſts; ſnares and nets for fiſhing; copper necklaces and iron bracelets, which they would not part with, but at a very high price; and beaks, from whence they drew a ſound like that of a German flute. The principal officers picked out from this merchandiſe what they liked beſt, leaving the reſt to the diſpoſal of the ſhip's company.

The Indians perceiving that the Spaniards were very dainty in fiſh, did not let them want for choice. Thoſe of which there was the greateſt abundance was ſalmon, and a kind of ſole or turbot, three vares and a quarter long, and proportionably broad and thick; alſo cod, pilchard, and fiſh reſembling trout. Hence it may be inferred, that this gulph muſt be well filled with fiſh. The banks likewiſe are lined with ſhells. The quantity of mother-of-pearl that theſe Indians cut up to make ear-rings with, awakened the curioſity of the Spaniards, who endeavoured to find out whether theſe people had not in their poſſeſſion, or the country did not produce pearls or precious ſtones. Their reſearches were fruitleſs, finding only ſtones, which they judged to be of a metallic quality, and which they put on board the ſhip, not having the neceſſary means for extracting the metal they might contain.

The food of theſe Indians is freſh or dry fiſh, boiled or roaſted; herbs and roots, the produce of their mountains, and that in particular called in Spain ſea-parſley; and, laſtly, on the fleſh of animals which they take in the chace, which muſt undoubtedly

doubtedly be very plentiful, by the great number of dogs they breed up for that purpoſe.

The Spaniards perceived no veſtige of worſhip among them, except their ſometimes bending towards the ſun, but whether as an act of devotion, they could not aſcertain. Don Maurelle, in his expedition round the gulph, found, in two iſlands, three bodies laid in boxes, ſimilar to thoſe before deſcribed, and decked in their furs. Theſe biers were placed in a little hut, on a platform of the branches of trees.

The country is very hilly, the mountains very high, their ſlope extending, in almoſt every inſtance, down to the ſea. The ſoil, limeſtone, is notwithſtanding covered with a very impenetrable foreſt of loſty, thick, and ſtrait pine trees. As their roots cannot ſtrike deep into the ground, the violence of the wind often tears them up. They rot, and change into a light mould, in which grows a buſhy thicket, wherein are found nettles, camomile, wild celery, aniſe, a ſpecies of cabbage, celandine, elder, wormwood, ſorrel, and, no doubt, along the rivers, many other plants.

The Spaniards ſaw ducks, mews, divers, kites, ravens, geeſe, cranes, goldfinches, and other little birds, to them unknown.

The traffic between the Spaniards and Indians was perfectly undiſturbed; the former always keeping upon their guard, ready to defend themſelves in caſe of attack, the others contenting themſelves with ſtealing to their utmoſt, ſecretly if not obſerved, and openly if they thought they were the ſtrongeſt. For the better maintenance of peace, the Spaniards ſhut their eyes to petty thefts; but if any were committed too much to their prejudice, they ſeized upon ſome canoe, or perſonage of diſtinction, which was not releaſed till reſtitution was made; but this was attended with no bloodſhed.

The

The desire of procuring iron, cloth, and other stuffs, was, with some Indians, prevalent over paternal love, they selling their children for some vares of stuffs, or broken pieces of iron hoops. The Spaniards purchased, in this manner, three young boys, one five or six, the other four, and the third nine or ten years of age; not to make slaves, but Christians of them; hoping, at the same time, to derive from them useful information as to the nature of the country and its inhabitants. These children were so rejoiced at being with the Spaniards, that they concealed themselves when their fathers came on board, for fear of being returned to their parents. With the same view two little girls had likewise been bought; one, very ugly, seven or eight years old, the other younger and better made, but sickly, and almost at death's door.

The oldest of the boys appeared to have a vivacity of spirit and understanding by no means common; he soon made himself beloved by the whole crew. He signified, by very expressive signs, what his countrymen meditated, what they ought to do, and what was the end they proposed. He took the soldiers by the hand, conducted them to the *depôt* of arms, put the muskets in their hands, made signs for them to be charged, and give fire upon such or such a canoe, but to spare such and such another, which belonged to friends. The environs of this port are therefore inhabited by different tribes inimical to each other.

At the new and full moon the sea rises in the harbour of La Cruz to seventeen feet three inches English; the water is there high at a quarter past twelve at noon. The lowest tides are fourteen feet three inches; the night tides exceeded those of the day by one foot nine inches.

The south, south-east, and south-west winds being always accompanied by fogs, and continual rain, the

the Spaniards quitted La Cruz on the 15th of June, and gained the port of St. Anthony, with the intent of getting with greater eaſe out of the gulph, with the firſt north-weſterly winds, which they could not do till the 1ſt of July.

The 16th of July they diſcovered, half a league to leeward, a ſhoal, which they calculate to be in lat. 59° 2′ and long.* 147° 46′. They at a great diſtance ſaw Mount St. Elias, whoſe ſummit they ſay equals that of Oriſba in height.

The 17th, at noon, Cape St. Elias bore W. 40° N. at three leagues diſtance. Its latitude they eſtimate at 59° 53′, its longitude at 149° 20′. The charts repreſent an iſland in the vicinity of this cape: the point of this iſland neareſt the cape bore N. 18° W. five leagues off. The two points formed between them a channel three leagues wide. From the cape the coaſt runs to the north, inclining a little towards the north-weſt. In this part they diſtinguiſhed large bays, which they think muſt be well ſheltered harbours.

This iſland, ſays Don Maurelle, is larger than is laid down in the charts. The Spaniards, being but half a league diſtant, diſcovered a ſhoal to the S. W.

They got ſight, on the 18th, of a vaſt gulph W. of Cape St. Elias, ten leagues in depth. On the 20th two canoes of a ſingular conſtruction came along ſide, very thin boards or planks form the wood work, which are attached to each other by indifferently ſtrong cords, leaving however ſpaces between them; ſo that without the ſkin, it would make a true ſkeleton of a boat. This ſkeleton is ſurrounded completely with ſkins of animals, leaving a round aperture only at top, which ſerves as a girdle for him that manages the canoe, and to prevent the water from getting in at this

* All the latitudes are to the N. the longitudes to the W. of Paris. We have already obſerved, that theſe longitudes cannot be depended upon.

orifice,

orifice, the conductor cloathes himself with a skin made of bladders, tied exactly to fit the edges for the opening. These canoes, it is conceived, must be very light. Their form is exactly that of a harp, their prow having a similar curve to that whereon the strings of the harp are fastened.

The Indians who manage these canoes were cloathed with a skin jacket, which was a sufficient protection against the cold. Their hats resembled those of the inhabitants of the port of Bucarelli, large glass beads were the pendants they wore at their ears. Their fishing instruments are worked as if by a lathe with the greatest nicety, a great rod, blown up bladder, harpoon, the point of which is bone, and a long cord made with the entrails of animals properly twisted. They strike the otter or sea wolf with the harpoon, which thus struck attempts to dive, but is prevented by the bladder, and the Indian soon draws him within reach. The young Indians embarked at Bucarelli were desirous of communicating with these, but they neither understood the other. These two canoes induced the Spaniards to put in at the neighbouring coast, where they came to anchor the 20th of July at midnight, but early they next day they gained a creek which bore from them north, distant one league. They were sheltered from N.W. to the N. and S; a little further in they would have been protected from every wind. This port, which they named St. James's Harbour, lies in lat. 60° 16′ and long. 157° 52′. To satisfy themselves whether they were near an island or continent, they sent off the long boat, which after having sailed six or seven leagues to the N. N. W. reported that the coast turned E. whence they concluded that the land near which we were at anchor was an island *.

Six

* Upon a thorough investigation, I think that this port is near Cape Hinchinbrooke. Cook took no observations about this Cape, neither

Six canoes of Indians about 26 cubits long and 4 wide, lined with white ſkins, and by no means unlike the European boats in conſtruction, paid a viſit to the Spaniards. Before approaching, they hoiſted three flags, the firſt of a carnatic colour, the ſecond white, and the third blue; but they ſtruck them before they came along ſide. Their wives accompanied them, whoſe ſex is diſtinguiſhed by glaſs beads or other baubles hanging from both ſides of the mouth. They are in other reſpects nearly the ſame in dreſs as the women of Bucarelli.

The commandant having been once a fiſhing in the long-boat, it was very ſoon filled with fiſh of an agreeable flavour, which they called *pargo mulato*, but the fiſh of which there was the greateſt abundance in thoſe ſeas, is ſalmon, the pargo mulato being only plentiful in the little creeks which line the ſhore.

The Indians inhabiting this country are robuſt, tall, and large in proportion, induſtrious, and thieves. The points of copper with which all their arrows are tipped, made the Spaniards believe that there are mines of this metal in the country.

The 28th July our navigators weighed anchor to double a point which they ſaw in the S. W. 50° S. at 11 leagues diſtance (probably the ſouthern point of Montagu Island). They wiſhed not to loſe ſight of land, but the rain and fogs would not always permit them. They lay from the 30th to the 31ſt, when they found themſelves in the vicinity of a group of islands extending from S. S. W. to S. S. E. They came to anchor on the 1ſt of Auguſt to the S. of one of theſe islands, which they named Isle de Regla (Rule

neither did Dixon. The long boat could have penetrated into the bay, which is called Roſe Bay upon Dixon's Chart; and ſeeing it entirely cloſed to the E. its courſe might have been continued towards the coaſt running to the N. N. W. As for the reſt, I think the tranſcriber may have written for longitude 157 min. 52 deg.; long. 153 min. 52 deg.—The manuſcript abounds with faults.

Island).

Island). They place it in 155° 52′ of longitude by account, and 59° 8′ of latitude by observation *. Don Maurelle is of opinion, that these islands form what on Bellin's chart, engraved in 1766, is called *Cape St. Ermogene*; the latitude is the same. The Russians observing this groupe at a distance, might not have seen the intermediate channels which divide it into several islands, and therefore taken it for a point of Terra Firma. The island of Regla had many others towards the south.

On the 3d of August the sky being clear, a mountain, certainly higher than the peak of Teneriff, entirely covered with snow, was seen to the N. W. 7° N. at more than 20 leagues distance. In the evening by twilight, it was observed to vomit torrents of thick smoke. The crater from whence these torrents issued was a little more easterly than the summit of the mountain; it was thought to be a volcano. Near this another was observed, very high, whereon was not the least appearance of snow; it bore W. N. W. 8° W. at the distance of 15 leagues. Two others were afterwards remarked, the bearing of the highest of which was W. S. W. 4° S. 13 leagues distant; the two latter, although high, were less so than the preceding ones, and they were notwithstanding entirely covered with snow.

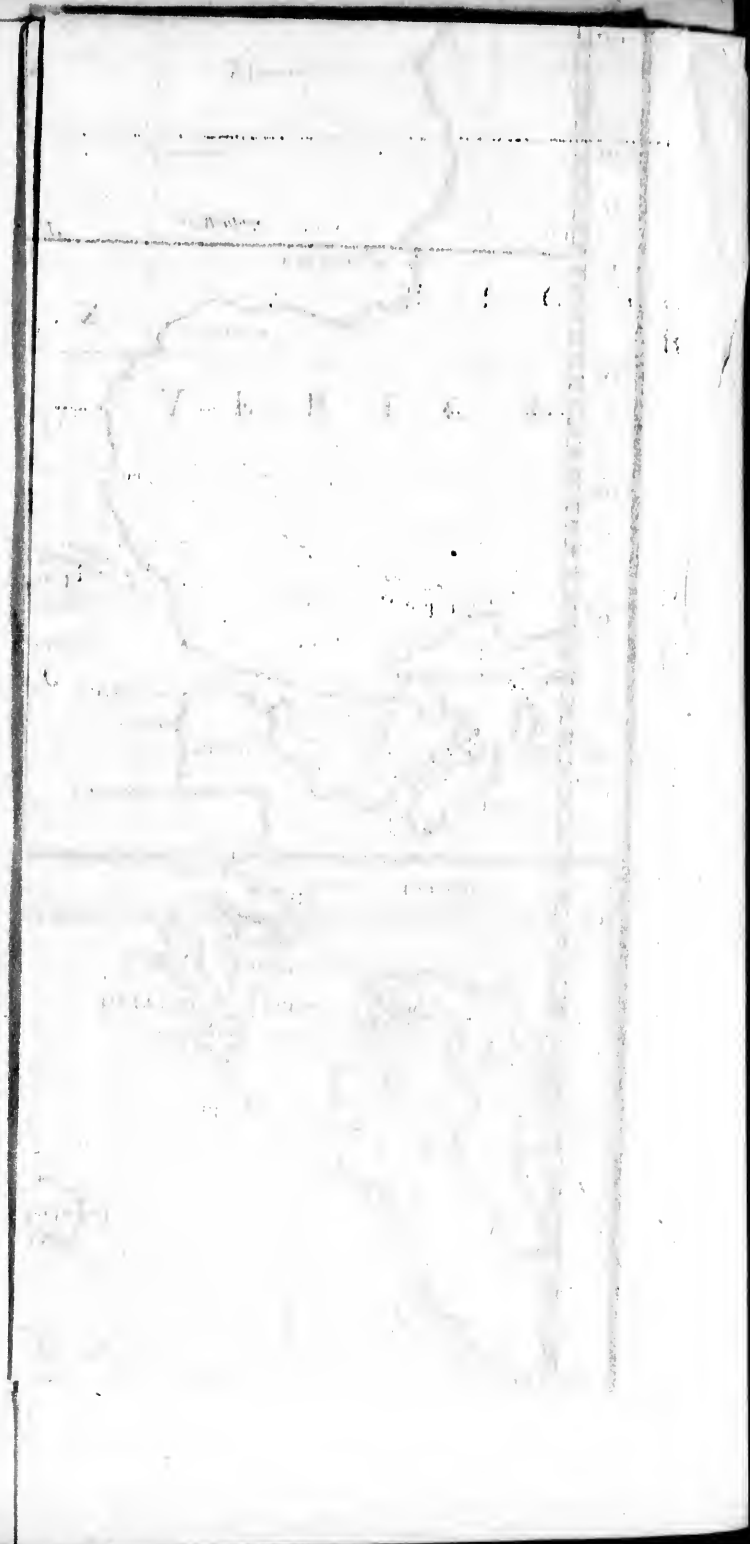
On Regla Island were found some small huts, sea wolves just skinned, and a great number of birds' heads, but not a single inhabitant. After two or three days stay, a canoe appeared at one of the neighbouring

* On the chart of Prince William's Sound (Cook's third voyage, vol. iii.) is a place that might be taken for the groupe of islands, of which the island of Regla makes a part; it is to the S. W. of Montagu Island, about lat. 59 min. 8 deg. long. 210 min. 30 deg. to 40 deg. E. of Greenwich (or 150 min. 40 deg. to 50 deg. W. of Paris). Cook passed about 15 leagues to the westward of these islands, Dixon as much to the east. These islands may not be high enough to be seen at this distance; they may also be more westerly than is imagined.

points.

points. The Indians uttered ſome words, but would not come to the frigates. The expedition of the Spaniards terminated at this island, which they quitted the 7th of Auguſt, and anchored at St. Blas the 27th of November. From Cape St. Elias to the Island of Regla they took bearings with the greateſt minuteneſs, of all the islands, capes, and bays which they recognized; but the winds and currents, very frequent, and violent, in theſe ſeas, drove them off the coaſt oftener than they would have wiſhed, and was prejudicial to the accuracy of their eſtimated route. If, however, they publiſh the chart which they have conſtructed according to their bearings, their obſervations, in conjunction with thoſe of Capt. Cook, La Perouſe, and Capt. Dixon, will contribute in a conſiderable degree to bring the geography of that part of the coaſt of North America to perfection.

VOYAGE



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VOYAGE

ROUND THE WORLD,

IN THE YEARS

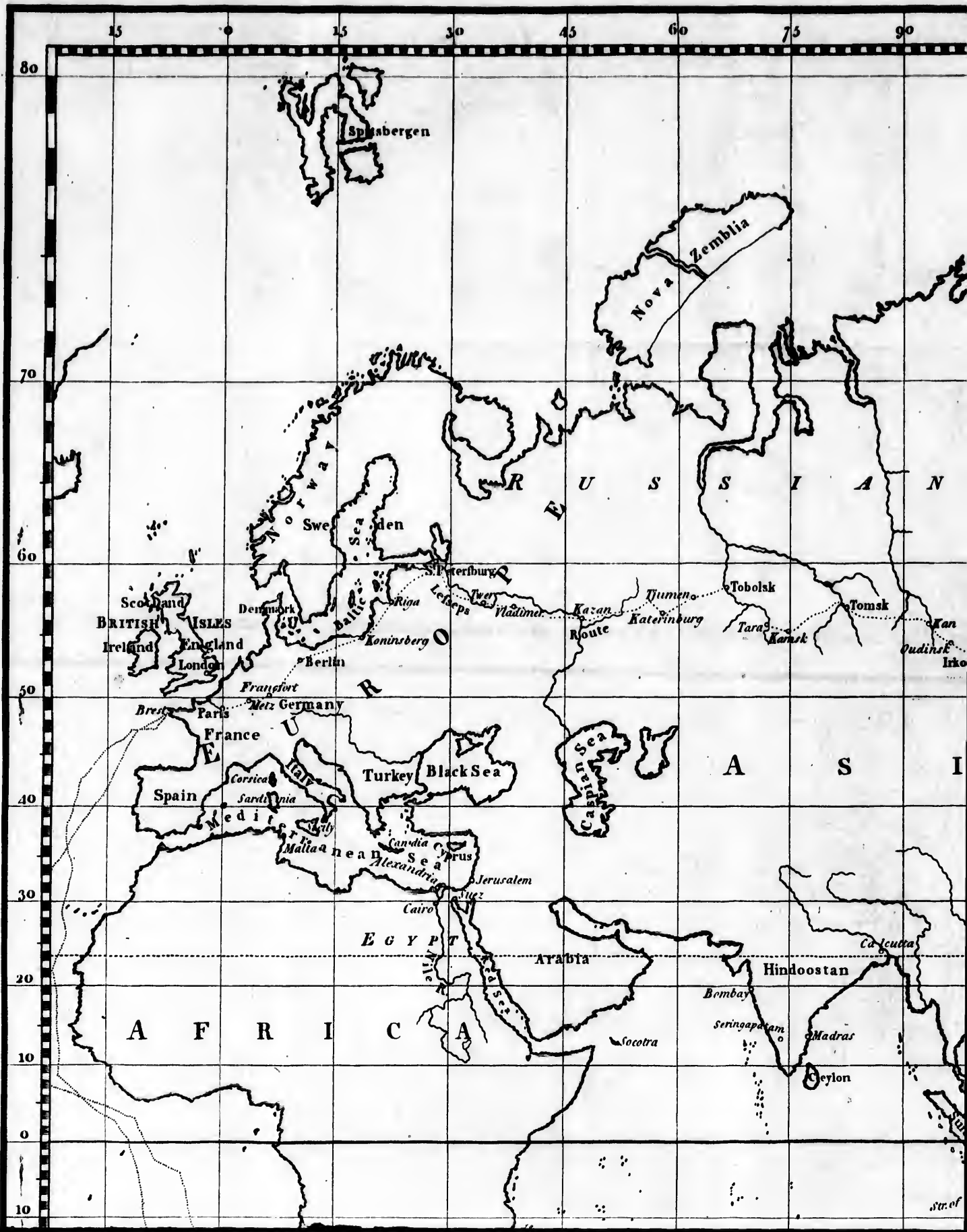
1785, 1786, 1787, AND 1788.

CHAP. I.

OBJECT OF THE VOYAGE AND EQUIPMENT OF THE TWO FRIGATES; STAY IN BREST ROAD—PASSAGE TO MADEIRA AND TENERIFFE; STAY IN THOSE ISLANDS — EXCURSION TO THE PEAK—ARRIVED AT TRINIDAD—TOUCHED AT ST. CATHERINE'S, ON THE COAST OF BRASIL.

THE voyage of Ellis to Hudson's Bay, in 1747, had by no means answered the expectation of those who had advanced the fund for that enterprize. Captain Bouvet, on the first of January, 1739, who thought he had discovered land in 54° south latitude, which it now appears probable was only a mass of ice, had, by this mistake, retarded the progress of geography, and the ancient spirit of discovery appeared almost extinguished. The makers of systems, who delineate continents and islands in the retirement of the closet, concluded that the pretended Cape Circumcision was the northern most point of the southern continent, the existence of which appeared to them necessary to the equilibrium of the globe*. The

* Those who maintain the existence of a southern continent, will deem the assertion of La Pérouse too bold. Yet, without pretending that Cape Circumcision belongs to a field of ice rather than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Spitsbergen
Nova Zemblia
Norway
Sweden
Sea
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EUROPE
ASIA
AFRICA
S.Petersburg
Riga
Lefseps
Iwer
Vladimer
Kazan
Route
Tjumen
Katerinburg
Tobolsk
Tomsk
Tara
Kamsk
Oudinsk
Irkoutsk
Scotland
BRITISH ISLES
Ireland
England
London
Denmark
Baltic
Koninsberg
Berlin
Frankfort
Metz
Germany
Brest
Paris
France
Spain
Corsica
Sardinia
Italy
Turkey
Black Sea
Caspian Sea
Mediterranean Sea
Malta
Candia
Cyprus
Alexandria
Jerusalem
Suez
Cairo
EGYPT
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Red Sea
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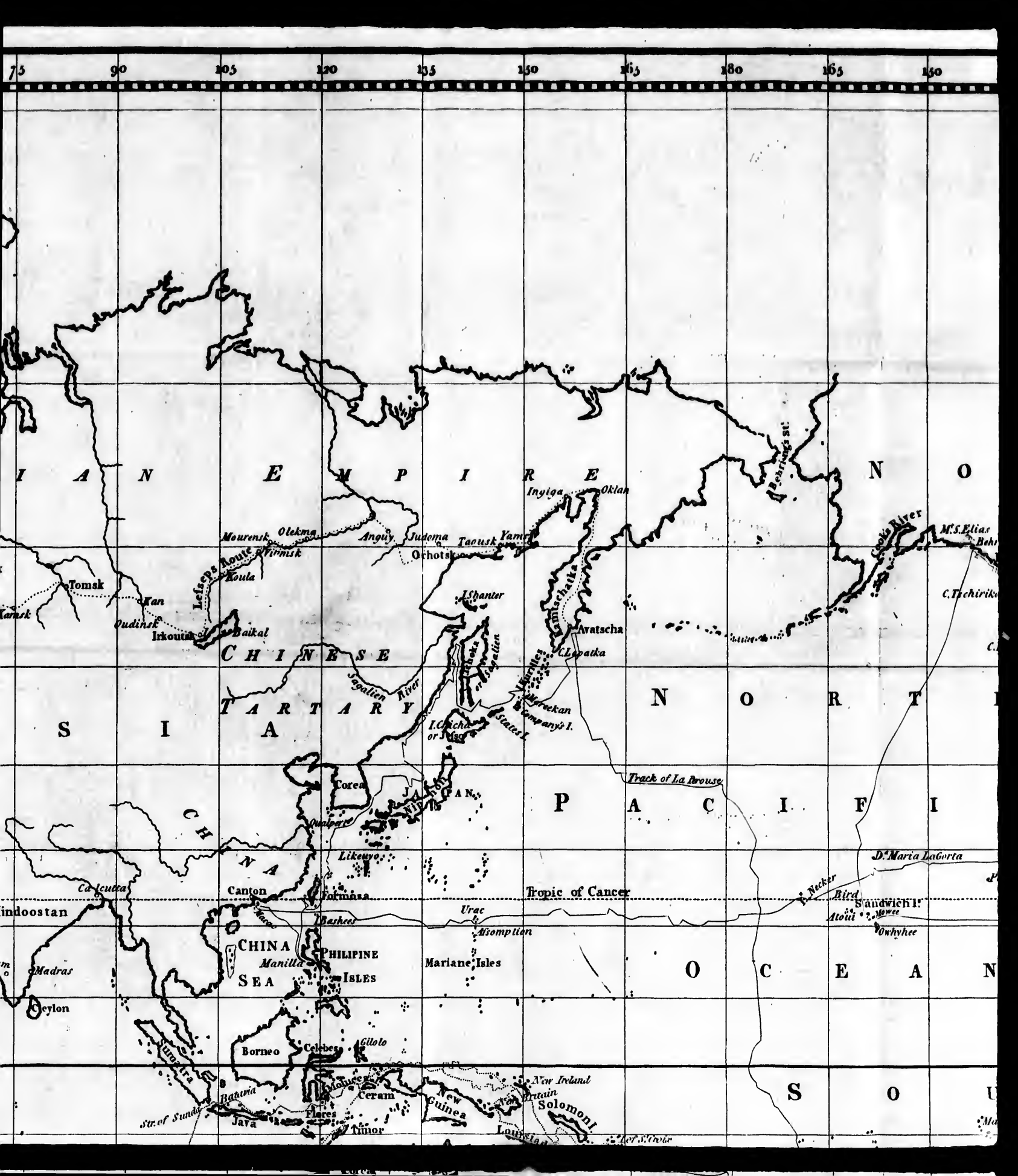
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Oklan
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Mourensk
Olekma
Anguy
Judoma
Taouisk
Yamsk
Orhotsk
Coolic River
M.t S.t Elias
Tomsk
Lesseps Route
Virimsk
Koula
Kan
Oudinsk
Irkoutsk
Baikal
J. Shanter
Kamtschatka
Avatscha
C. Lopatka
C. Tschirikof
C H I N E S E
T A R T A R Y
Sagalien River
Tchoka
Sagalien
Kurilles
Marekan
Company's I.
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I. Chicha or Jesso
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N O R T H
Corea
Nipon
J A P A N
Track of La Perouse
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C H I N A
Likeuyo
D.t Maria Laborta
Calcutta
Canton
Formosa
Tropic of Cancer
Necker
Bird
Sandwich I.s
Hindoostan
Macao
Bashees
Urac
Assomption
Atoui
Mowee
Owhyhee
CHINA SEA
Manilla
PHILIPINE ISLES
Mariane Isles
O C E A N
Madras
Ceylon
Sumatra
Borneo
Celebes
Gilolo
Batavia
Moluco
Ceram
New Ireland
New Britain
Solomon I.
Str.t of Sunda
Java
Flores
Timor
New Guinea
Louisiad
S O U
Arch.o S.t Croix


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205
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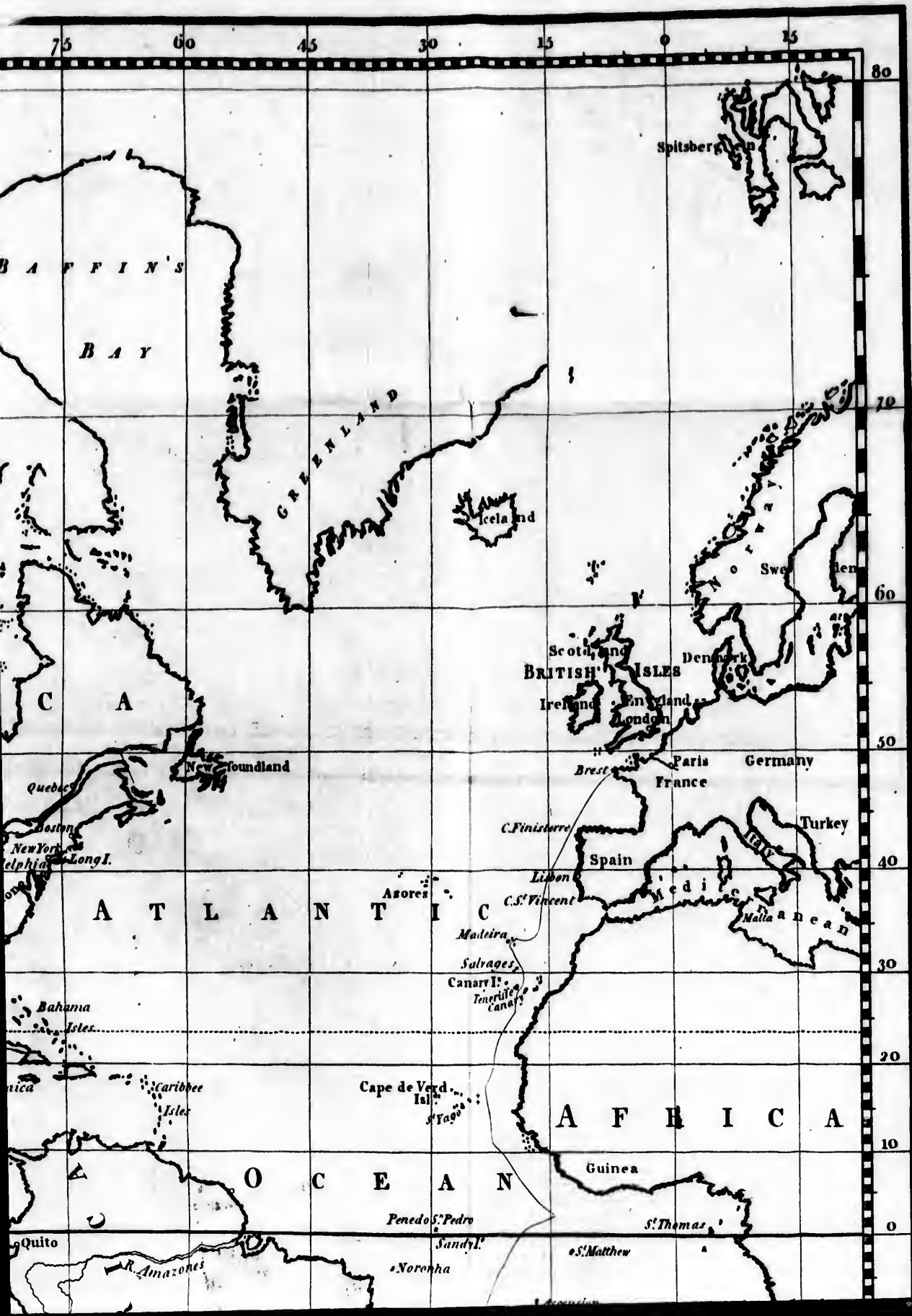
BAFFIN'S
BAY
NORTH
AMERICA
Hudson's
Bay
Cook's River
M.t S. Elias
Behring B.
Port des François
Trois Sound
P.t de los Remedios
M.t S. Hyacinth
C. Tschirikow
M.t Bucarelli
B. Clonard
M.t M.t Fleurieu
C. Hector
B. S. Louis
Nootka
Anse des Martyrs
C. Redondo
C. Blanco
P.t de la Trinidad
C. Mendozino
P.t S.t François
Monterey
Quebec
Boston
New York
Philadelphia
Long I.
Washington
Charlestown
Savannah
Bahama
Isles
Cuba
Mexico
Jamaica
Caribbee
Isles
Gallapagos
Quito
R. Amazones
Marquesas
D.t Maria La Gorta
Pajaros
Bird
Sandwich I.
Atoui
Owhyhee
Track of La Perouse
PACIFIC
OCEAN
SOUTH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Iceland
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Scotland
BRITISH
ISLES
Denmark
Ireland
England
London
CA
Newfoundland
Quebec
Boston
NewYork
Philadelphia
Long I.
Brest
Paris
France
Germany
C. Finisterre
Turkey
Spain
Lisbon
Azores
C. St. Vincent
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Mediterranean
Malta
Madeira
Salvages
Canary Is.
Tenerife
Canary
Bahama Isles
Caribbee Isles
Cape de Verd Isl.
St. Yago
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Guinea
OCEAN
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St. Thomas
Quito
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Sandy I.
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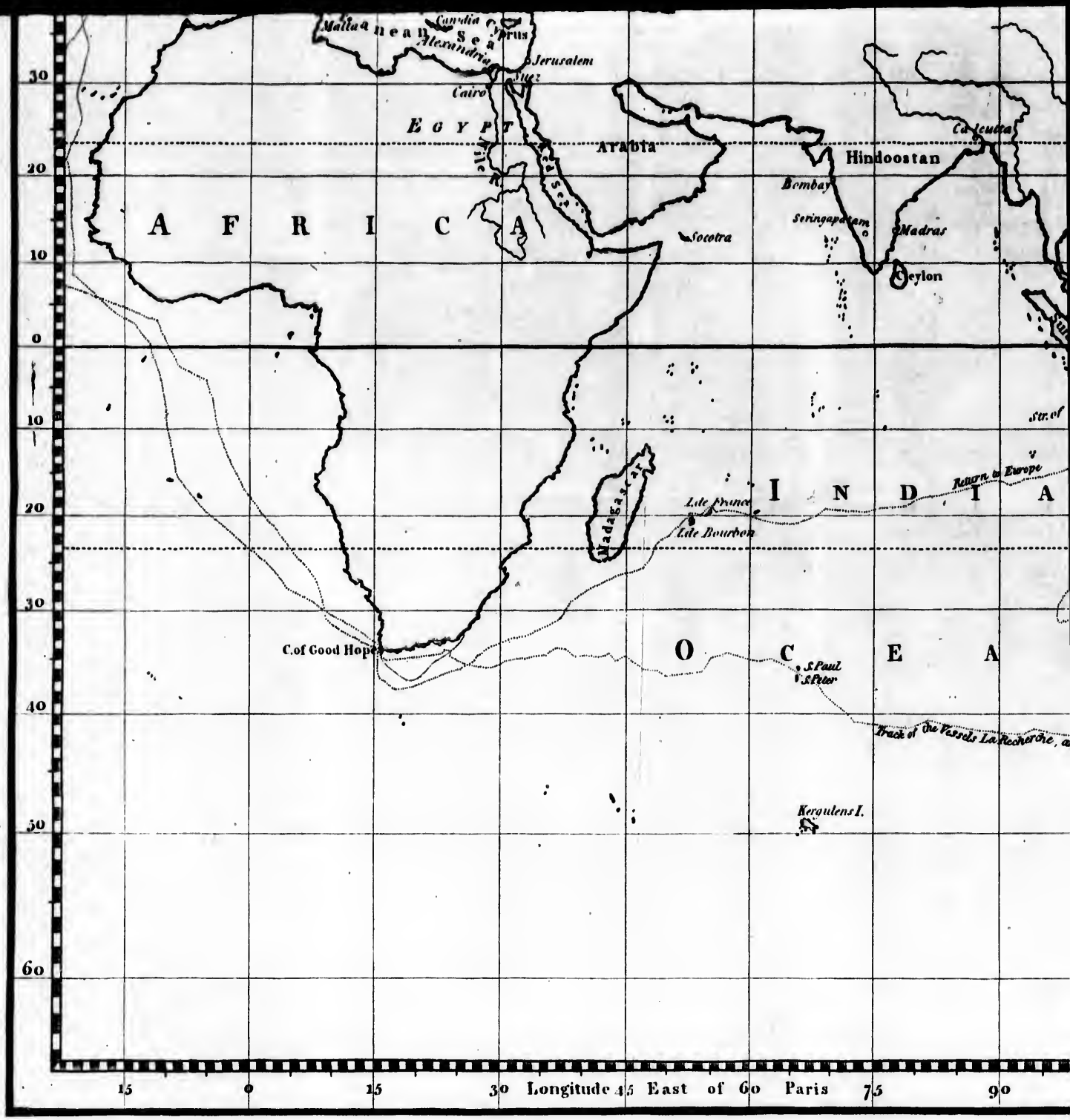
Mediterranean Sea
Candia
Cyprus
Alexandria
Jerusalem
Suez
Cairo
EGYPT
Nile R.
Red Sea
Arabia
Calcutta
Hindoostan
Bombay
Seringapatam
Madras
Socotra
Ceylon
AFRICA
Str. of
Madagascar
Isle France
Isle Bourbon
Return to Europe
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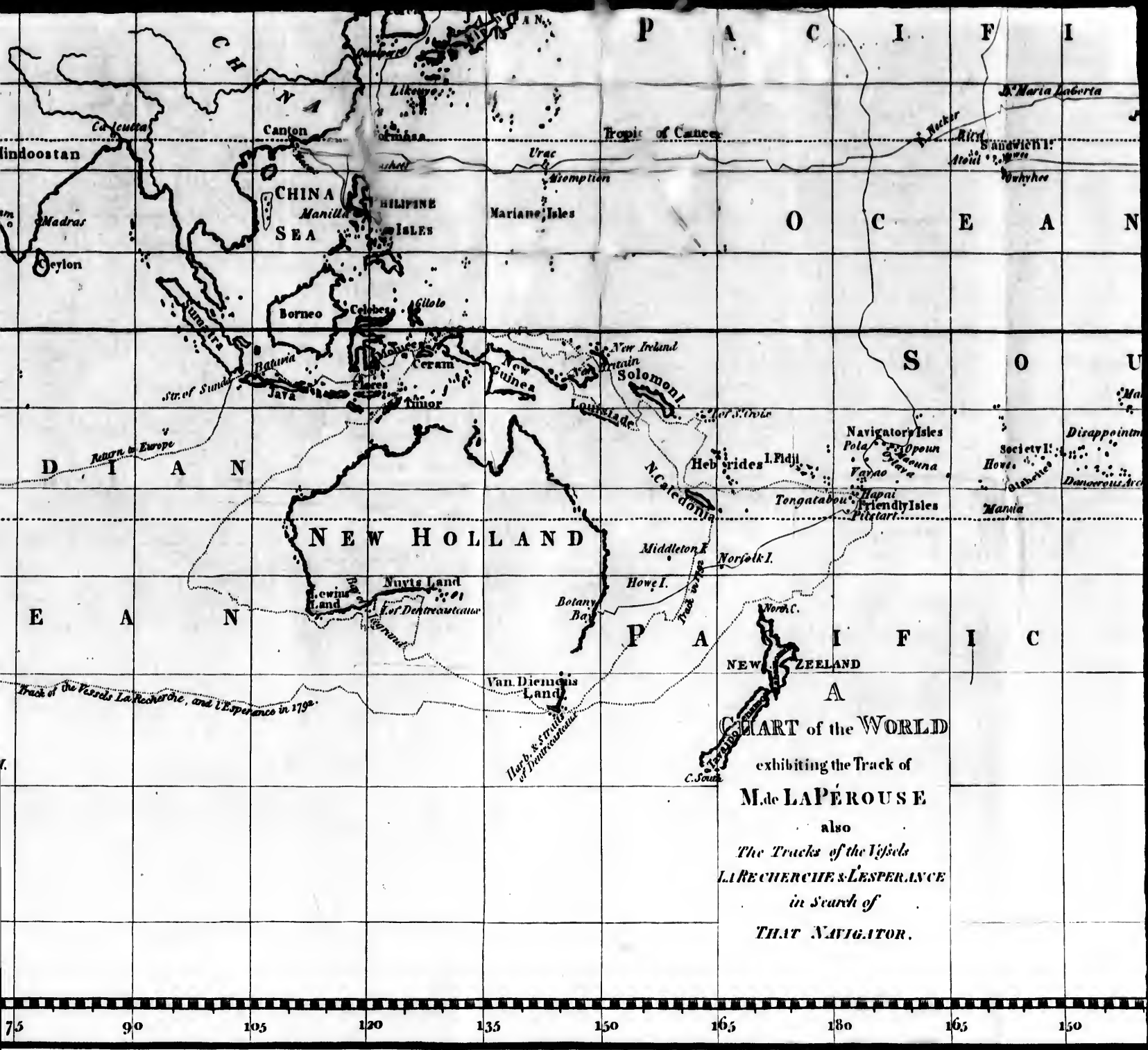

A
CHART of the WORLD
exhibiting the Track of
M.de LAPÉROUSE
also
The Tracks of the Vessels
LA RECHERCHE & L'ESPERANCE
in Search of
THAT NAVIGATOR.

Published April 16th 1800 by J. Stockdale Piccadilly.

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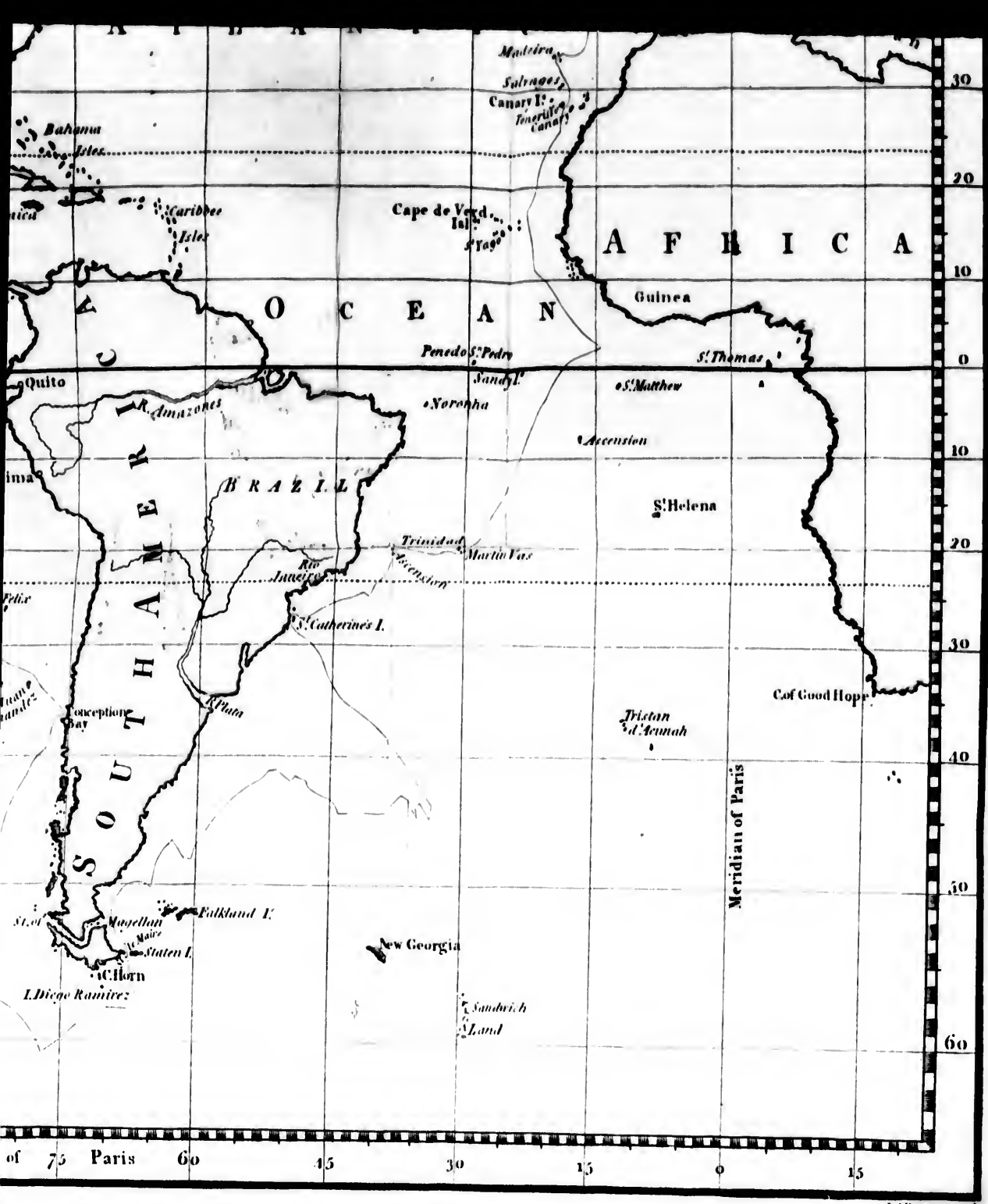

J. Allen Sculp.

The event of those two voyages might not unreasonably discourage individuals, who, from a mere spirit of curiosity, were sacrificing considerablesums to an object which had long ceased to attract the attention of the various maritime powers of Europe.

In 1764, England fitted out a new expedition, the command of which was entrusted to Commodore Byron. The accounts of that voyage, and those of Wallis, Carteret, and Cook, are generally known.

In the month of November, 1766, M. de Bougainville set sail from Nantes, with the Boudeuse

than to an island* ; without resolving the idle problem of a southern continent, since it must be situated in a latitude by which it will be for ever insulated from the rest of the globe, I shall observe, that the first voyages of Cook round the south pole have fully determined the question ; and that the arguments of Le Monnier, to prove that Cook did not seek Cape Circumcision in its true longitude, are not of the least importance †. But while I am declaring my opinion in favour of the existence of a southern continent, I do not believe that continent necessary to support the equilibrium of the globe. What, indeed, could be the effect of so small a protuberance, on so enormous a mass, when the least variation in the specific gravity of its internal component particles would be sufficient to counterbalance any inequality, however great, on its surface.

Though Captain Cook professes *a hope that no more will be said of a southern continent* ‖, it will perhaps be of service, some ages hence, to determine the progress which the ice may make towards the equator ; and thus establish a proof of the ingenious theory of Buffon, that the earth is gradually losing its heat. But it will require many centuries to establish a probable system : for navigators have met with ice in a higher or lower latitude, at the same periods of different years. Those engaged in the whale fishery who go annually to Spitsbergen, have, it is said, once penetrated within one degree of the pole ; and a passage to the north appears to have been navigated by Lorenzo Ferrer de Maldonado, of whom I shall elsewhere speak ; but this has never since been met with by our most intrepid navigators, who have been constantly repulsed by the ice.—*Note of the French Editor.*

* Captain Cook having passed considerably to the southward of the land discovered by Bouvet, Cape Circumcision cannot possibly belong to a southern continent.

† See the Memoirs of the Academy of Sciences at Paris for the year 1766, p. 665 ; the year 1779, p. 12 ; Cook's Second Voyage, vol. iv. p. 109, and following pages ; Cook's Third Voyage, vol. i. p. 425, and following pages.

‖ Cook's Third Voyage, vol. iv. p. 120.

frigate,

frigate, and a pink called l'Etoile. Steering nearly the same course as the English navigators, he discovered several islands; and the account of his voyage, written with animation, has not a little contributed to inspire the French with that taste for discovery which had just revived with so much energy in England.

In 1771, M. de Kerguelen was sent upon a voyage towards the southern continent, the existence of which no geographer at that time had even ventured to dispute. In December, of the same year, he descried an island: but the weather prevented him from completing his discovery. Full of the ideas which he entertained in common with all men of learning in Europe, he did not doubt but he had discovered a cape of the southern continent. His eagerness to announce this news, did not allow him for an instant to delay his return; and he was received in France as a second Columbus. A ship of the line and a frigate were immediately equipped to prosecute this important discovery. The choice of vessels so unusual for such an expedition, would alone be sufficient to demonstrate that enthusiasm had for a time banished reflection. M. de Kerguelen had orders to lay down a chart of the supposed continent he had discovered. The ill success of this second voyage is well known. Even Captain Cook, that first of navigators, could not have succeeded in a similar enterprize, with a ship of 64 guns, a frigate of 32, and 700 sailors. He, perhaps, would have declined the command, or obtained a more suitable equipment. At length M. de Kerguelen returned to France with as little information as before, and discoveries were no longer pursued. The king died in the course of the last expedition, and the war of 1778 directed every attention to far different objects. It was not, however, forgotten that our enemies had the Discovery and Resolution at sea; and that Captain Cook,

labouring to enlarge the sphere of our knowledge, deserved to be considered as a friend by all the nations of Europe *.

The principal object of the war of 1778 was to secure the tranquillity of the seas, and was accomplished in 1783. The same spirit of justice which had recourse to arms to procure for the flags of those nations which were weakest by sea an equal respect with those of France and England, should, during peace, be directed to whatever is most conducive to the felicity of mankind. The sciences, by softening our manners, have contributed more perhaps than the laws themselves to the welfare of society.

The voyages of the various English Navigators, by which the sphere of science was enlarged, had merited the just admiration of the whole world. Europe had paid due veneration to the great talents and exalted character of Captain Cook: but, in a field so vast, succeeding ages will but furnish new objects of science to develope. Strange coasts will long remain to be explored; plants and trees of new kinds; birds and fish of unknown species are yet to be described; minerals to be analized; volcanos to be investigated, and nations to be studied; on whom, perhaps, we may bestow new means of happiness. For, to the inhabitants of the South Sea, a new species of fruit, or a farinaceous plant, which we may

* Every consideration engages me here to recal to view a fact equally glorious to the French, and to him who became the object of their urbanity, amid the horrors which the policy of war renders necessary.

At the period of hostilities against England, in 1778, orders were issued to all ships of war that should meet the Discovery and Resolution, commanded by Captain Cook, to let them pass without interruption; and so far from treating them as enemies, to furnish them with every needful supply.

Thus it is that a great nation manifests a religious respect for useful discoveries, and for the improvement of science.—*French Editor.*

introduce

introduce among them, are benefits of inestimable value*.

These reflections suggested the project of a voyage round the world; and learned men of every de-

* But can the advantages to be derived from a new farinaceous plant, a new species of fruit, or even the introduction of domestic animals stand in comparison with that mass of evils which must result to these people from the introduction of European customs and manners?

Examining this problem in the different views of philosophy, of policy, or even of religion, considering what they now enjoy; and well persuaded that new desires can only spring from a knowledge with which they are yet unacquainted; we must, I think, most ardently wish that they may long continue to enjoy that felicity, that unalterable tranquillity which can only be founded on the satisfaction of the heart, the tender pleasures of sentiment, the unrestrained enjoyment of sympathy, and an obedience to the laws of nature and simplicity.

The following passages, extracted from Cook's third voyage, come in support of my opinion:

"When the Adventure arrived first at Queen Charlotte's Sound, in 1773, Mr. Bayly fixed upon this place for making his observations; and he, and the people with him, planted several spots with English garden-seeds. Not the least vestige of these now remained. ——Though the New Zealanders are fond of this root (the potatoe), it was evident that they had not taken the trouble to plant a single one (much less any of the other articles which we had introduced); and if it had not been for the difficulty of clearing ground where potatoes had been once planted, there would not have been any now remaining." Vol. i. p. 125.

"These two Chiefs became suitors to me for some goats and hogs. I gave to Matahonah two goats, a male, and female with kid; and to Tomatongeauooranne two pigs, a boar and a sow. They made me a promise not to kill them; though I must own I put no great faith in this. The animals which Captain Furneaux sent on shore here, and which soon after fell into the hands of the natives, I was now told were all dead. Vol. i. p. 131.

"He said (i. e. Taweiharooa) that the Captain of her, during his stay here, cohabited with a woman of the country; and that she had a son by him about the age of Kokoa; who, though not born then, seemed to be equally well acquainted with the story. We were also informed by Taweiharooa, that this ship first introduced the venereal disease among the New Zealanders. I wish that subsequent visitors from Europe may not have their share of guilt, in leaving so dreadful a remembrance of them amongst this unhappy race." Vol. i. p. 141.

scription were employed in the expedition. M. Dagelet, of the Academy of Sciences. and M Monge *, both Professors of Mathematics in the Military School, were appointed astronomers; the former embarked on board the Boussole, and the latter in the Astrolabe.

To M de Lamanon, of the Academy of Turin, and corresponding member of the Academy of Sciences, was allotted the department of Geology or natural history of the earth and atmosphere; the Abbé Mongès, Canon of St. Geneviève, Editor of the *Journal de Physique*, analizing and examining minerals, and generally to superintend the different branches of natural philosophy. M de la Martinière, Doctor of Physic, graduated at Montpelier, was appointed by M. de Jussieu to the botanical department. He was assisted by M Collignon, one of the King's gardeners who, on the recommendation of M. Thouin, was to cultivate and preserve the plants and seeds we might be able to bring back with us to Europe. Messrs. Prevost, uncle and nephew, were engaged to make drawings of the various objects of natural history. M. Dufresne, a great naturalist, and very expert in classing the different productions of the earth, was appointed for that purpose by the Controller General. And, lastly, M. Duché de Vancy received orders to paint the dresses, landscapes, and in general whatever cannot, as it often happens, be otherwise described. All the learned bodies of the kingdom were upon this occasion earnestly desirous of testifying their zeal for the improvement of the arts and sciences. The College of Physicians and the Academy of Sciences each addressed a memorial to the Marshal de Castries, on the most important objects for our attention during the expedition.

* The health of M. Monge became so bad from Brest to Teneriffe, that he was obliged to return to France.

The

The Abbé Tessier, of the Academy of Sciences, proposed a method of preserving fresh water from corruption. M. du Fourni, Military Architect, furnished observations on trees, and the method of taking the level of the sea. M. le Dru addressed to us a memorial, directing our attention to the variations of the compass in different latitudes and longitudes; and presented us with a dipping-needle constructed by himself, the indications of which he requested us to compare with those of the two dipping-needles, sent us by the British Board of Longitude. I ought also to express my gratitude to Sir Joseph Banks, who having been informed that M. Monneron could not procure a dipping-needle in London, was pleased to lend us those which had been used by the celebrated Captain Cook, which I received not without a sentiment of religious respect for that great man.

M. Monneron, Captain in the corps of engineers, who had attended me in my expedition to Hudson's Bay, embarked as principal engineer. His friendship for me, as well as his partiality for the sea, induced him to solicit this appointment. He was engaged to lay down bearings and draw plans. M. Bernizet, geographical engineer, was his assistant in this department.

In fine, M. de Fleurieu, an old naval Captain, superintendant of the ports and arsenals, himself drew up the necessary charts for the voyage; in addition to which he furnished us with a complete volume of notes and disquisitions of great learning, upon the different navigators from the time of Columbus to the present day. This public testimony of gratitude is due to him for the information he has communicated to me, and the friendship of which he has given me such repeated proofs*.

The

* The arts and sciences will share most deeply in the regret which all Europe must feel for the loss of our navigators. The

 immense

The Marshal de Castries, Minister of Marine, who had recommended me to the King for this command, had given strict orders at the different ports that we should be supplied with every thing requisite to ensure the success of the voyage. Lieutenant-General d'Hector, who commanded the fleet at Brest, entered into his views, and attended to the particulars of my equipment with as much zeal as if he himself was to have conducted the expedition.

Being indulged with the choice of all the officers, I appointed to the command of the Astrolabe, M. de Langle, a Captain in the navy, who had commanded the Astrée in my expedition to Hudson's Bay, and had given, on that occasion, the strongest proofs of talents and exalted character. A hundred officers proposed themselves to M. de Langle and myself for this expedition: and all whom we selected were distinguished for their scientific accomplishments. On the 26th of June my instructions were sent me; and on the first of July I set off for Brest, where I arrived on the 4th, and found the equipment of the two frigates in a very forward state. The embarkation of different stores had been suspended, because it was necessary for me to choose between articles of exchange with the savages, and provisions with which I would gladly have stocked myself for several years. I gave the preference to articles for barter, thinking they might procure us fresh provisions; when those on board would be nearly spoiled by keeping. We had also on

immense collection made by their learned coadjutors, and a part of their notes have perished with them. This voyage, highly interesting in its present state, would have presented a most valuable whole, had it not been for this tragical event. If any hope be still permitted, its rays are very feeble, and every day destroys the small remains we are yet willing to cherish.

board

board the frame of a decked boat*, of about 20 tons burthen, two Biscay shallops†, a spare main-mast, a rudder check, and a capstan. In short, my ship contained an incredible quantity of stores. M. de Clonard, my first Lieutenant, had stowed them with that zeal and intelligence of which he has afforded such frequent proofs. The Astrolabe had taken on board exactly similar articles. We were in the road on the 11th; but our vessels were so encumbered that it was impossible to heave at the capstan. We took our departure, however, in a fine season, and were in hopes of reaching Madeira without meeting with bad weather. M. d'Hector ordered us to take in harbour moorings, that we might have nothing to do, but slip our cables when the wind should permit us to sail.

On the 12th we were reviewed. The same day, the astronomical clocks by which when in harbour we were to verify the daily rate of the time-keepers, were put on board. These had been accurately observed for a fortnight. Messrs. Dagelet, and Monge, with the other men of science and the artists had reached Brest before me: Messrs. de Langle and d'Escures had observed the rate of the time-keepers before the arrival of the two astronomers; but unfortunately the astronomical clock by which they were regulated, was found so bad, that it was necessary to begin the whole process anew.

In the evening of the 13th, M. Dagelet sent me the following note:

"Upon our arrival at Brest we found an astronomical station established in the garden belonging to the Commissioner's house, where Messrs. de Langle

* A very strong kind of flat-bottomed vessel, used in Holland and Flanders, well calculated for inland navigation.—*French Editor.*

† *Barca longa*, long boats, very narrow at the extremities, and fit for navigating a swelling sea.—*French Editor.*

and

and d'Escures were engaged in making observations, in order to ascertain the rate of the time-keepers. But as the instruments of the Academy of Brest, and particularly the astronomical clocks they had used, were in the very worst state, they found it necessary to refer every comparison of the time-keepers to No. 25*, which was in the observatory. When our instruments were set up on shore, I determined the rate of my clock by the altitude of the sun and stars; every day comparing the time-keepers, No. 18 and 19, by means of signals from on board, and of which I drew up the following table:"

Days of the Month.	No. 18. LOSS OF TIME, according to mean Time at Paris.			No. 19. LOSS OF TIME, According to mean Time at Paris.		
28th June	36′	46″	8	27′	51″	0
30 ib.	37	7	1	27	47	7
1st July	37	19	0	27	45	0
2 ib.	37	31	0	27	44	2
3 ib.	37	39	5	27	45	4
4 ib.	37	51	8	27	44	0
5 ib.	38	5	0	27	42	0
6 ib.	0	0	0	27	42	1
7 ib.	38	36	7		ditto	
8 ib.	38	49	3		ditto	
9 ib.	39	3	0	27	48	8
10 ib.	39	13	6	27	42	5
11 ib.	39	27	0		stopped	
12 ib.	0	0	0	0	36	6
13 ib.	0	0	0	0	36	4

The westerly winds detained us in the road 'till the first of August; during which time we had fogs

* All the time-pieces on board the two frigates were invented and constructed by Ferdinand Berthoud, who has distinguished them by numbers.—*French Editor.*

and

and rain; and though I was fearful lest the health of the crews should suffer from the humidity of the weather; yet, in 19 days, we only put one man on shore, who was in a fever.

It set sail from Brest-road on the first of August. Nothing interesting occurred on my passage to Madeira, where we anchored on the 13th. The wind had been constantly fair, a circumstance exceedingly favourable to our vessels, which, from having too much weight forwards, steered very badly. During the fine nights of this passage, M. de Lamanon noticed those luminous particles in the salt water, which proceed, in my opinion, from the decomposition of marine substances. Were this light produced by insects, as many natural philosophers assure us, they would not be spread in such profusion from the pole to the equator, and would be most abundant in particular climates*.

No sooner had we cast anchor at Madeira than Mr. Johnston, an English merchant, sent on board my ship a boat-load of fruit. Several letters of recommenda-

* According to the result of the experiments presented by Rigaud, in 1768, to the Academy of Sciences at Paris, we cannot doubt the existence of polypi, or luminous animals in sea-water. I cannot discover on what La Pérouse can rest an assertion combatted by Godeheu, who observed near the Maldives and on the Malabar coast, places where the sea is more luminous than in the parts of which our navigator speaks, and that the water was covered with small luminous animals, discharging an oily liquor which swam upon the surface and emitted a phosphoric light when agitated.

I therefore believe the existence of these animalculæ, supported by the observations of Nollet, Roy, Vianella, Grisellini, &c. I am also of opinion, that the phosphoric oil of certain fish arriving at the surface of the water, produces, in part, the luminous appearances observed throughout the surface of the ocean.

In support of my opinion I shall cite the effect of the oil of the bonita, which becomes luminous when agitated. I may also refer to the observations of Forster upon the phosphoric light of sea-water, at the end of Cook's second voyage; and those of Lalande, Journal des Savans 1777.—*French Editor.*

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tion from London had previously reached him, which greatly excited my astonishment, as I was entirely ignorant of the persons by whom they were written. A kinder reception than Mr. Johnston gave us, we could not expect from our own friends and relations. Having paid our visit to the governor, we went to dine with this gentleman, and the next day breakfasted at the delightful seat of Mr. Murray, the English Consul, from whence we returned to the town, and dined with M. Moutero, who was Chargé des Affaires of the French Consul. During the whole of that day, we enjoyed every pleasure the most select company or the most marked disposition to oblige, could afford, and were at the same time filled with admiration by Mr. Murray's beautiful villa. From the prospects presented by this charming situation, our attention could only have been diverted by the consul's handsome nieces who soon convinced us no kind of beauty was wanting to this enchanting spot. Had not unavoidable circumstances prevented, it would have afforded us great pleasure to have passed some days at Madeira, where we had met with so polite a reception. But the object of our going on shore could not then be accomplished. The English having raised the wine of this island to an exorbitant price, we could procure none for less than 13 or 14 hundred livres per ton, though it was sold for 6 hundred livres at Teneriffe. I therefore ordered every thing to be prepared for our departure next day, which was the 16th of August. The sea-breeze did not subside till six in the evening, when we immediately got under sail. I also received from Mr. Johnston a great quantity of fruits of various kinds, a hundred bottles of Malmsey, half a hogshead of dry wine, some rum, and some preserved lemons. The most flattering civilities from this gentleman, distinguished every moment of my stay at Madeira.

We reached Teneriffe after a passage of only three days,

days, and anchored there on the 19th, at three in the afternoon. On the 18th, in the morning, I made Salvage island, the eastern part of which I ranged at the distance of half a league. It is very healthy; and though I had no occasion for sounding, I am persuaded there are a hundred fathoms water within a cable's length of the shore. There is not a single tree on this island which is not entirely parched up, and appears to be formed of strata of lava, and other volcanic matter. We took several bearings to determine its direction.

The observations of Messrs. Fleurieu, Verdun and Borda, leave nothing to be accomplished with regard to the islands of Madeira, Salvage and Teneriffe. The sole object therefore of ours was to verify our instruments, and the rate of our time-keepers, which had been determined by M. Dagelet at Brest, with so much accuracy, that we could rely upon them for the longitude during several days. Our landing at Madeira was very convenient for ascertaining what degree of exactitude we might expect from them. The longitude we had observed in sight of land, and referred to that of the town of Funchal, did not differ more than three minutes of a degree from that determined by M. Borda. The short stay we made in this island, did not allow us to erect an observatory. Messrs Dagelet, d'Escures, and Boutin, only made some sketches from the bearings taken when at anchor, which I have not laid down, as they may be found in many printed voyages. We were employed on the 18th of August in taking observations off Salvage island; and I think its longitude may be fixed in 18° 13′ west, and its latitude in 30° 8′ 15″ north.

Upon my first arrival at Teneriffe, I employed myself in establishing an observatory on shore. Our instruments were set up there the 22d of August, and we ascertained the rate of our astronomical clocks by correspondent altitudes of the sun or stars, in order,

der, as soon as possible, to verify the motion of the time-keepers belonging to the two frigates. The result of our observations, provided that the error of No. 19 had only been 18″ too slow, since the 13th of July, the last day of our observations at Brest; that our watches, No. 19 and No. 25, had also been too slow; the former 1′ 0″ 7, and the latter no more than 28″: thus in the space of three-and-forty days, the greatest error was but a quarter of a degree of longitude. After some days of uninterrupted observations and comparisons, we established the daily motion of these clocks. M. Dagelet found that No. 19 gained about 2″, 55 in 24 hours; No. 29 about 3″ 6; and No. 25 about 0″ 8. It is upon these principles this astronomer has drawn up the table of their apparent motions, paying due regard to the corrections required by the variations which different temperatures produce, according to the degrees of the thermometer and of the arches of the balance-wheel. M. Dagelet had his doubts on the mode of constructing the table of variation for No. 19, according to the few data furnished by the experiments made at Paris. He thought it would be very advantageous for those who make use of time-keepers, that the number of experiments should be augmented, and fewer terms left uncalculated, in the intermediate steps which he has been obliged to pursue, in order to obtain these data; especially where the arches of the balance would enter into this species of correction, which renders a table by double entry necessary, and leaves a doubt respecting the manner in which the ordinates of the curve should vary. He made experiments on the simple pendulum on the 27th, 28th, and 29th, of August, and observed the number of oscillations in a given time, in order to determine the force with which bodies gravitate in different latitudes. Several observations of latitude and longitude were made at Santa-Cruz, in Teneriffe, which, we think, may be

be fixed at 18° 36′ 30″ west longitude, and 28° 27′ 30″ north latitude. At length we concluded our labours by experiments on the dipping-needle. But we found little agreement in the results, and only mention them to prove how far this instrument still remains from the degree of perfection necessary to procure it the confidence of astronomers. We presume, however, that the quantity of iron with which the soil of Teneriffe is impregnated has greatly contributed to the extraordinary variations we remarked.

On the 30th of August I set sail with the wind blowing fresh from north-north-east. We had taken on board each ship sixty pipes of wine: and were obliged to unstow half our hold, in order to get at the empty casks destined to contain it. This took up ten days; a delay which was, in fact, occasioned by the dilatory conduct of those who supplied us with this wine from Orotava, a small town on the other side of the island.

I have already given an account of the manner in which the astronomers employed their time. Our naturalists also wished to improve theirs while they remained in the road of Santa-Cruz; and therefore set off for the Peak with several officers of both ships. M. de la Martinière collected herbs in his way, and found many curious plants. M. de Lamanon measured the height of the Peak with his barometer, which at the summit of the mountain fell to 18 inches, 4 lines $\frac{3}{10}$: while by an observation made at Santa-Cruz, at the same moment, it was at 28 inches 3 lines. The thermometer which at Santa-Cruz indicated 24 degrees and a half, was, at the top of the Peak, stationary at 9°. I leave every one at liberty to calculate the height; for this method is so loose, that I prefer giving the data without the results*. M. Monneron, Captain of the corps of

* Those who would wish to make the calculations will find the data

Engineers, also made an excursion to the Peak, in order to take its level as far as the sea, which was the only mode of measuring this mountain that had not yet been attempted. Local difficulties, if not absolutely insurmountable, were unable to stop him, as he was extremely conversant in these pursuits. He found that the natural obstacles were much less than his imagination had suggested. For, in one day he had completed every thing in which there was any difficulty. He had reached a kind of plain, very elevated, but easy of access, and in prospect beheld with the greatest joy the termination of his labours, when he experienced, on the part of his guides, difficulties which it was impossible to vanquish. Their mules had not drunk for three days; and neither entreaties nor money could induce their drivers to continue their stay. Thus when he considered his labour almost finished, was M. Monneron obliged to leave imperfect a work which had cost him incredible pains, and considerable expence; for he had been obliged to hire seven mules and eight men to carry his baggage, and assist him in his operations In order, however, not entirely to lose the fruit of his labour, he determined the principal points, and one day more would now be sufficient to complete the level, and afford a conclusion more satisfactory than any hitherto produced by all the different travellers.*

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data here omitted in every work of experimental philosophy. But if they wish to calculate with some degree of accuracy in this method of measuring elevations, at best very liable to error, they should not omit such corrections as relate to the temperature of the air. The difference of the logarithms of the heights of the barometer in lines gives the height in toises at 16 degrees and a quarter of the mercurial thermometer, on which the point of boiling water is 80 degrees. The two hundred and fifteenth part should be substracted for every degree of cold. See De Luc, Enquiries on the Modification of the Atmosphere.—*French Editor.*

* The work of Monneron here announced has not reached our hands.

The Marquis Branciforte, Governor-General of all the Canary islands, and Field Marshal, never ceased to shew us the greatest marks of friendship during our stay.

We were unable to depart before three o'clock in the afternoon of the 30th of August, and were still more encumbered with stores than at our departure from Brest. But these were diminishing every day, and we had nothing but wood and water to procure 'till our arrival at the Islands of the South Sea. With these two articles I intended to provide myself at Trinidad; for I determined not to touch at the Cape de Verd Islands, which at this season are very insalubrious, and the health of the crews was of the first importance. To preserve this I gave orders to fumigate between-decks, and the hammocs to be taken down every day from eight o'clock in the morning 'till sun-set. But that every one might have sufficient time for sleep, the crew was divided into three watches, so that eight hours of rest succeeded to four of labour. Having no more hands

hands. There is reason to believe he had left his operations in such a state as to be prosecuted by any other traveller. I imagine he made use of the water-level, notwithstanding the inconvenience of this instrument on very steep declivities. If his operations had been finished, he would have decided the dispute between those who, measuring the Peak each his own way, have assigned it very different heights.

However defective, however tedious and difficult this mode of measuring heights may be, these inconveniences vanish before one much in the habit of such employments. It is evident it cannot require more than a thousand stations; and supposing, though almost impossible, an error of three lines in each station, that these errors should not be mutually corrected, and that they should be always *plus*, or always *minus*, a thing still less possible; there would at last be an error of only three thousand lines, or 20 feet 10 inches French. This difference, though barely possible, is nothing when compared with that of the various travellers. For Heberdeen ascribes to the Peak a height of 2,409 toises or fathoms; Feuillée (Memoirs of the Academy of Sciences for the year 1746, p. 140) 2,213. Bouguer 2,100, and Verdun, Borda, and Pingré, 1,904.—*French Editor.*

on board than were indispensably necessary, this arrangement could only take place in calm weather; and I have been under the necessity of reverting to the ancient custom when sailing in stormy seas. Nothing remarkable occurred during our passage as far as the line. The trade-winds left us in 14 degrees N. lat. and blew constantly between W. and S.W. 'till we reached the line, and obliged me to run down the coast of Africa, which I did at the distance of 60 leagues.

We crossed the line on the 29th of September, in 18° of W. longitude. I could have wished, as my instructions were, to have passed it more to the westward; but fortunately the wind drove us always to the eastward, otherwise it would have been impossible to have made Trinidad, the wind being S.E. at the line, and continuing there 'till we reached 20° 25′ N. latitude: so that I always kept close to the wind, and was unable to get into the latitude of Trinidad nearer than about 25 leagues to the east of that island. Had I made Pennedo de S. Pedro*, I should have found great difficulty in doubling the eastern point of Brasil. I passed, according to my reckoning, over the shoals, on which the ship Le Prince thought she had touched in 1747. We had no indication of land, except some birds called frigates, which followed us in pretty large flights from the 8th degree of N. to the 3d degree of S. latitude. During all that time our ships were surrounded by tunnies, of which we took but few, they being so large and heavy, that all our fishing lines broke with their weight. Each of those we caught weighed at least sixty pounds.

The dread which some navigators entertain of being, at this season, becalmed under the line, is found-

* To touch at this island was no part of my instructions, it being only suggested as advantageous, if it should not lie out of my track.

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ed in error. We were not a day without wind, and only once had rain; when, indeed, it was so abundant as to fill 25 casks.

The fear of being driven too much to the eastward into the bottom of the gulf of Guinea is equally chimerical. The S. E. wind is soon met with, and even drives ships too rapidly to the westward; so that had I been better acquainted with this navigation, I should have steered away more large with the S. W. wind which constantly prevailed to the N. of the line, and I should then have crossed it in the latitude of 10 degrees. This circumstance would have permitted me to run, with a free wind, on the parallel of Trinadad. A few days after our departure from Teneriffe, we left those serene skies only found in the temperate zones: instead of which, a dull whiteness, between fog and cloud, always prevailed. The horizon was contracted within less than three leagues; but after sun-set the vapour was dissipated, and the nights were constantly fine.

On the 11th of October we took many observations of distances between the sun and moon, in order to ascertain the longitude, and prove the rate of our time-keepers. By the mean result of ten observations taken with quadrants and sextants, we found our longitude 25° 15′ W. That indicated by the time-keeper, No. 19, at three in the afternoon, was 25° 47′. We afterwards repeated the same sort of observations.

On the 12th, about four o'clock in the afternoon, the mean of our observations gave 26° 21′, and at the same moment the time-keeper, No. 19, gave 26° 33′ for the longitude of the ship. On comparison, it appears that the longitude indicated by the time-keeper, No. 19, is 12 minutes more to the W. than that obtained by observation. By these operations we have fixed the longitude of the islands of Martin-Vas and Trinidad. We have also ascer-

tained their latitudes with great exactness, not only by taking the sun's meridian altitude with precision, but also a great number of altitudes near the meridian, and reducing them all to the true time from noon, inferred from corresponding altitudes. The greatest error arising from this method cannot exceed twenty seconds.

On the 16th of October, at ten in the morning, we descried the islands of Martin-Vas five leagues to the N.W. They ought to have been seen in the west, but the currents had driven us 13 miles to the southward in the night. The winds unfortunately having blown, till then, constantly from the S.E. obliged me to make several boards, in order to near those islands, which I passed at about the distance of a league and a half. Having accurately determined their situation, and taken several bearings to enable me to delineate relative positions on the chart, I hauled close to the wind, on the starboard tack, steering for the island of Trinidad, distant from Martin-Vas about nine leagues W. by S. These islands of Martin-Vas are, in fact, mere rocks; the largest of which may perhaps be a quarter of a league in circumference: there are three little islands, separated from each other by small intervals, which, seen from a distance, appear like five heads.

At sun-set I made the island of Trinidad, bearing W. 8° N. The wind being constantly at N.N.W. I passed the night in standing off and on, keeping to the E.S.E. of the island. When day appeared I continued on the land tack, hoping to find smoother water, under shelter of the island. At ten in the morning I was but two leagues and a half from the S.E. point, which bore N.N.W.; and I perceived, at the extremity of the creek formed by that point, a Portuguese flag hoisted in the middle of a small fort, surrounded by five or six wooden houses. The sight of this flag excited my curiosity; and I determined

termined to send a boat on shore to procure intelligence concerning its cession and evacuation by the English. For I already began to perceive, that at the island of Trinidad I could procure neither the wood nor water wanted. A few trees only could be perceived on the summit of the mountains The sea broke every where so violently, that it could not be supposed a boat could easily land. I therefore resolved to beat up with the wind on the beam all day, in order to be at day-break sufficiently to windward to gain the anchorage, or, at least, to send my boat on shore. At night I hailed the Astrolabe to apprize her of my intended manœuvre; and added, that we should observe no order in tacking, as, at sun-rise, the creek of the Portuguese establishment was to be our rendezvous. I instructed M. de Langle, that whichever of our ships should be nearest the shore, should send a boat to ascertain the resources this port might offer. The next morning, October 18th, the Astrolabe being but half a league from shore, sent off her long-boat under the command of M. de Vaujuas the lieutenant, accompanied by M. de la Martinière and Father Receveur, an indefatigable naturalist. They went quite up the creek, between two rocks. But the surf was so great, that the boat and her crew would infallibly have been lost, but for the prompt assistance of the Portuguese, who hauled the boat upon the beach to shelter it from the fury of the sea. Every thing was saved excepting a small anchor. At that station M. de Vaujuas counted about two hundred men, of whom 15 only were in uniform, the rest in their shirts. The governor of this establishment, which being quite uncultivated, is not worthy the name of a colony, told him the governor of Rio Janeiro had, about a year before, caused possession to be taken of the island of Trinidad. He either did not or pretended not to know, that it had been previously in possession of the Eng-

lish; but we cannot depend much on any thing mentioned to M. de Vaujuas in this conversation. The governor, who thought himself under the necessity of disguising the truth on every subject, pretended that his garrison consisted of 400 men, and that his fort was defended by 20 pieces of cannon; though we are certain there was not a single battery in the establishment. This officer so much dreaded our discovering the miserable state of his government, that he would never permit M. de la Martinière and father Receveur to leave the beach in search of plants. After having manifested to M. de Vaujuas every external mark of politeness and good-will, he pressed him to return on board, assuring him the island produced nothing; that supplies of provisions were sent every six months from Rio-Janeiro; that he had scarcely a sufficiency of wood and water for the garrison: and even these he was obliged to procure at a great distance on the mountains. His detachment, however, assisted us in launching our long-boat.

At day-break I sent a boat on shore under the command of lieutenant Boutin, accompanied by Messrs. de Lamanon and Monneron; but I forbad M. Boutin to land, if the Astrolabe's boat had arrived before him: in which case he was to sound the road, and make as accurate a survey as possible in so short a time. Accordingly M. Boutin did not approach within musket-shot of the shore; and in all his soundings he met with a rocky bottom, mixed with a small portion of sand. M. Monneron took a drawing of the fort with as much exactness as if he had been on the beach; and M. de Lamanon was near enough to perceive that the rocks were nothing but basaltes*, or substances that had been in a state of fusion, the remains of some extinguished volcanos.

* A stone of a close texture and brilliant fracture, strikes fire with a flint, and may be used as a touch-stone.

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This opinion was confirmed by father Receveur, who brought on board a great number of stones, all volcanic, as well as some of the sand, which was only found mixed with fragments of shells and coral. As, according to the report of M. Vaujuas, and M. Boutin, it was evident we could not, at the island of Trinidad, get either the wood or water we wanted, I determined immediately to steer for the island of St. Catharine on the coast of Brasil. This was the place where the French ships, bound for the South-sea, used formerly to touch; and at which Frézier and admiral Anson found an abundant supply for all their wants. In order not to lose a single day, I gave St. Catharine's the preference to Rio-Janeiro, where the necessary formalities would have consumed too much time. But, in shaping my course for St. Catharine's, I wished to be assured of the existence of the island of Ascension, which M. Daprès has placed 100 leagues W. of Trinidad, and only 15 miles more to the southward. According to the Journal of M. Poncel de la Haye, who commanded the Renommée, I was certain several navigators, and among others Frézier, a very well informed man, thought they had landed on Ascension island, when, in reality, they had only been on that of Trinidad. Notwithstanding the authority of M. Poncel de la Haye, I conceived this point of geography required fresh illustration. The two days we passed to the southward of Trinidad, enabled us to take bearings from which M. Bernizet delineated the plan of the south-side of the island. It differs but little from that of Doctor Halley, which had been sent me by M. Fleurieu. The view painted by M. Duché de Vancy is so remarkably accurate, that it will alone prevent any navigators that may land on the south side of Trinidad from falling into an error. That island presents to the eye nothing but a rock almost naked and barren; where no verdure, no shrubs, are

seen but in the narrow defiles of the mountains. It is in one of these vallies to the S. E. of the island which is only about 300 toises broad, that the Portuguese have formed their establishment.

Nature had never designed this rock to be inhabited, for it can furnish neither men nor animals with subsistence. But the Portuguese are fearful lest some European nation may avail themselves of its vicinity to establish a smuggling trade with Brazil: and to this motive alone we must ascribe the eagerness they have discovered to seize upon an island, which, in every other point of view, must be a mere burthen.

Latitude of the largest of the Martin-Vas isles, 20° 30′ 35″ south.

Longitude, by lunar observations, 30° 30′ west.

Latitude of the south-east point of the island of Trinidad, 20° 31′ south.

Longitude, by lunar observations, 30° 57′ west.

On the 18th of October, at noon, I stood to the westward for the island of Ascension till the night of the 24th, when I abandoned the search. I had then run 115 leagues west; and the weather was sufficiently clear to see 10 leagues a-head. Thus, I may aver, that having directed my course on the parallel 20° 32′ with a view north and south of, at least, twenty, and having laid-to every night, after the first 60 leagues, when I had run the distance perceived at sun-set—I say, I may aver that the island of Ascension exists not from the meridian of Trinidad to about seven degrees west longitude, between the latitudes of 20° 10′, and 20° 50′, my view having embraced the whole of that space.*

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* La Pérouse may be right in advancing that navigators have erroneously imagined they landed on Ascension Island, while, in fact, they touched at that of Trinadad. Not attending to the resemblance which runs through the former descriptions of these two

On the 25th of October we experienced a most violent storm. At eight in the evening we were surrounded by an horizon of fire; while lightning burst from every part of the heavens. A cone * of fire appeared on the point of the conductor: a phenomenon which was not confined to our ship: for the Astrolabe, not being furnished with a conductor, had also the

two islands, proves that they have committed this error. For, from these charts, they might indifferently suppose they were on the one or the other, their latitude being nearly the same, and their longitude very imperfectly ascertained. But these proofs are not sufficient for the enlightened geographer; whereas the authentic testimony of Daprès, in his *Neptune Oriental*, page 10, and the minute and very different plans which Dalrymple has given of these two islands and appearance, prove, beyond doubt, they are not the same.

Had La Pérouse felt greater confidence in the materials furnished him, he might on this subject have made a very easy calculation.—The W. long. of the north coast of Trinidad, was there fixed at 32° 15′, and he himself found that of the S. E. point no more than 30° 57′.

According to the meridian of Rio-Janeiro, which is fixed at 45° 5′, the coast of America, under this parallel, may be calculated at 43° 30′. Daprès fixes the longitude of Ascension Island at 38°, because he believes it to be 120 leagues from the coast. I have reason to think it still nearer. Hence, it is evident, La Pérouse has not pushed his researches far enough, and that having sailed about seven degrees upon this parallel, after his departure from Trinidad, he abandoned his object at the very moment of its attainment.

To the data of these two authors, so valuable on account of their exactness, whom I have just cited, I shall add, that since writing this note I have accidentally met with a navigator (Lépine, a half-pay lieutenant) who has touched at both these islands, and who, not being provided with instruments, to determine their longitude with precision, has only fixed their latitude.

That of Trinidad at ..... 20° 22′
That of Ascension at ..... 20° 30′

He thinks the latter 120 leagues from the coast of Brazil.

* I am not in the least astonished that a ball of fire should also have rested on the mast-head of the Astrolabe, knowing from the accounts of La Pérouse, that this ship was never out of hail of the Boussole. Every one knows that when the electric fluid enters by a point, it appears as a spart, but in flying off from one has

the same appearance on her mast-head. From that day the weather was constantly foul till our arrival at St. Catharine's; and we were enveloped in a fog thicker than those on the coast of Brittany in the

has the appearance of a luminous cone. The earth is the grand reservoir of electric matter, and water is its best conductor. It appears then that when a low cloud, negatively electrified, passes over a vessel, the masts and yards serve as conductors, and we see conic fire from all the extremities directed towards the cloud.

It is evident that a vessel furnished with a conductor, must have at its point a cone of a much more beautiful appearance, on account of its chain, which has a direct communication with the sea; while without that instrument it only communicates the fluid, by means of tarred wood, which is a very bad conductor.

On the same principle we may sometimes observe electric fire on the surface of the sea, of which the following experiments are a convincing proof, and may be depended on, as I have frequently performed them in my closet.

Electrify a quantity of water in a vase of glass or metal; but, in the latter case, place it upon an insulated stool. Then, in the dark, present your finger to the surface of the water, not close enough to draw sparks, but so as to make the water rise, when a luminous cone will arise in the direction of your finger.

In this experiment the finger produces the effect of a cloud. But it will be said, perhaps, that the sea does not, like the bason, contain a superabundant quantity of electric matter. Should this argument leave any doubt, the following experiment may be made:

Take a metal bason filled with water; let this bason communicate with the earth, by means of a chain or any other conductor; electrify strongly the outside of the Leyden vial, by which the inside will be electrified negatively: place this vial upon an insulated stool, that you may be able to take hold of it by the outside without discharging it. Then present the knob of the bottle at a certain distance from the surface of the water, as you did your finger in the former experiment, and you will produce the same effect.

If in the first experiment, instead of your finger you make use of the knob of the vial electrified *minus*, you will produce a stronger effect, as the electric fluid will make a greater effort to escape from the water when electrified *plus* into the vial, which is electrified *minus*.

This principle once laid down and demonstrated, will develope the theory of electric vapours producing explosion, which are much more frequent than is generally imagined. But this digression, which has no connection with the subject, would lead me too far.—*French Editor.*

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the midst of winter. We cast anchor on the 6th of November, between the island of St. Catharine and the continent, in seven fathoms water, with a bottom of oozy sand. The middle of the island of Alvaredo then bore north-east, Fleming's Island south by east, and the island of Gal north.

Though our voyage had now continued ninety-six days, we had not one man on board sick. The change of climate, the rains and fogs, had produced no effect on the health of the crews. But our provisions were of excellent quality; for I had neglected no precaution that experience or prudence could suggest. We did our utmost to keep up their cheerfulness, and encouraged them to dance every night from eight till ten, whenever the weather would permit.

CHAP. II.

DESCRIPTION OF ST. CATHARINE'S—OBSERVATIONS AND EVENTS DURING OUR STAY—DEPARTURE FROM ST. CATHARINE'S—ARRIVAL AT LA CONCEPTION.

THE island of St. Catharine extends from 27° 19′ 10″, to 27° 49′ south latitude; and its breadth from east to west is not more than two leagues in the narrowest part. It is separated from the continent only by a channel of 200 toises in width. On the point at the mouth of this strait is built the city of Nossa Senhora del Desterro, the capital of this commandery, where the governor resides. It contains, at most, 3000 inhabitants, and about 400 houses; and wears a very agreeable appearance. According to Frézier's account, this island served, in the year 1712, as an asylum for a set of vagabonds, who escaped thither from different parts of Brazil,

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and were but nominally subject to Portugal, as they acknowledged no lawful authority. The country is so fertile that they were able to subsist without any supplies from the neighbouring colonies; and as they were destitute of money, they could neither offer a temptation to the avarice of the governor-general of Brazil, nor inspire him with a hope of subduing them. The vessels which touched there gave them nothing in exchange for provisions but clothes and shirts, of which they were almost destitute. Not till towards the year 1740 did the Court of Lisbon establish a regular government in St. Catharine's, and the parts adjacent on the continent. This government extends from north to south 60 leagues, from the river St. Francisco to Rio-Grande. Its population amounts to 20,000; but I have seen so great a number of children in some families, that I think it will soon be more considerable. The soil is extremely fertile, and produces, almost spontaneously, all sorts of fruits, vegetables and grain. It is covered with trees that are always green; but so intermixed with briars and thorns, that the forests are impassable, without cutting away with the hatchet; besides which they are infested with serpents whose bite is mortal. Their houses, both on the island and continent, are all on the edge of the sea: and the woods, which surround them, yield a most delightful fragrance, from the abundance of orange-trees, and other aromatic plants and shrubs, with which they abound. But, notwithstanding these advantages, the country is very poor, and absolutely destitute of manufactures; insomuch, that the peasants are almost naked, or covered with rags. Their soil, which would be very suitable for the cultivation of sugar, cannot be employed for that purpose without slaves, whom they are not rich enough to purchase. The whale-fishery is very productive, but the crown has conferred an exclusive right to it on a company

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at Lisbon This company has, upon the coast, three great establishments, where they take about 400 whales every year, the produce of which, both in oil and spermaceti, is sent to Lisbon, by way of Rio-Janeiro. Of this fishery the inhabitants are merely spectators, for it yields them no profit; and if the government do not relieve them, and grant them immunities or other encouragements, one of the finest countries on the face of the globe will languish for ever in the depression of poverty, and become useless and burthensome to the mother-country.

The approach of ships to St. Catharine's is very easy. Eighteen leagues in the offing there are 66 fathoms water, over a bottom of soft mud, gradually shoaling till within four cables length of the shore, where there is still four fathoms water.

The ordinary channel is between the island of Alvaredo and the north point of St. Catharine's: but there is another between the islands of Gal and Alvaredo, which however requires yet to be explored. Our boats were so much employed during our stay, that I could not take the soundings. The best anchorage is half a league from Fortress Island, in six fathoms, oozy bottom, the citadel bearing S. 3° W. the fort on the larger point S. 6° E. There are several watering places both on the island and the continent; and that creek may be chosen where the wind renders the landing most easy. This consideration is of great importance; for the navigation of boats is very difficult in this harbour, which is two leagues wide as far as the bight where the town stands: and there is a violent surf always breaking on the lee shore. The tides are very irregular: and the flood comes in between the two channels lying north and south. Up to this bight it rises but three feet.

It appeared that our arrival had spread great terror through

through the whole country. The different forts fired several alarm guns, which determined me to cast anchor early, and send my boat on shore with an officer, to make known our pacific intentions, and our want of water, wood, and refreshments. M. de Pierrevert, whom I employed on this occasion, found the little garrison of the citadel under arms, consisting of 40 soldiers, commanded by a captain, who immediately dispatched an express to the city, to Governor Don Francisco de Baros, Brigadier-General of Infantry. He had been apprised of our expedition by the Lisbon Gazette; and a bronze medallion that I sent him left no doubt respecting our object in touching there. The most precise and speedy orders were issued, that every thing necessary should be furnished us at a fair price: and an officer appointed to each frigate, who was entirely at our command. We sent him with the clerks of the commissary of stores to purchase provisions of the inhabitants. On the 9th of November I removed nearer the fortress, from which I had hitherto been at some distance. I went, the same day, with M. de Langle and several officers, to pay a visit to the commander of this post, who saluted me with 11 discharges of cannon, which were returned by my ship. Next day I sent my boat, under the command of Lieutenant Boutin, to the city of Nossa-Senhora del Desterro, to make my acknowledgements to the Governor for the great abundance his attentions procured us. Messrs. de Monneron, de Lamanon, and the Abbé Mongès, accompanied this officer, together with M. de la Borde Marchainville, and Father Receveur, who had been dispatched by M. de Langle for the same purpose; they were all received with the utmost politeness and cordiality.

Don Francisco de Baros, governor of this commandery, spoke French with perfect ease, and his comprehensive knowledge inspired us with the fullest

fullest confidence. Our friends dined with him, and were informed at dinner, that the supposed island of Ascension had no real existence, although the Governor-General of Brazil had, upon the testimony of M. Daprès, dispatched a vessel the preceding year to survey all the points formerly laid down as parts of that island; and the captain of the vessel having found none of them, it had been expunged from the charts, that an ancient error might not be perpetuated*. He added, that the island of Trinidad had always formed a part of the Portuguese possessions, and that the English had evacuated it on the first requisition of the Queen of Portugal; the English minister adding that the nation had never given its sanction to this establishment, which was no more than a private adventure.

At eleven o'clock the next day, the boats of the Astrolabe and Boussole returned, and announced an early visit from the Major-General of the colony, Don Antonio de Gama, who did not however arrive till the 13th, when he brought me a most obliging letter from the Governor. The season was so far advanced that I had not a moment to lose. Our crews enjoyed the finest health, and I had flattered myself on my arrival that I should provide for all our wants, and be ready to set sail in five or six days. But the southerly winds and the currents were so violent, that all communication with the land was

* It would be injurious to the improvement of navigation, and fatal to navigators, to adopt this method of effacing from our charts, islands formerly discovered, because they have been sought in vain, or their position uncertain, through paucity of the means of laying them down accurately at the period of their discovery.

I ought to oppose this method the more earnestly, as I have proved the existence of Ascension island. In thus effacing islands from the globe, we become, in some measure, responsible for the dangers incurred by navigators when they fall in with them, lulled into security by their charts; whereas, if laid down, though uncertain, yet by rousing the attention of the navigator, they may assist him more easily to find them.—*French Editor.*

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frequently interrupted; a circumstance which retarded my departure.

I had chosen St. Catharine's in preference to Rio-Janeiro, merely to avoid the ceremonious formalities of great cities, which always occasion a loss of time. But experience taught me that this harbour united several advantages. Provisions of every kind were extremely plentiful; a large ox cost eight piastres, a hog of 150 lb. weight cost four, and turkeys were sold for a piastre the pair. We had only to throw the net in order to draw it up full of fish. Oranges were brought on board and sold to us at the rate of 500 for less than half a piastre, and vegetables were also very reasonable. The following fact will give some idea of the hospitality of this good people. My boat having been overset by the surf, in a creek where the crew were cutting wood, the inhabitants who assisted in saving it, obliged our sailors who had been cast away, to go into their beds; sleeping themselves on matts in the middle of the room which was the scene of this affecting hospitality. A few days after, they brought on board the sails and masts of the boat with its grapnel and flag, objects of great value in their estimation, and which would have proved of the utmost utility in their canoes. This people are good, obliging, and of gentle manners; but they are very superstitious, and jealous of their wives, who never appear in public.

Our officers shot many birds of most brilliant plumage, among others a rollier, a bird of a remarkably fine blue; which, though not described by Buffon, is very common in this country.

Not having foreseen the obstacles which detained us twelve days in the road, we did not land our astronomical clocks, supposing we should not lie at anchor more than five or six days; a circumstance which, however, caused but little regret, as the sky was constantly cloudy. We therefore determined the

the longitude of this island by the moon's distance from the sun, and according to our observations, the most north-easterly point in St. Catharine's, may be fixed in 49° 49′ W. longitude, and 27° 19′ S. latitude.

On the evening of the 16th, every thing being on board, I sent my packets to the Governor, who had undertaken to send them to Lisbon, where I addressed them to M. de Saint-Marc, our Consul-general; every one being permitted to write to his family and friends. We flattered ourselves with setting sail the next day, but the north wind, which would have been so favourable to us had we been out at sea, detained us in the bottom of the bay till the 19th of November. I then weighed at break of day, but the calm obliging me to cast anchor again for some hours, I did not clear all the islands till night.

We had purchased at St. Catharine's oxen, hogs, and poultry sufficient for the ship's crew for more than a month, and had added some orange and lemon trees to our collection, which, ever since our departure from Brest, had been well preserved in cases made at Paris under the eye and direction of M. Thouin. Our gardener was also furnished with the seeds of oranges and lemons, grains of rice, maize and cotton, and in general every species of esculent plant, of which navigators have described the inhabitants of the South Sea to be destitute, and which are more analogous to their climate and mode of living than the pot-herbs of France, of which we also carried an immense quantity of seeds.

The day of my departure I sent to the Astrolabe new signals of much greater extent than those we had hitherto used. We were going to navigate in the midst of fogs, and in the most stormy seas; circumstances which required additional precautions. It was also agreed with M. de Langle, that in case

of separation our first rendezvous should be Port Success, in the Straits of Le Maire, supposing us not to have already passed beyond its latitude by the 1st of January, and the second, Venus Point, in the island of Otaheite. I further informed him, that I should limit my researches in the Atlantic Ocean to l'Isle Grande de la Roche, having no longer time to seek a passage to the southward of the Sandwich islands. I then regretted extremely that I could not begin my researches to the eastward; but I did not dare to pursue a measure so contrary to the plan adopted in France, because in that case I could no where have received the Minister's letters which had been announced to me, and which might contain the most important instructions.

The weather was very fine till the 28th, when it blew a very heavy gale from the east, for the first time since our departure from France; and I saw with infinite pleasure that if our ships sailed very badly, they behaved very well in foul weather, and would be able to withstand the rough seas we had to encounter. We were then in 35° 4′ south latitude, and 48° 40′ west longitude: I steered E.S.E. because I proposed in my search after l'Isle Grande to get into its latitude ten degrees to the eastward of the place assigned it in the different charts. I did not shut my eyes to the extreme difficulties I should have to struggle with; but, in all events, I was under the necessity of running very far to the westward in order to reach the Straits of Le Maire; and all the way I should make on that point of the compass, pursuing the parallel of l'Isle Grande, brought me nearer the coast of Patagonia, the soundings of which I was obliged to take before I doubled Cape Horn. The latitude of l'Isle Grande not being perfectly determined, it was more probable I should meet with it in plying between 44° and 45° of latitude than if I steered a direct course in 44° 30′, as I might do in

in sailing from west to east, the wind blowing as constantly from the west in these latitudes as from the east between the tropics.

It will presently be perceived that I derived no advantages from these considerations, and that after 40 days fruitless research, during which I met with five heavy gales of wind, I was obliged to direct my course for my ulterior destination.

On the 7th of December I was on the pretended parallel of l'Isle Grande in 44° 38′ S. latitude, and 34° W. longitude, according to a lunar observation taken the preceding day, when we saw a species of the sea-weed called goémon pass us, and were for many days surrounded with birds of the albatross and petrel kind, which never approach the land but in the season for laying.

These feeble indicia of land, however, kept our hopes alive, and reconciled us to the dreadful seas we were navigating. But I was not without disquietude when I considered that I had 35° to run back to the westward, as far as the Straits of Le Maire, which it was of great importance to reach before the end of January.

I kept plying between 44° and 45° S. latitude, till the 24th of December, and ran down 15° of longitude on this parallel, and in the 27th of December abandoned my attempt, being convinced the island of La Roche had no existence*, and that the goémon and petrels by no means prove the vicinity of land, since I met with sea-weeds and birds till I made the coast of Patagonia. The chart on which our daily run is traced will exhibit the track I followed

* If l'Isle Grande de la Roche could have been placed in the maps with more certainty, La Pérouse, in traversing the parallel assigned him, might have been assured that it did not exist. But as its position has never been exactly determined, on account of the defective journals of Anthony de la Roche, and Vespucius Americanus, the researches of La Pérouse only prove that it does not exist in the position indicated.—*French Editor.*

much more clearly than these details, and I am convinced that navigators who may succeed me in this research will not be more fortunate than myself: but they ought not to pursue this course except when they are steering E. towards the Indian Ocean, where it is not more difficult or more tedious to run 30° on this parallel than on any other; and if they find no land they will at least have pursued a course approaching the object. I am persuaded l'Isle Grande, like that of Pepis, has merely a chimerical existence*, and that the report of La Roche, who pretended to have seen great trees there, is void of all probability. It is very certain that in 45° nothing but shrubs can be found upon an island placed in the midst of the southern ocean, since not a single large tree is to be found on the islands of Tristan d'Acunha, a latitude infinitely more favourable to vegetation.

On the 25th of December, the wind settled in the S. W. quarter, and continued there several days, which obliged me to steer W N.W. and quit the parallel I had constantly followed during 20 days. As I had then passed the point assigned in all the maps to l'Isle Grande de la Roche, and the season was far advanced, I determined to steer that course which would most accelerate my progress to the westward, much fearing lest I should be exposed to double Cape Horn in the stormy season. But the weather was more favourable than I hoped. The heavy gales ceased with the month of December, and the month of January was nearly as pleasant as that of

* I know that New Georgia, as mentioned in the Journal of La Roche, has again been found, but I am much in doubt whether we ought to ascribe to him the honour of this discovery. According to his Journal there is a strait of ten leagues between the Isle of Birds and Georgia, while in reality this strait is not more than one league; a mistake too great for the most inexperienced mariner to make, had he been speaking of the same place. It is however from the former place the departure should be taken, in order to place l'Isle Grande between 43° and 54° of longitude, for I have crossed every meridian from 35° to 50° without discovering it.

July

July on the coasts of Europe. The wind only blew from the N.W. and S.W. But we were able to carry all our sails; and these changes of the wind were always so distinctly announced by the appearance of the sky, that we were certain of the moment when the wind was going so shift, and were thereby enabled to run on the most advantageous tack. The moment the horizon became hazy, and the sky cloudy, the S.W. wind shifted to the west, and two hours afterwards it came round to the N. W.: on the contrary, when the haziness disappeared we were sure the wind would not be long before it came round by the W. to the S W. I do not believe that during 66 days sailing the wind veered from N. to S. by the E. more than 18 hours.

We had some days of calm weather, with a smooth sea, during which the officers of both frigates formed shooting parties in the boat, and killed a considerable quantity of fowls with which we were almost always surrounded. This sport, which was generally productive, procured fresh provisions for the crew, and it often happened that we killed a sufficient quantity to make a general distribution. The sailors not only preferred them to salt meat, but I believe they contributed infinitely more to keep them in good health.

In our different excursions we killed nothing but albatrosses of the large and small kind, with four varieties of petrels. These birds when skinned and highly seasoned were nearly as good as the wild ducks eaten in Europe. They have been well described by the naturalists who accompanied Captain Cook, and are the same as those of which Messrs. Banks, Solander, and Forster have given the most satisfactory descriptions.

At length on the 14th of January we came into the soundings of Patagonia, in 47° 50′ S. latitude, and 64° 37′ W. longitude, according to our last

lunar observations, for which we never suffered any opportunity to escape when the weather was favourable. The officers of the ship were so accustomed to it, and seconded M. Dagelet so assiduously, that I do not believe our greatest error in longitude could exceed half a degree.

On the 21st we made Cape Fair-Weather, on the north point of the river Gallegos, on the coast of Patagonia, being three leagues from the land in 41 fathoms water, over a bottom of small clayey stones about the size of peas. Our longitude determined at noon, differed from the chart in Cook's second voyage only 15′, which we were more to the eastward. We sailed along the coast of Patagonia at a distance of between three and five leagues from shore.

On the 22d at noon we set Virgin's Cape, bearing four leagues west. This land is low and without verdure. The view of it given by the editor of Admiral Anson's Voyage appeared to me very exact, and its position is determined with perfect accuracy in the chart of Cook's second voyage.

The soundings as far as Virgin's Cape always bring up soft mud, or those small stones mixed with ooze, which are generally found in a line with the mouths of rivers. But on the coast of Terra del Fuego we had always a rocky bottom, and only from 24 to 30 fathoms water, though at the distance of three leagues from the land, which makes me think this coast is not so bold as that of Patagonia.

The charts of Captain Cook have determined with the most perfect accuracy the latitude and longitude of the different capes of this coast.

The bearings of the coasts are delineated from exact surveys, but the minutiæ, in which consists the security of navigation, have not been attended to with sufficient care. Neither Captain Cook nor any other navigator can answer for more than the tracks

tracks they have followed, and the soundings they have taken; and it is possible that in smooth water they may have passed by banks and shoals, which did not then break, so that this navigation requires infinitely more caution than that of our European continents.

I have entered into these particulars with a view to point out the degree of confidence to be placed in these sort of charts, doubtless the most accurate that can be constructed in a rapid passage over a great extent of sea. It was impossible for the old navigators, before the method of taking lunar observations, to approach this degree of precision, which is such, that within 20 minutes, I can rely upon the points we have verified, as fully as on the longitude of the observatories of London and Paris.

On the 25th, at two o'clock, I had Cape St. Diego bearing south one league, that being the western point of the Straits of Le Maire. I had since the morning kept at that distance from the shore, and followed on Captain Cook's chart the bay where Mr. Banks landed in search of plants, while the Resolution waited for him under sail.

The weather was so favourable that it was impossible for me to shew the same compliance to our naturalists. At three o'clock I entered the strait, having doubled point St. Diego at the distance of about ½ of a league, where there are breakers which I believe do not extend more than a mile: but, having observed the sea to break more in the offing, I steered S.E. that I might increase my distance from the breakers. I soon perceived this appearance was occasioned by the currents, and that the reefs of Cape St. Diego were at a considerable distance.

As it blew fresh from the northward, and it was in my power to approach Terra del Fuego, I ran along it half a league from the shore. The wind was so favourable, and the season so far advanced, that I determined

immediately to give up the idea of touching at Success Bay, and endeavour to double Cape Horn. I considered that it was impossible to provide every thing I wanted in less than ten or twelve days, and that this time had been absolutely necessary at St. Catharine's; because, in these open bays where the sea breaks with violence on the shore, for half the day boats cannot land. If to these inconveniences were added the south winds, which might have for some time detained me in Success Bay, the favourable season would elapse, and I should expose my ship to dangers, and my crew to fatigues, very prejudicial to the success of the expedition.

These considerations determined me to steer for the island of Juan Fernandez, which lay in my course, and where I could procure wood and water, with some refreshments far superior to the penguins of the Strait. At this time I had not one sick man on board. Fourscore casks of water remained unbroached, and Terra del Fuego has been so often visited and described, that I could not flatter myself with adding to what had been already said of it.

During our passage through the strait of le Maire, the savages, according to custom, kindled great fires to induce us to anchor. We observed one on the north point of Success Bay, and another on the north point of Valentine's Bay. I am persuaded, with Captain Cook, that ships may anchor indifferently in all these bays. There is plenty of wood and water, but doubtless less game than at Christmas Harbour, on account of the savages who frequent them great part of the year.

While navigating this strait about half a league from Terra del Fuego, we were surrounded by whales, who, it is evident, had never been disturbed, for our ships did not at all alarm them. They swam majestically within pistol shot of us, and will remain sovereigns of these seas, till fishermen wage

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on them the same war as the adventurers of Greenland do in the north. There is not, perhaps, a better spot on all the globe for this fishery. Vessels would find anchorage in excellent bays, abounding in wood and water, as well as some antiscorbutic herbs and sea-fowl, and their boats, without quitting them more than a league, might take all the whales they wanted to complete their cargoes. Their only inconvenience would be the length of the voyage, which would require nearly five months for the passage out, and the same home; and, I believe, these latitudes can only be frequented during the months of December, January, and February.

We were unable to make any observations respecting the current of the Straits, for we entered them at three o'clock in the afternoon, when the moon was 24 days old, and they carried us with violence to the southward till five, when the tide changed. But as we had a fresh breeze from the north, we stemmed it with ease. The horizon was so foggy towards the east, that we had not perceived Staten Island; from which, however, we could not be five leagues distant, that being the whole breadth of the Strait. But we had passed so near Terra del Fuego, that we observed with our telescope some savages lighting great fires, their only means of communicating their desire of inviting vessels on shore. Another motive yet more powerful, determined me to abandon my design of putting into Success Bay. For I had been a long time forming a new plan, on which I could not determine till after I had passed Cape Horn.

My design was to go to the N. W. coast of America that year; a route which, although I had received no such instructions, I knew had only been suppressed through fear that I should not have time to perform so long a voyage before winter: for this plan would otherwise have united a great number of advantages. In that case I should pursue a

new

new route, and cross latitudes, where I might possibly discover many unknown islands. I should also visit much sooner all the places of my destination, for which a stay of two years had been allotted in the northern, and two in the southern hemisphere, my instructions expressly permitting me to execute his Majesty's commission in the manner which should appear to promise most success to the expedition; for the final adoption of my plan, therefore, I only waited to know at what time I should arrive in the South Sea.

I doubled Cape Horn with much greater facility than I expected: though I am now convinced that this navigation is not more hazardous than any other in these high latitudes. The dangers we dreaded were only the chimerical offspring of an ancient prejudice, which ought no longer to exist, and which the reading of Anson's voyages contributes not a little to support among navigators.

On the 9th of February I was off the mouth of the Straits of Magellan, in the South Sea, steering for Juan Fernandez. By my reckoning I had passed over the supposed situation of the land which Drake pretended to have discovered; but I lost little time in search of it, being convinced it did not exist. Since my departure from Europe, the tracks of the ancient navigators had occupied all my thoughts. But their Journals are generally so ill compiled, as to afford little more than hints and conjectures; and those geographers who are not seamen, are generally ignorant of these matters, and unable to investigate, with critical accuracy, accounts which require a strict and distrustful examination. Consequently they have laid down islands which never existed but in charts, and, being mere phantoms of the imagination, soon disappeared before our modern navigators.

In 1578, five days after his departure from the Straits of Magellan, Admiral Drake met with very heavy

heavy gales of wind in the great southern ocean, which continued near a month. It is difficult to follow him on his various courses, but at length he touched at an island in 57° S. latitude, where he landed and remarked great flights of birds. Then, running to the northward for the space of 20 leagues; he fell in with other islands inhabited by savages possessed of canoes. These islands produce wood and antiscorbutic plants. Who but would recognize, from this description, Terra del Fuego on which Drake landed; and, probably, on the island of Diego Ramires, which lies nearly in the latitude of Drake's pretended island? At that time Terra del Fuego was unknown. Le Maire and Schouten had not discovered the strait which is named after them, till 1616.; and the general opinion before that time had always been, that there existed in the southern, as well as in the northern hemisphere, a continent which extended to the neighbourhood of the poles. The southern part of America was thought to be intersected by straits, one of which, like Magellan, they supposed they had discovered. These erroneous ideas were calculated to mislead Admiral Drake, who was carried by the currents 12 or 15 degrees to the eastward of his reckoning, as it has happened since to a great number of other navigators in the same latitudes. This opinion, so probable in itself, amounts to a certainty, when we reflect that a ship of the same squadron which had stretched to the northward, while the Commodore stood to the southward, re-entered the Straits of Magellan which it had just quitted: an evident proof that it had made no way to the westward, and that Admiral Drake had not passed beyond the longitude of America. We may add, that it is extremely improbable that an island so far from the continent, and in 57° latitude, should be covered with trees, when none are to be found on Falkland's Islands, which are situated only in 53°; that neither

ther on these last, nor on Staten Island, which is separated from the continent by a strait of only five leagues wide, is there a single inhabitant; and, lastly, the description which Drake gives of the savages, their boats, trees and plants, suits the Pecherais so well, and in general coincides so exactly with every other account of Terra del Fuego, that I am unable to conjecture why Drake's Island still preserves its place on the maps.

The W.S.W. winds, therefore, being favourable for my getting to the northward, I did not suffer time so precious to be lost in this vain research, but continued my route to Juan Fernandez. But on examining my stock of provisions, I found we had very little bread and flour, having been obliged, as well as M. de Langle, to leave 400 quarters at Brest for want of stowage. The worms also had got into the biscuit; not that they had rendered it uneatable, but had reduced the quantity about a fifth. On these considerations I preferred Conception Bay to the island of Juan Fernandez, well knowing that part of Chili to abound in grain, which was cheaper there than in any part of Europe, and that I should there find all other provisions in plenty, and at the most reasonable price. I therefore shaped my course somewhat more to the eastward.

The 22d, in the evening, I made the island of Mocha, which is about 50 leagues to the south of La Conception. Fearing I should be carried by the currents too much to the northward, I had been induced to haul in for land; a precaution which I now think was needless, it being sufficient to get into the latitude of the island of Santa Maria, which it is necessary to make, taking care however not to approach it nearer than about three leagues, on account of the sunken rocks that extend very far out from the north-west point of the island.

When that point is doubled you may range along the

the land, there being no longer any hidden danger, except within a small distance of the shore. At the same time you are in sight of the Mamelles de Biobio, two mountains of which the name indicates the shape. It is necessary to steer a little to the northward of the Mamelles for the point of Talcaguana. This promontory forms the western limit of Conception Bay, which extends about three leagues from east to west, and as many in depth from north to south. But the mouth of the bay is contracted by the island of Quiquirina, which is situated in the middle and forms two entrances. Of these the eastern passage is the safest and most frequented, being about a league broad; whereas that to the west, between the island of Quiquirina and the point of Talcaguana does not exceed a quarter of a league, and is full of rocks, through which a passage ought not to be attempted without a very skilful pilot.

Soundings are found upon the coast from the island of Santa Maria to the entrance of Conception Bay. Three leagues in the offing we found 70 fathoms water over a bottom of black mud; and 30 fathoms in the bay, in the direction of E. and W. From the north point of the island of Quiquirina the soundings gradually decreased to seven fathoms within two musket-shots of the land. There is excellent anchorage in all parts of the bay, but there is no shelter from the north winds except off the village of Talcaguana.

We doubled the point of the island of Quiquirina at two in the afternoon, but the south winds which had hitherto been so much in our favour were now become contrary. We therefore made several boards, taking care to keep our lead going. We looked for the town of Conception with our telescopes, which from the chart of Frézier we knew must lie to the south-east, and in the bottom of the bay, but could not

not discover it. At five in the evening, pilots came on board, who informed us, that town had been destroyed by an earthquake in 1751, and did not then exist; and that the new town had been built on the river Biobio, three leagues distant from the sea. From these pilots we also learnt, that our arrival was expected at La Conception, letters from the Spanish Minister having already reached them. We continued working to windward, to approach the bottom of the bay; and at nine P.M. we anchored in nine fathoms water, about a league to the N.E. of the anchorage of Talcaguana, whither we were to remove in the morning.

About ten o'clock that evening, M. Postigo, a captain in the Spanish navy, came on board my ship, with a message from the commandant of La Conception. He slept on board, and, at day-break, departed, to give an account of his mission, having first suggested to the pilot we had taken on board, the most convenient place for us to anchor. Before he took horse, however, he sent us some fresh provisions, fruits, and pulse in greater abundance than was necessary even for the whole crew, whose healthful appearance seemed to excite his surprise. No vessel perhaps had ever doubled Cape Horn, and arrived at Chili, without having several sick on board, and there was not one in either of our ships.

At seven in the morning we weighed, and being towed in by our boats, we dropped anchor in the creek of Talcaguana, at 11 A.M. on the 24th of February, in seven fathoms water, over a bottom of black mud, the middle of the village of Talcaguana bearing S. 21° W., Fort St. Angustin S., and Fort Galves near our watering place N.W. 3° W.

Since our arrival on the coast of Chili, we had every day taken lunar observations. Our longitudes differed very little from those laid down by Don George Juan. But as we had reason to believe our

our present method of taking them very superior to that made use of in 1744, we shall lay down the northernmost point of the island of Santa Maria, in 37° 1′ S. lat. and 75° 55′ 45″ W. long. and the middle of the village of Talcaguana in 36° 42′ 21″ S. lat. and 75° 20′ W. long. according to the observations made by M. Dagelet from our astronomical tents, erected by the sea side.

The plan delineated by Don George Juan is made with so much accuracy, that we had only to verify it; but Mr. Bernizet, our geographical engineer, added a part of the course of the river Biobio, in order to shew the situation of the new town, and the road leading to it.

CHAP. III.

DESCRIPTION OF CONCEPTION BAY—MANNERS AND CUSTOMS OF THE INHABITANTS—DEPARTURE FROM TALCAGUANA—ARRIVAL AT EASTER ISLAND.

THE bay of Conception, is one of the most commodious that can be found in any part of the world. For though the tide rises six feet three inches, the water is smooth, and there is scarcely any current. It is high water here at the full and change of the moon, at 45 minutes past one. The bay is open only to the north winds, which never blow but in the winter—that is, from the end of May to October. In this season also the rains fall, and continue throughout the monsoon, for so we may denominate constant winds, which are succeeded by others from the south, that continue to blow for the rest of the year, and are accompanied with fine weather. The only anchorage, sheltered from the N.E. winds, in the winter, is before the village of Talcaguana, on the south-west side.

At

At present there is no other Spanish settlement in this bay, the ancient town of Conception, as I have already mentioned, having been destroyed by an earthquake in 1751. It then stood at the mouth of the river St. Pierre, on the east of Talcaguana, and its ruins are still to be seen, though unlike the remains of ancient magnificence in the other hemisphere. Their duration will be short, the buildings of this country being only of clay, or bricks baked in the sun, and the roofs covered with scallop tiles, as in the southernmost provinces of France.

After the destruction of this town, which, during the earthquake, was rather swallowed up by the sea than by the land, the inhabitants dispersed, and encamped in the environs. It was not till 1763 that they made choice of another spot, situated about a quarter of a league from the river Biobio, and three leagues from the ancient town of Conception, and the village of Talcaguana. On this spot they built a new town, to which the bishopric, the cathedral, and the religious houses were transferred. The houses consisting but of one story, that they may be the better able to resist the shock of earthquakes, which occur in these parts almost every year; this town occupies a great extent of ground.

The inhabitants are about 10,000; and here is the residence of the bishop and a colonel of horse, who is the military governor. The bishoprick is nominally bounded on the north by that of Sant-Jago, the capital of Chili, where the governor general resides; and on the east by the Cordilleras, and extending on the south as far as the Straits of Magellan. But its true limit is the river Biobio, about a quarter of a league from the town. All the country to the south of that river, with the exception of the isle of Chiloe, and a small circle round Baldivia belongs to the Indians, who cannot be deemed subjects of the Spaniards, with whom they are continually at war

war, which renders the Spaniſh governor's office at once difficult and important. To him is entruſted the command of the militia of the country as well as the regular troops, from which he derives a great influence over the inhabitants, whoſe civil governor is the corregidor. The defence of the country alſo reſts ſolely with him, ſo that between war and negotion he finds inceſſant employ. A new adminiſtration is now forming, which perhaps will differ little from that of our colonies, and the authority will be divided between the governor and the intendant. In the Spaniſh colonies it ſhould be obſerved, there is no ſupreme council; thoſe who are inveſted with the king's authority are alſo, with ſome legal aſſiſtants, the judges in all civil actions. Hence it is obvious, that juſtice being adminiſtered by officers of unequal rank, the opinion of the ſuperior draws with it that of his inferiors. He therefore is, in fact, the ſole judge; and to expect that great miſchiefs will not enſue from ſuch an adminiſtration, is to ſuppoſe him endowed with unuſual talents, and ſuperior to all paſſion and prejudice.

The whole world does not afford a more fertile ſpot than this part of Chili. Corn produces ſixty fold, and the vine is equally abundant, the fields are covered with innumerable flocks, which, without requiring any care, multiply beyond all calculation. The only care neceſſary is to keep ſeparate the different property of individuals; and oxen, horſes, mules and ſheep herd together in the ſame encloſures. A large ox is ordinarily worth eight dollars, a ſheep three quarters of a dollar; but there are no purchaſers, and the inhabitants kill every year a great quantity of cattle, the ſkins and tallow of which are ſent to Lima. They alſo cure ſome proviſions for the conſumption of the ſmall coaſting veſſels which navigate the ſouth ſeas.

No diſeaſe ſeems peculiar to this country, but

there is one very common that I ſhall not name, which thoſe who are ſo fortunate as to eſcape often live to a great age; for at La Conception I met with ſeveral who had attained an hundred years.

Notwithſtanding ſo many advantages, this colony is far from making the progreſs which might have been expected from a ſituation the moſt favourable to great population, but the influence of the government is in conſtant oppoſition to that of the climate. The ſyſtem of prohibition exiſts at Chili in its fulleſt extent. This kingdom, of which the productions would, if increaſed to their maximum, ſupply all Europe; whoſe wool would be ſufficient for the manufactures of France and England, and whoſe herds, converted into ſalt proviſion, would produce a vaſt revenue—this kingdom, alas! has no commerce! Four or five ſmall veſſels bring every year from Lima, tobacco, ſugar, and ſome articles of European manufacture, which the miſerable inhabitants can obtain only at ſecond or third hand, after they have been charged with heavy cuſtoms at Cadiz, at Lima, and laſtly at their arrival at Chili; in exchange they give their tallow, hides, ſome deals, and their wheat, which, however, is at ſo low a price, that the cultivator has no inducement to extend his tillage. Thus the balance of trade is always againſt Chili, which, with all its gold * and articles of exchange, can ſcarely purchaſe ſugars, tobacco, ſtuffs, linens, cambrics, and even the hardwares neceſſary to the ordinary wants of life.

From this very conciſe deſcription, it is evident, that if Spain does not change her ſyſtem; if the freedom of commerce is not permitted; if the du-

* According to the accounts which have been tranſmitted to me, the gold which they procure annually in the archbiſhoprick of Conception cannot be eſtimated at more than 200,000 piaſters. A plantation at St. Domingo affords a revenue full as large.

ties

ties on foreign manufactures are not reduced: in ſhort, if they loſe ſight of the political axiom, that a very ſmall taxation, on an immenſe conſumption, is far more productive to the treaſury, than a duty ſo heavy as to annihilate the conſumption itſelf, the kingdom of Chili will never attain that flouriſhing condition which its happy ſituation appears to promiſe.

Unfortunately for this country it produces a ſmall quantity of gold, and the beds of almoſt all the rivers are enriched with that metal. The inhabitant may gain half a dollar a day merely by waſhing the ſoil; but, as proviſions are extremely abundant, want does not excite him to labour. Deprived of all communication with foreigners, he is equally ignorant of our arts and luxury, and can feel no deſires for them, ſufficiently ſtrong, to overcome his inactivity. The land, therefore, remains uncleared, and the moſt active are thoſe who ſpend a few hours in waſhing the ſand of the river; an occupation ſo eaſy, that it becomes unneceſſary for them to learn any trade. Thus the houſes of the moſt opulent are almoſt deſtitute of furniture, and the only workmen of La Conception are foreigners.

The dreſs of the women conſiſts in a plaited petticoat, of thoſe ancient gold and ſilver ſtuffs formerly manufactured at Lyons. Theſe petticoats, which are reſerved for grand occaſions, are tranſferred, like jewels, to the different individuals of a family, and paſs from grand-mother to grand-daughter. Such ornaments, however, are only within the reach of a few, and the reſt have ſcarcely clothes to cover their nakedneſs.

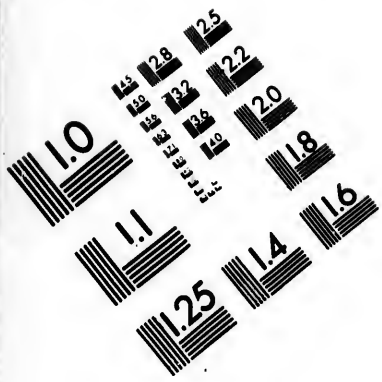
It is the idleneſs, rather than the credulity or ſuperſtition, of the inhabitants, which has filled this kingdom with convents, both for men and women. The former enjoy much more liberty than in any other country; and the misfortune of having nothing

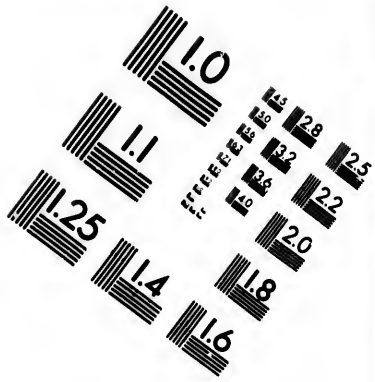
to do, of belonging to no family, and being condemned to celibacy, yet without ſeparation from the world, or confinement to their cells, unavoidably renders them the worſt members of ſociety in America. Their effrontery cannot be expreſſed. I have ſeen them remain at a ball till midnight, ſeparated, it is true, from the company, and placed among the ſervants. No one gave more exact information to our young people concerning places which prieſts ſhould know, only to interdict them.

The inhabitants of La Conception are much addicted to theft, and the women are extremely complaiſant. They are, however, but a degenerate race, mixed with Indians: yet the inhabitants of the firſt rank, the true Spaniards, are extremely polite and obliging. I ſhould be guilty of groſs ingratitude, if I did not paint them in their true colours. I ſhall endeavour to do it, by relating the hiſtory of our viſit.

I had ſcarce anchored before the village of Talcaguana, when a dragoon brought me a letter from M. Quexada, who was governor, *pro tempore*, and aſſured me we ſhould be received as fellow countrymen; adding, with the moſt perfect politeneſs, that the orders he had received on this occaſion, were exactly in uniſon with the ſentiments of his heart, and of all the inhabitants of La Conception. This letter was accompanied with all kinds of refreſhments, which every one was anxious to preſent us; but we could not conſume ſo many objects, and we ſcarcely knew even where to place them.

Being obliged to devote my firſt attention to the refitting of my ſhip, and getting up our aſtronomical clocks and quadrants on ſhore, I could not immediately make my acknowledgments to the governor, though I waited with impatience the moment when I might diſcharge that duty. He, however, prevented me by coming on board, attended by the





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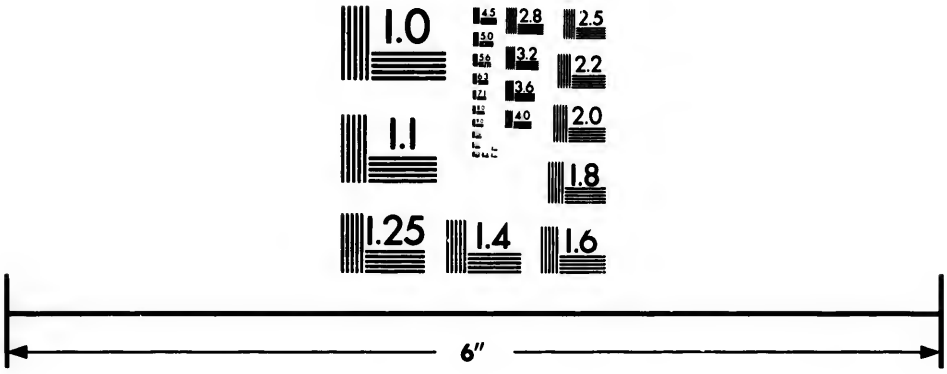

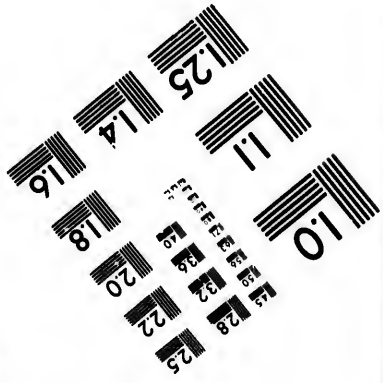

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principal officers of the colony. I returned the visit
day accompanied by M. de Langle, and several
and passengers. We were preceded by a de-
of dragoons, the governor having quarter-
which, as well as
since our arrival.
commandant of artillery,
a league from La
M. Sabatero's
and at night
the principal ladies of the

of these ladies was very different
those with which we had been acquainted. A
petticoat discovering half the leg, and fastened
way below the waist; striped stockings of
and white; shoes so short, that the toes are
over another, and the foot thus made
the dress of the ladies of Chili. Their
without powder, and divided into small toupees
, which fall down on their shoulders. Their
are usually of gold or silver stuff, and are
with two mantillas or cloaks, the first of
the second, or uppermost, of woollen cloth
colours, as yellow, blue, or rose. These
mantillas cover the heads of the ladies when
walk in the streets, and in cold weather; but
their houses they lay them in their lap; and they
a play of the mantilla, constantly placing and
ing it on their knees, in which the ladies of La
are eminently graceful. They are in ge-
pretty, and so amiably polite, that there is cer-
no maritime city in Europe where foreign na-
would be received in a manner so engaging
attentive.

ball concluded about midnight. Mr. Saba-
's house not being capable of accommodating all
officers and passengers, each inhabitant kindly

offered them a bed, and we were thus divided into the different quarters of the city.

Before dinner we had viſited the principal inhabitants; and, in particular, the biſhop, who was a man of intelligence, of amiable manners, and that exemplary charity ſo frequent among the Spaniſh biſhops. He is a Creole of Peru, has never been in Europe, and owes his elevation to his virtues. He expreſſed to us the regret Mr. Higgins, a colonel of horſe, would feel, from having been detained by the Indians during our ſhort ſtay within his government. The praiſes every one beſtowed on that officer, and the general eſteem for him, made me regret that circumſtances prevented our ſeeing him. A courier, however, was ſent to him, and his anſwer, which arrived before our departure, announced a ſpeedy return; for he had juſt concluded a peace with the Indians glorious to his adminiſtration, and particularly neceſſary to the people under his government, whoſe diſtant dwellings are expoſed to the depredations of theſe ſavages, who maſſacre the men and children, and carry the women into captivity.

The Indians of Chili are no longer thoſe ancient Americans whom the arms of Europeans inſpired with terror. The vaſt multiplication of horſes ſpread over the immenſe deſerts of America, and that of cattle and ſheep, which are alſo extremely numerous, have made Arabians of theſe people; and we may, in all reſpects, compare them with the inhabitants of the deſarts of Arabia itſelf. Conſtantly on horſeback, to them journeys of 200 leagues are mere excurſions. They travel with their flocks, feed on their fleſh, their milk, and ſometimes on their blood *; and they cover themſelves with their ſkins, with which they make caſques, cuiraſſes, and ſhields. Thus has the introduction of two domeſtic animals in

* I have been aſſured, they ſometimes open the veins of their cattle and horſes, in order to drink their blood.

America,

America, produced the moſt ſtriking effect on the manners of all its inhabitants, from St. Jago to the ſtreights of Magellan. They now no longer follow any of their ancient cuſtoms, no longer feed on the ſame fruits, no longer wear the ſame cloathing, and have a much ſtronger reſemblance to the Tartars, or the inhabitants of the borders of the Red Sea than to their own anceſtors, who lived two centuries ago.

It is eaſy to conceive how dangerous ſuch neighbours are to the Spaniards. How can they be purſued in ſuch long expeditions, or how prevented from aſſembling in a ſingle point, a nation ſpread over a country 400 leagues acroſs, and thus forming an army of 30,000 men?

Mr. Higgins had the good fortune to gain the good will of theſe ſavages, and thereby rendered the moſt ſignal ſervice to the nation which had adopted him; for he was a native of Ireland, deſcended from one of the families there who have been perſecuted on account of their religion, and ancient attachment to the houſe of Stuart. I cannot deny myſelf the pleaſure of ſpeaking of this loyal officer, whoſe manners are ſo accordant with thoſe of every nation. Like the Indians I alſo granted him my entire confidence after an hour's converſation. His letter was ſoon followed by his return, and I was ſcarcely informed of it when he arrived at Talcaguana. Again I was anticipated, for a colonel of cavalry is ſooner mounted than a French ſailor; and Mr. Higgins, who was charged with the defence of the country, was a man of almoſt unequalled activity. In politeneſs and attention he exceeded, if poſſible, the M. Quexada. His kindneſs appeared ſo ſincere and engaging to all the Frenchmen, that no expreſſions could convey our ſentiments of gratitude. As we were indebted to all the inhabitants for their politeneſs, we reſolved to give them a general *fête* before our departure, and to invite to it all the ladies of La Concep-

tion. A large tent was therefore pitched by the ſide of the ſea, where we gave a dinner to 150 viſitors, who had the complaiſance to come nine miles to accept our invitation, which was followed by a ball, fire-works, and a paper balloon, large enough to afafford them an intereſting ſpectacle.

The next day we made uſe of the ſame tent to give a great dinner to the crews of both our ſhips, when we all ſat at the ſame table; M. de Langle and myſelf at the head, and every officer, down to the laſt of the ſailors, placed according to their rank on board. Our plates were wooden platters, and gaiety and pleaſure ſmiled in the countenances of all the ſailors, who appeared more healthy, and a thouſand times happier than on the day of our departure from Breſt.

The colonel of cavalry gave a *fête* in his turn, and we all went to La Conception to attend it, except the officers on duty. Mr. Higgins came to meet us, and conducted our cavalcade to his houſe, where a table was laid with 100 covers, to which all the officers and inhabitants of diſtinction were, with ſeveral ladies, invited. At each courſe a Franciſcan *Improviſatore* recited ſome verſes in celebration of the union between the two nations. At night there was a great ball, attended by all the ladies in their beſt dreſſes, and ſome officers in maſks performed a very elegant ballet. It is impoſſible to form a more charming *fête* in any part of the world. It was given by a man whom the whole country adored, and to foreigners who had the advantage of belonging to a nation reputed the moſt gallant in Europe.

But theſe pleaſures and this good reception did not induce me to loſe ſight of my principal object. I announced, on the day of my arrival, that I ſhould ſail on the 15th of March, and that ſhould our veſſels be refitted, and our wood, water and proviſions be on board before that time, every one ſhould have liberty to

to go and amuſe himſelf on ſhore. Nothing could be better calculated to accelerate our work than this promiſe, of which however I dreaded the effect as much as the ſailors deſired it; becauſe wine is very abundant in Chili, where every houſe ſells it, and the wives of the inhabitants are almoſt as complaiſant as thoſe of Otaheite; yet no irregularity cauſed me to regret the indulgence I had granted.

During our ſtay at Talcaguana, M. Dagelet regularly made compariſons, to aſcertain the rate of our time-keepers, with the reſult of which we were extremely well pleaſed. No. 19 had only loſt 3½″ per day upon the motion of the ſun, ſince our departure from France, which is a difference of but half a ſecond from its daily rate at Breſt, and one ſecond from that at Teneriffe. The ſmall time-keepers, Nos. 25 and 29, had varied ſo much as not to deſerve our confidence.

On the 15th, at day break, I made the ſignal to prepare for ſailing; but the wind then ſettled in the north, whereas, during our whole ſtay in this road, it had been conſtantly between ſouth-ſouth-weſt and ſouth-weſt. The breeze uſually came on at ten in the morning, and ceaſed at the ſame hour; or earlier at night when it had begun earlier; on the contrary, it continued till midnight, if it had begun at noon; ſo that there were about twelve hours of breeze and twelve hours of calm. This rule conſtantly prevailed till the 15th, when the wind, after an abſolute calm and exceſſive heat, ſettled in the north. It blew very freſh from that quarter, with much rain during the nights of the 15th and 16th; and on the 17th, about noon, a light breeze ſprung up from the S. W. with which I got under ſail, altho' it was very feeble, and only carried us two leagues out of the bay, where we remained in a dead calm and a heavy ſwell, in conſequence of the late northerly winds. We were ſurrounded during the whole

whole night, by whales, which came ſo near our ſhips that they ſpouted water on board. Yet not an inhabitant of Chili ever harpooned a fiſh; for Nature has laviſhed ſo many riches on this kingdom, that ſeveral ages will elapſe before this branch of induſtry will require to be cultivated.

On the 19th the ſouth winds permitted me to ſtand off from the ſhore, when I ſhaped my courſe to the eaſtward of the iſland of Juan Fernandez, which I did not make, becauſe its ſituation has been fixed according to the obſervations of Father Feuillée at La Conception, and it is impoſſible there ſhould be an error of ten minutes in its longitude.

On the 23d we were in 30° 29′ S. latitude, and 85° 51′ W. longitude by our time-keeper, No. 19, whoſe rate ſince our departure from La Conception was ſo perfectly exact with that of No. 18, which was on board M. de Langle's ſhip, that their reſults did not differ two minutes of a degree till our arrival at Eaſter Iſland. In the cold climates in the neighbourhood of Cape Horn it was otherwiſe, for it appears that the table of temperature given to M. Dagelet by M. Berthoud at Paris, was not correct. The difference was ſo conſiderable, as to occaſion an error in the longitude, by No. 18, of more than a degree, between the Strait of Le Maire and our arrival off the coaſt of Chili.

On the 24th the wind ſettled to the eaſtward, and did not vary five degrees till we were about 120 leagues from Eaſter Iſland. On the 3d of April, in 27° 5′ S. lat. and 101° W. long. we had the wind from N. E. to N. W. and we ſaw the only birds we had met with ſince we paſſed the iſland of Juan Fernandez, except one or two *taille-vents*, that we had ſeen in a run of 600 leagues. This frequent change of wind is the moſt certain ſign of land, though naturaliſts perhaps will find it difficult to explain how the influence of a ſmall iſland in ſo immenſe a ſea ſhould

ſhould extend to 100 leagues. Nor is it enough for a navigator to preſume that he is that diſtance from an iſland, becauſe nothing points out to him in what point of the compaſs he may fall in with it. The direction of the flight of birds after ſun-ſet afforded me no information; and I am fully convinced, that in all their motions they have no other object than the purſuit of prey. I have at duſk obſerved ſea-birds direct their flight towards ten different points of the horizon; and I am of opinion that from ſuch an appearance the moſt enthuſiaſtic augurs would not have ventured to draw any concluſion.

On the 4th of April I was only 60 leagues from Eaſter Iſland, when I ſaw no birds, and the wind was N. N. E. and it is probable that had I not known the exact ſituation of the iſland, I ſhould have imagined I had paſſed it, and ſhould therefore have put about. But I made theſe reflections at the time, and I muſt acknowledge that the diſcovery of iſlands is to be attributed to chance, and that very often the acuteſt calculations from theory have only miſled ſucceeding navigators.

On the 8th of April, at two in the afternoon, I made Eaſter Iſland, bearing W. 5° S. diſtant twelve leagues. The ſea was then very high, and the winds northerly; it had been ſhifting during the laſt four days, and had veered round from N. to S. by the W. I am of opinion that this variation was not occaſioned ſolely by the proximity of a ſmall iſland, nor is it probable the trade winds are conſtant in this ſeaſon in the 23d degree. The point I perceived was that to the eaſtward. I was then preciſely in the ſame place where Capt. Davis, in 1686, had fallen in with an iſland of ſand, and twelve leagues further to the weſtward, a land which Captain Cook and Captain Dalrymple took for Eaſter Iſland, and which was again found in 1722 by Roggewin. But theſe two ſeamen, though very well informed, did not ſufficiently attend

attend to the account of Waffer, who ſays, (Rouen edit. p. 300) "That Captain Davis, departing from "Gallapagos, with an intention of returning to Eu- "rope by Cape Horn, and of only putting into the "iſland of Juan Fernandez, experienced in 12° S. "lat. a terrible ſhock, and thought he had touched "upon a rock; he had then conſtantly directed his "courſe to the ſouthward, and reckoned he was 150 "leagues from the continent of America; but he af- "terwards learnt that at the ſame moment an earth- "quake took place at Lima.

"Having recovered from his alarm he continued to "run S. S. by E. and S. W. as far as 27° 20′, and, he "ſays, that at two in the morning they heard a-head "the noiſe of a ſea breaking on the ſhore. He lay-to "till day, when he ſaw a ſmall iſland of ſand, which "was not ſurrounded by any rocks. He approached "it within a quarter of a mile, and perceived, fur- "ther on, bearing 12 leagues to the weſtward, a great "land, which he took for a group of iſlands, on ac- "count of the intervals between the different capes. "Davis did not ſurvey it, but continued his courſe "towards the iſland of Juan Fernandez." But Waf- ſer ſays, that this little iſland of ſand is 500 leagues from Copiapo, and 600 from Gallapagos; but it has not been ſufficiently obſerved, that this reſult is im- poſſible. If Davis, in 12° S. lat. and 150 leagues from the coaſt of America, had made a due S. S. E. courſe, as Waffer relates; as it is evident this buccaneer captain muſt have ſteered with the eaſterly winds ſo frequent in theſe ſeas, in order to perform his inten- tion of going to Juan Fernandez, we muſt conclude with M. Pingré, that there is an error in the figures of the quotation of Dampier, and that the land ſeen by Davis, in lieu of being 500, is only 200 leagues from Copiapo. It would then be probable that the two iſlands of Davis are thoſe of St. Ambroſe and St. Felix, which are a little more to the northward than Co-

Copiapo. But the buccaneer pilots were not ſo minute, and ſeldom took the latitude within 30 or 40 minutes. I ſhould have ſpared my readers this geographical diſſertation, had I not to oppoſe the opinions of two juſtly celebrated ſeamen. I ought, however, to obſerve, that Captain Cook was in doubt, and declared he would have decided the queſtion, had he had time to get into a higher latitude to the eaſtward of Eaſter iſland. As I ran down 300 leagues on that parallel, without ſeeing the iſland of ſand, I am of opinion, no doubt ought to remain; and the problem appears to me completely ſolved *.

During

* While I adopt the ſolution of this problem given by La Pérouſe, I ought to give a complete view of the proofs reſulting from the journals of other navigators.

It evidently appears, as Pingré, Cook, and La Pérouſe obſerve, that there is an error in the figures of Dampier, and that the pretended land of Davis can be only 200 leagues from the coaſt of America.

I agree with La Pérouſe, that the methods of computing the longitudes were ſo erroneous in the time of Davis, that we can only rely on the latitudes. Thus it is by the account of Waffer, that we may delineate the track of Davis at his departure from the Gallapagos Iſlands, at which time he ſteered ſouthward, as far as the twelfth degree of S. lat. where he experienced a terrible ſhock, &c. He had conſtantly ſteered ſouthward, and reckoned that he was 150 leagues from the continent of America.

In obſerving on the chart the ſhip's place thus deſcribed, we ſhall find that he was nearly in the 87th degree of W. long. He continued his courſe ſouthward, S. by E. and S. W. as far as the land diſcovered in 27° 20′ S. lat. By thus following the track of Davis, it appears he muſt have been about 200 leagues from Copiapo, 600 from the Gallapagos, and 1° to the S. E. of the S. point of the ſituation in which the iſlands of St. Felix and St. Ambroſe are laid down in the French maps. It may eaſily therefore be perceived, that the great land ſeen by Davis 12 leagues to the ſouthward, muſt be that of the iſlands of St. Felix and St. Ambroſe, and that the iſland of ſand muſt be a few leagues to the eaſtward of theſe iſlands.

In order to eſtabliſh this, let us review the ſituation pointed out for the pretended land of Davis, and for the iſlands St. Felix and St. Ambroſe, as well as the journals of the different navigators.

The Engliſh maps place theſe iſlands in 15° S. lat. the French in 25°, and thoſe of Green from 26° 20′ to 27°.

Cook

During the night of the 8th of April, I coaſted Eaſter Iſland, at three leagues diſtance. The weather was clear, and the wind had veered round from North to S. E. in leſs than three hours. At day-break I ſteered for Cook's Bay, which is the moſt ſheltered from the winds between N. and S. by the Eaſt, in the whole iſland. It is only open to the Weſt winds, and the weather was ſo fine that I had hopes they would not blow for ſeveral days. At eleven o'clock I was not above a league from the anchorage. The Aſtrolabe had already dropped anchor, and I did the ſame very near her: but the water deepened ſo rapidly, that the anchors of both

Cook agrees that he miſſed the true latitude of theſe iſlands, rather in conſequence of having relied on the table of latitudes and longitudes, in Robertſon's Elements of Navigation, than on Green's chart. He ſaw certain ſigns of land in the neighbourhood of the 25th degree of S. lat. But he could not find in 25° 50', and 25° 30', the land of Davis which did not exiſt, nor the iſlands St. Felix and St. Ambroſe, which muſt exiſt in the 27th degree, and of which he perceived ſome ſigns.

La Pérouſe, when coming from the eaſtward, and running down 300 leagues on the parallel of Eaſter iſland, could not ſee either the land of Davis, which did not exiſt, or the iſlands of St. Felix and St. Ambroſe, whoſe longitude is between 26 and 27 degrees to the eaſtward of that iſland. It is therefore evident, as Captains Cook and Dalrymple thought, that Eaſter iſland, which was found again by Roggewein in 1722, cannot be the land of Davis.

It is alſo evident, that the Iſlands of St. Felix and St. Ambroſe, cannot exiſt in the ſituation laid down in the Engliſh maps: for as Cook remarks, Davis would then have fallen in with them in his track. And it is evident, that the Iſlands of St. Felix and St. Ambroſe cannot exiſt in the ſituation laid down in the French maps, in conformity with that deſcribed by Robertſon; for then Capt. Cook would have ſeen them.

It appears then almoſt demonſtrative, that the land of Davis does not exiſt, but that there are Iſlands in the 27th degree of S. latitude, about 200 leagues from Copiapo, which are no other than the Iſlands of St. Felix and St. Ambroſe, laid down erroneouſly in all the maps; and that theſe Iſlands are the pretended land of Davis. Such, at leaſt, is my opinion, after a compariſon of the journal of the different navigators. It is alſo the opinion of a modern navigator, in high eſtimation, I mean M. Bougainville.—*French Editor.*

ſhips

ſhips came home. Thus we were obliged to purchaſe again, and make two boards to regain the anchorage.

This contrariety did not abate the ardour of the Indians, who ſwam after us to a league off ſhore, and came on board with a laughing careleſs air, which gave me the beſt opinion of their character. Men of a more ſuſpicious turn would have feared, when we got under ſail again, that we were carrying them off from their native ſoil. But the idea of ſuch perfidy did not ſeem to preſent itſelf to their minds.

Naked and unarmed, in the midſt of us, a ſimple ſtring round their middle ſupported a bundle of herbs that hung down before. Mr. Hodges, the painter who accompanied Capt. Cook in his ſecond voyage, has ſucceeded very ill in pourtraying their phyſiognomy, which is generally agreeable and extremely various; and has not, like that of the Malays, Chineſe, and inhabitants of Chili, a general character that is peculiar to themſelves.

I made ſeveral preſents to theſe Indians, who preferred pieces of painted cloth, half an ell long, to nails, knives, and beads. Even theſe yielded to their ſtronger inclination for hats, of which however we had too ſmall a quantity to give to many of them. At eight in the evening I took leave of my new gueſts, giving them to underſtand by ſigns, that at day-break I ſhould go aſhore. They then went dancing into their boat, and threw themſelves into the ſea, two muſket ſhots from the ſhore, on which the billows broke with conſiderable force. They had taken the precaution of making little packets of my preſents, and every one placed thoſe which belonged to him on his head, to ſecure them from the water.

CHAP.

CHAP. IV.

DESCRIPTION OF EASTER ISLAND—INCIDENTS AND EVENTS WHICH TOOK PLACE THERE—MANNERS AND CUSTOMS OF THE INHABITANTS.

COOK's Bay, in Eaſter Iſland, is ſituated in 27° 11′ S. lat. and 111° 51′ 30″ W. lon. and is the only anchorage that is ſheltered from the S. E. and E. winds, which uſually blow in theſe ſeas. With weſterly winds it is very dangerous: but from that quarter, however, the wind never blows, till it has veered round by the Eaſt to N. E., to the N. and from thence to the Weſt. There is ſufficient time, therefore, to get under way; and, at three quarters of a mile in the offing, no danger is to be feared.

This Bay is eaſily known. For after doubling the two rocks off the ſouth point of the Iſland, and running along ſhore at the diſtance of a mile, a ſmall creek may be perceived, which is the moſt certain land mark. When this creek bears E. by S. and the two rocks abovementioned are ſhut in with the point, there is anchorage in twenty fathoms water over a bottom of ſand, at three quarters of a mile from the ſhore. Further in the offing there is no bottom but in thirty-five or forty fathoms, and the depth of the water encreaſes ſo rapidly that the anchor does not hold. The landing is eaſy at the foot of one of the ſtatues, of which I ſhall preſently ſpeak.

At day-break I ordered every thing to be made ready for us to go on ſhore, where I had reaſon to expect I ſhould meet with friends, as I had loaded with preſents thoſe who had come on board the preceding evening. I was too well acquainted with the accounts of the different navigators, to be ignorant that the Indians are but grown up children, whoſe deſires the ſight of our property would ſo ſtrongly

ſtrongly excite, that they would take every poſſible method to get poſſeſſion of them. I was therefore convinced that I muſt reſtrain them by fear, and gave orders that this expedition ſhould be accompanied with a little warlike train. We put this in execution, with four boats and twelve armed ſoldiers. M. de Langle and myſelf were followed by all the paſſengers and officers, except thoſe who were neceſſary to carry on the duty on board our ſhips. Thus we formed a body of about ſeventy perſons, including the crews of our boats.

Four or five hundred Indians waited for us on the ſhore. They were unarmed, and ſeveral of them covered with pieces of white and yellow ſtuff; but the greater number were naked, ſeveral were tattooed, and their faces painted red. Their cries and their phyſiognomy equally expreſſed their joy, as they advanced to give us their hands and aſſiſt us in landing.

This part of the Iſland has an elevation of about twenty feet, and the mountains are about ſeven or eight hundred toiſes from the ſea, to which the ſoil has a gentle declivity from the baſes. This interval is covered with a kind of herb, which I believe to be fit for paſturage. It grows on the ſurface of large ſtones, that lie looſe upon the earth, and appear preciſely ſimilar to thoſe of the Iſle of France, called in the country *giraumons*, becauſe they are in general of the ſize of that fruit. Theſe very ſtones, which were ſo inconvenient to us in walking, are a very valuable preſent from nature. They keep the earth cool and moiſt, and ſupply the place of that ſalutary ſhade which the inhabitants have imprudently baniſhed by felling their trees. This practice, which has expoſed their ſoil to be burnt up by the ſun, and precluded the exiſtence of floods, rivulets, or ſprings, muſt have taken place in very remote periods. The iſlanders were ignorant, that in the

small islands of such an immense ocean, the coolness of a land covered with trees can alone detain and condense clouds, and thus keep up an almost continual rain upon the mountains, which may spread on every side into springs and rivulets. Islands deprived of this advantage, are subject to a horrid drought, which gradually destroys the plants and shrubs, and renders the land almost uninhabitable. M. de Langle and myself did not doubt that this people owed their unfortunate situation, in this respect, to the imprudence of their ancestors; and it is probable, that other Islands of the South Sea are only watered, because fortunately they have inaccessible mountains, where it has been impossible to cut wood. Thus has nature veiled her greater liberality to the latter behind the cloak of avarice, and by concealing her exuberance in recesses which it was out of their power to invade. A long stay in the Isle of France, which bears so strong a resemblance to Easter Island, has taught me that the trees never shoot again, unless sheltered from the sea breezes by other trees or by walls. And it was the knowledge of this circumstance that explained to me the cause of the devastation of Easter Island, whose inhabitants have much less cause of complaint from the eruptions of their volcanos, which have long been extinguished, than from their own imprudence. But as man accommodates himself to every situation, with more ease than any other animal, these islanders appeared less unfortunate to me than they did to Capt. Cook and Mr. Forster, who arrived there after a long tedious voyage, eat up with scurvy, and in want of every thing. They found neither wood, water, nor pigs: a few fowls, bananas, and potatoes can, in such circumstances, afford but poor supplies. Accordingly their accounts bear the marks of their more unpleasant situation. Ours was infinitely more happy. Our crews enjoyed perfect health;

health; we had taken on board in Chili whatever neceſſaries we wanted for ſeveral months; and all we deſired of the inhabitants, was to afford us an opportunity of conferring benefits. We brought them goats, ſheep, and pigs; and we had ſeeds of oranges, lemons, cotton, maize, and in general every ſpecies of plants moſt likely to thrive upon their ſoil.

Our firſt care, when we landed, was to form a ring of armed ſoldiers, enjoining the inhabitants to leave this ſpace void. Then pitching a tent, I had the preſents intended for them, and the different ſpecies of animals to be left, brought on ſhore. But as I had expreſsly forbidden the ſoldiers to fire, or even with the butt end of their muſkets, to keep off the Indians who might be troubleſome, the ſoldiers themſelves were ſoon expoſed to the rapacity of thoſe iſlanders, whoſe numbers rapidly encreaſed. They amounted at the leaſt to 800, out of whom full 150 were women. The phyſiognomy of many among the latter were agreeable, and they offered their favors to thoſe who were willing to give them preſents. The men endeavoured to induce us to comply, and while the women laviſhed their careſſes on us, took our hats from our heads, and our handkerchiefs from our pockets. They all ſeemed to be accomplices in theſe theſts, for they had ſcarcely committed them, when they all took to flight at the ſame inſtant, like a covey of birds. But obſerving that we made no uſe of our muſkets, they returned a few minutes afterwards, renewed their careſſes, and watched a favourable moment to commit new theſts. Theſe manœuvres continued all the morning: and as we were to leave them at night, and ſo ſhort a ſpace of time did not admit of our giving them much inſtruction, we only amuſed ourſelves with obſerving the artifices theſe iſlanders employed to rob us. In order to remove every pretext for any

kind of force, which might have produced unfortunate conſequences, I declared that I would replace the hats that might be taken from the ſoldiers and ſailors. Theſe Indians were unarmed. Only three or four, among ſo great a number, had a kind of wooden club, not in the leaſt formidable. Some of them appeared to have a ſlight authority over the others, and taking them for Chiefs I diſtributed ſome medals among them, which I hung about their necks with a chain. But I ſoon diſcovered that theſe were in fact the very men who were the moſt notorious thieves; and although they ſeemed to purſue thoſe who ſtole our handkerchiefs, it was eaſy to perceive they were fully determined not to overtake them.

Having but eight or ten hours to remain upon the iſland, and being deſirous not to loſe that interval of time, I confided the care of our tent, and of all our effects, to M. d'Eſcures, my firſt lieutenant, to whom I alſo gave the command of all the ſoldiers and ſailors on ſhore. We then divided ourſelves into two parties, of which the firſt, under the orders of M. de Langle, was to penetrate as far as poſſible into the heart of the Iſland, to ſow the grain in ſuch ſpots as ſhould appear beſt adapted to their cultivation; and to examine the nature of the ſoil, plants, agriculture, population, monuments, and in general every thing intereſting among this very extraordinary people. Thoſe who were able to go over a great extent of ground, joined his party, and he was accompanied by Meſſrs. Dagelet, Lamanon, Duché, Dufreſne, Martinière, Father Receveur, M. Abbé Mongès, and the Gardener. The ſecond party, of which I made one, viſited the monuments, the platforms, and the houſes and plantations, within a league around our quarters. The drawing of theſe monuments, given by Mr. Hodges, preſents but a feeble idea of the objects we ſaw. Mr. Forſter thinks

thinks they are the work of a people much more conſiderable than the preſent inhabitants of the iſland; but his opinion appears to me unfounded. The largeſt of the clumſy buſts on theſe platforms, or that we meaſured, is only fourteen feet ſix inches high, ſeven feet ſix inches broad acroſs the ſhoulders, three feet thick in the belly, and ſix feet broad and five feet thick at the baſe. Theſe buſts, I ſay, may be the work of the preſent race, whoſe population I believe may, without exaggerating, be eſtimated at 2000. The number of women appeared nearly equal to that of the men, and I ſaw as great a number of children as in any other country. For though in about 1200 inhabitants, whom our arrival had drawn together round the Bay, there were not more than 300 women, I ſhould from thence only conjecture, that although the men came from the extremity of the iſland to ſee our ſhips, the women, either becauſe more delicate, or more occupied with their children and families, were left at home; and we only ſaw thoſe who inhabited the environs of the Bay. This opinion is confirmed by the account of M. de Langle, who found, in the interior of the iſland, a great number of women and children; and we all explored the caverns where Mr. Forſter and ſome of Capt. Cook's officers thought the women might be concealed. Theſe are ſubterraneous dwellings, of the ſame form with thoſe I ſhall hereafter deſcribe, where we found ſmall faggots, of which the largeſt pieces were not five feet long, and did not exceed ſix inches in circumference. We cannot, however, diſpute that the inhabitants had concealed their wives when Capt. Cook viſited them in 1772, but I could not diſcover their motive; and it is perhaps to the kindneſs with which thoſe navigators conducted themſelves towards this people, that we owe the confidence they ſeemed to place in

us, and by which we were enabled to judge better of their population.

All the monuments now remaining, and of which M. Duché has given an exact drawing, appear very ancient, and are placed in a kind of *morai*, or burying ground, as we judged from the number of bones near them. It cannot be supposed their form of government has so established all conditions that there is no chief whose memory the inhabitants desire to preserve by erecting him a ſtatue. Inſtead of the coloſſal mauſolea of pride and vanity they have here ſubſtituted very ſmall heaps of ſtone in the ſhape of a pyramid of which the upper ſtone is whitened with lime water. Theſe little monuments, which are only an hour's work for one man, are erected on the ſea-ſhore, and an Indian clearly explained to us by laying himſelf down on the ground the object of theſe heaps of ſtones; afterwards lifting his hands towards Heaven, he evidently expreſſed their belief in a future exiſtence. I was unwilling rather to adopt ſuch an opinion, and confeſs I thought them far from poſſeſſing that idea, till having obſerved them repeat the ſame ſign to others, and M. de Langle, who travelled into the interior part of the country, having reported the ſame fact, I have now no doubt on the ſubject, and I believe all our officers and paſſengers entertain a ſimilar opinion. Yet we ſaw no trace of any religious worſhip among them; for I do not think their rude ſtatues can be taken for idols, notwithſtanding the Indians may have ſhewn for them a ſpecies of veneration. Their coloſſal buſts, of which I have already given the dimenſions, and which ſufficiently prove the little progreſs they have made in ſculpture, are cut out of a volcanic production known among naturaliſts by the name of *lapillo*, a ſtone ſo light and friable that ſome of Captain Cook's officers have thought it might be a factitious ſubſtance compoſed of mortar indurated

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indurated by the air. It only remains to be explained how they have been able to raiſe ſo conſiderable a weight without the aid of machines. We were however certain they were of a very light volcanic ſtone, and that by means of levers five or ſix fathoms long, and ſliding ſtones underneath, as Captain Cook very well explains, they might be able to raiſe a much greater weight: an operation for which an hundred men would be ſufficient, and there would not be room for a greater number to act. Thus the marvellous diſappears, nature regains her *lapille*, which is not the production of art, and there is reaſon to believe that if no new monuments adorn the iſland it is becauſe there all conditions are equal; to be king over a people who are almoſt naked and live on yams and potatoes, excites little jealouſy; and theſe Indians, never having any occaſion for war, becauſe they have no neighbours, have no need of a chief inveſted with any conſiderable authority.

I can only hazard conjectures on the manners of theſe people, whoſe language I do not underſtand, and whom I have ſeen but for a day. I was aſſiſted, however, by the experience of other navigators who have gone before, with whoſe accounts I am perfectly acquainted, and to theſe I added my own reflections.

Scarcely the tenth part of the land is cultivated, and I am perſuaded that three days labour is ſufficient to procure the Indian ſubſiſtence for a year. Such facility in providing for the wants of life has led me to believe the productions of the earth are in common, particularly as I am almoſt certain their houſes are common, at leaſt to a whole village or a diſtrict. I meaſured one of theſe houſes which was near us*; it was 300 feet in length, 10 in breadth, and in the middle ten in height. Its form was that of a canoe inverted, and there was no

* This houſe was not yet finiſhed, ſo that Captain Cook could not have ſeen it.

entrance except by creeping on the hands through two doors, both leſs than two feet high. This houſe, which would contain more than two hundred perſons, could not be the reſidence of the chief, for there was no furniture, and ſo great a ſpace would have been uſeleſs to him; with two or three other houſes not far diſtant, it therefore forms a village.

There is probably in every diſtrict a chief who particularly ſuperintends the plantations, of which Captain Cook imagined he was the proprietor. But if that celebrated traveller found ſome difficulty in procuring a ſufficient quantity of potatoes and yams, it muſt be attributed not ſo much to a ſcarcity of thoſe vegetables, as to the neceſſity of obtaining an almoſt general conſent for their ſale.

I cannot venture to ſay whether the women are common to a diſtrict, and the children to the republic, but it is certain that no individual of the Indians appeared to have over any one women the authority of a huſband. If, however, they are individual property, their maſters are very prodigal of their rights.

Some of their dwellings are, as I have already obſerved, ſubterraneous, but as a proof that there are marſhy places in the interior of the iſland, others are conſtructed of ruſhes, very neatly arranged, which afford a perfect ſhelter from the rain. The building reſts on a baſe of hewn ſtone*, 18 inches thick, in which they have bored holes at equal diſtances to admit poles which bending archwiſe, form the roof, the ſpaces of which are filled up with a thatch of reeds.

The identity of theſe people with the other iſlanders of the South Sea, as Captain Cook obſerves, cannot be doubted, for their language and national phyſiognomy are the ſame, their manufactures alſo, made from the bark of the mulberry, though theſe trees are very rare, having been deſtroyed by the

* Theſe ſtones are not granite, but ſolid lava.

droughts.

droughts. Such as have ſurvived are only three feet high, and theſe they have even been obliged to encompaſs with walls to ſecure them from the winds: it is remarkable that the height of theſe trees never exceeded that of the walls by which they are ſheltered.

I do not doubt that in former periods of time theſe iſlanders have enjoyed the ſame productions as the Society Iſlands. But the fruit trees muſt have periſhed by the droughts, as well as the pigs and dogs to whom water is indiſpenſably neceſſary, while man, who at Hudſon's Bay makes whale oil his beverage, can accuſtom himſelf to any thing, and I have ſeen the natives of Eaſter Iſland drink ſea-water like the albatroſs of Cape Horn. We were there in the wet ſeaſon, and finding a little brackiſh water in ſome hollows on the ſea-ſhore, they offered it to us in gourds: but it was rejected by the moſt thirſty of our crew. I do not flatter myſelf that the pigs which I preſented them will multiply; but I hope that the goats and ſheep which drink little and love ſalt, will ſucceed there.

At one in the afternoon I came back to the tent deſigning to return on board, that M. de Clonard, my ſecond Captain, might go on ſhore in his turn. I found almoſt all my people without hats or handkerchiefs; for our gentleneſs had encouraged theſe plunderers, nor was I at all diſtinguiſhed from the reſt. An Indian who had aſſiſted me in deſcending from a platform, took away my hat, and as ſoon as he had rendered me this ſervice, ran off at full ſpeed, followed as uſual by all the reſt. I did not however cauſe him to be purſued, for being nearly all in the ſame ſtate, I would not alone enjoy the privilege of being ſheltered from the ſun, and therefore continued examining the platform; a monument which has given me the higheſt opinion of the talents theſe people once poſſeſſed for building, for here

here the pompous word architecture cannot be applied. They seem never to have been acquainted with any kind of cement, but they cut and shaped their stones with perfect accuracy, placing and joining them according to the rules of art.

I have collected a few samples of these stones, which are lavas of various densities. The lightest, and which must consequently be the first decomposed, forms the face towards the land; that turned to the sea is constructed of a lava infinitely more compact, and I know not any instrument or substance which these islanders possess, hard enough to cut these last; a longer stay on the island might have afforded some light upon the subject. At two o'clock I returned on board, and M. de Clonard went on shore. Soon afterwards two officers of the Astrolabe arrived to inform me, that the Indians had just committed a robbery, which had occasioned a considerable contest. Some divers had cut the grapnel rope of the Astrolabe's boat under water, and carried off her grapnel, which we did not perceive till the robbers had got a considerable way into the interior of the island. As this anchor was necessary to us, a couple of officers, with several soldiers, pursued them, but were soon overwhelmed with a shower of stones. A musquet fired in the air without shot produced no effect, and they were at last obliged to fire a charge of small shot, some of which, doubtless, touched one of the Indians, for the throwing of stones then ceased, and our officers were able to gain the tent in tranquillity; but it was impossible to overtake the Indians, who must have been astonished at our patience, which all their insults had not been sufficient to subdue.

They soon, however, returned around our quarters, and again offering us their women, we became as good friends as at our first interview. At length, by six in the evening, every thing was got on board, the

the canoes returned on ſhore, and I made the ſignal to prepare to weigh. Before we got under ſail, M. de Langle gave me an account of his excurſion into the interior of the iſland, which I ſhall relate in the following chapter. He had ſown ſeeds through all his route, and ſhewn theſe iſlanders every mark of his extreme benevolence; yet, I think I ſhall complete the portrait of their character, when I relate, that a kind of chief, to whom M. de Langle had preſented a male and female goat, received them with one hand, while, with the other, he ſtole his handkerchief.

Doubtleſs theſe people have not the ſame notions of theft with us. Probably among them no diſgrace is attached to it. But they are well appriſed of the injuſtice they commit, for they inſtantly fly, to eſcape the puniſhment which they evidently expect, and which, had we continued on the iſland, we ſhould not have failed to inflict in proportion to the offence. For our our extreme lenity had, in the end, produced the moſt diſagreeable conſequences.

No one who has read the accounts of modern navigators, can miſtake the Indians of the South Sea for ſavages. On the contrary, they have made very conſiderable progreſs in civilization; and, I believe, are as highly corrupted as poſſible, under all the circumſtances of their ſituation. This opinion is not founded on the various thefts they committed, but on the manner in which thoſe thefts were perpetrated. The moſt hardened, unbluſhing villains of Europe are not ſuch hypocrites as theſe iſlanders, who careſs only to conceal fraud, and whoſe countenance expreſſes not one ſentiment of the heart. For the Indian who had juſt received a preſent, and appeared the moſt eager to render us a thouſand ſervices, was, in reality, ever the moſt to be ſuſpected.

They forcibly dragged to us girls of 13 or 14 years of age, ſolely with the hope of receiving the reward of panders. Their repugnance evinced, that in them

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the laws of the country were violated, and every Frenchman diſdained to uſe the brutal power which he thus poſſeſſed.

I have found, in this country, all the arts poſſeſſed by the people of the Society Iſlands, but with much leſs opportunity of exerciſing them for want of materials. The canoes alſo are of the ſame ſhape, but they are compoſed only of very narrow planks, four or five feet long, and would, at the moſt, carry but four men. I ſaw only three on this part of the iſland; and I ſhould not be ſurpriſed, if, in a ſhort time, through the want of wood, there ſhould not be one remaining. In fact, they have learnt to do without them, for they ſwim ſo perfectly well, that in the higheſt ſea they go two leagues out, and ſearch, by choice at their return on ſhore, the places where the ſurf breaks with the greateſt violence.

The coaſt ſeemed to be ſtocked with very little fiſh, and, I believe, the vegetable kingdom ſupplies all the food of the inhabitants, who live on potatoes, yams, bananas, ſugar-cane, and a ſmall fruit which grows on the rocks at the ſea ſide, reſembling the bunches of raiſins found in the neighbourhood of the tropics in the Atlantic Ocean. We cannot reckon, among their reſources, a few fowls, which, in this iſland, are ſo rare, that our travellers did not ſee a ſingle land bird, and ſea-fowl are by no means common.

In the cultivation of their land theſe iſlanders ſhew great intelligence, pulling up the weeds, burning them in heaps, and thus fertilizing the ground with their cinders. The banana trees are planted in a ſtraight line by the cord. They alſo cultivate the ſolanum, morel, or nightſhade, but I know not to what uſe it is applied. If I had obſerved veſſels capable of reſiſting fire, I ſhould have ſuppoſed that they dreſs it like ſpinage, as at Madagaſcar or the Iſle of France. But they have no other manner of cooking their victuals than that of the Society Iſlands, by

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by digging a hole in the earth, and covering their potatoes or yams with hot ſtones and coals mixed with earth, ſo that all their food is baked as it were in an oven.

The care they took to meaſure my ſhip, proved that they did not behold our works of art with the unobſervant gaze of ſtupidity. For they examined our cables, our anchors, our compaſs, our ſteering wheel, and came the next morning with a line to take the dimenſions, which led me to think that they had ſome diſcuſſion of the ſubject on ſhore, and ſome doubts remained. But I only eſteem them the leſs, becauſe they are ſo capable of reflection. By not making uſe of our power againſt them, we gave occaſion for one reflection to ariſe in their minds, and even that may perhaps eſcape them: yet they were not entirely blind to it, ſince they fled at the moment a muſket was preſented.

So far different was our conduct, that we landed on their iſland only to confer benefits, and load them with preſents. In their fields we ſowed uſeful grain; in their habitations we left pigs, goats, and ſheep, which will probably increaſe, and in exchange demanded nothing; yet did they attack us with ſtones, and rob us of every thing they could pilfer. I repeat, that in other circumſtances to have behaved with ſuch lenity, would have been extremely imprudent: but I was determined to depart in the night, and, I flattered myſelf, that in the morning when they could no longer perceive our veſſels, they would attribute this ſudden departure to our juſt contempt for their practices; and, by this reflection, they may be amended. Be this opinion as it may, and perhaps it is chimerical, navigators are little intereſted in the event, ſince this Iſland * ſcarcely affords any reſources

* Eaſter Iſland, diſcovered in 1722 by Roggewein, appears, as La Pérouſe obſerves, to have experienced a revolution both in its population

fources for ſhips, and the Society Iſlands are not far diſtant.

CHAP. V.

EXCURSION OF M. DE LANGLE INTO THE INTERIOR OF EASTER ISLAND—NEW OBSERVATIONS ON THE MANNERS AND ARTS OF THE NATIVES, THE QUALITY AND CULTIVATION OF THEIR SOIL, ETC.

"I SET out at eight in the morning, accompanied by Meſſrs. Dagelet, de Lamanon, Dufreſne, Duché, l'Abbé Mongès, Father Receveur, and the Gardener, and went about two leagues to the eaſtward towards the interior of the iſland. Our journey was very difficult over ſmall hills covered with volcanic ſtones. But I ſoon perceived paths which communicated from dwelling to dwelling. We took advantage of them, and viſited ſeveral plantations of yams and potatoes. The ſoil of theſe plantations was a very fat vegetative earth, which the Gardener judged proper for the culture of our grain; he therefore ſowed cabbages, carrots, beet, maze, and gourds. We endeavoured to make the natives underſtand that theſe ſeeds would produce fruits or roots for their ſuſtenance. They underſtood us perfectly, and then ſhowed us the beſt land, pointing out the places where they wiſhed to ſee our new productions ariſe. To theſe leguminous plants, we

population and the productions of its ſoil. We muſt, at leaſt, draw that inference, from the difference in the accounts of theſe two navigators. The Reader who wiſhes to compare them, may conſult the *Voyage de Roggewein*, printed at the Hague, in 1739, or the extract which the Preſident de Broſſes gives in his work, entitled, *Hiſtoires de Navigations aux Terres Auſtrales*, vol. ii. 226, and following pages.—*French Editor.*

added

added ſeeds of orange, citron, and cotton, endeavouring to make them comprehend they were trees, and that what we had previouſly ſown were plants.

"We found no other ſhrubs than the paper mulberry tree *, and a ſpecies of the mimoſa or ſenſitive plant: there appeared ſeveral conſiderable fields of the morel, which they ſeemed to cultivate in lands impoveriſhed by yams and potatoes. We continued our route towards the mountains, which, though very lofty, all terminate in gentle declivities, and are covered with graſs; on them we perceived no traces of floods or torrents.

"After having gone about two leagues to the eaſtward, we returned by the ſouth towards the ſouth eaſt ſide, which our ſhips had ſailed along the evening before; and where, with the aid of our teleſcopes, we had obſerved ſeveral monuments. Many of theſe were thrown down, and it appeared that the inhabitants take no care to repair them, while others remained ſtanding, with their platforms half ruined. The largeſt of thoſe I meaſured was 16 feet 10 inches high, comprehending the capital, which is three feet one inch, and of a very light porous lava. Its breadth, at the ſhoulders, was ſix feet ſeven inches, and its thickneſs at the baſe two feet ſeven inches.

Having at length deſcried a collection of huts, I directed my ſteps to this little village as it were, of which one of the houſes was 330 feet in length, and in the ſhape of an inverted canoe. Very near this hut we obſerved the foundations of ſeveral others, which now no longer exiſt; they are compoſed of lava cut into ſtones, in which there are holes of about

* *Morus papyrifera*, which abounds in Japan, where a preparation of the bark is uſed for paper. With this bark, which is very ligneous, the women of Louiſiana make various articles, together with the ſilk produced upon the tree, while the leaf affords nouriſhment for the ſilk-worm. This tree alſo grows in France.---*French Editor.*

two

two inches diameter. This part of the iſland appeared better cultivated and more populous than Cook's Bay, and the monuments and platforms more numerous. On ſeveral of the ſtones of which theſe platforms are compoſed, we remarked ſkeletons rudely ſketched, and diſcovered holes cloſed up with ſtones, which, as we conjectured, lead to caverns containing the remains of the dead. An Indian explained to us by very expreſſive ſigns, that they were inhumed there, and afterwards aſcended to Heaven. On the ſea ſhore we met with ſeveral pyramids of ſtone arranged nearly like balls in a park of artillery, and perceived ſome human bones in the neighbourhood of the pyramids and ſtatues, of which the latter had always their backs directed towards the ſea.

"The next morning we viſited ſeven platforms, on which were ſtatues either ſtanding or fallen. They only differed in ſize, or the ravages time had committed on them in proportion to their antiquity. We found near the laſt of them a kind of layman or effigy of reeds, repreſenting a man ten feet high, and covered with a white manufacture of the country; the head of a natural ſize, the body thin, the legs pretty exactly proportionate, and a net hanging to its neck in the ſhape of a baſket covered with white cloths, and apparently containing graſs. By the ſide of this ſack was the figure of a child two feet long, with the arms croſſed and the legs hanging down. This layman, which could not have ſtood there many years, was perhaps the model from which ſtatues are now erecting to the chiefs of their country. By the ſide of this ſame platform were two parapets forming an incloſure of 384 feet length by 324 broad. We could not diſcover whether this was a reſervoir for water, or the outline of a fortreſs againſt enemies; but it ſeemed a work left unfiniſhed by its conſtructors.

"Continuing our route weſtward, we met about twenty

twenty children under the care of ſome women, and walking apparently towards the houſes I have juſt mentioned.

"At the ſouthernmoſt extremity of the iſland, we ſaw the crater of an ancient volcano, whoſe ſize, depth, and regularity excited our admiration. It reſembled the fruſtrum of the cone, whoſe upper and larger baſis appeared more than two miles in circumference. The extent of the lower baſis may be eſtimated, by ſuppoſing the ſide of the cone to form an angle of 30° with a perpendicular; the inferior baſis forms a perfect circle, its bottom, which is marſhy, containing ſeveral conſiderable pools of freſh water, whoſe ſurface appeared above the level of the ſea. The depth of the crater is at leaſt 800 feet.

"Father Receveur, who deſcended into the crater, informed us that the marſh was ſurrounded by the fineſt plantations of banana and mulberry trees; and it appeared, as we had obſerved when coaſting the iſland, that there had been a conſiderable falling away of the land on the ſide next the ſea, which had cauſed a great breach in the crater, the height of which is equal to one third of the cone, and its breadth a tenth of the upper circumference. The graſs on the ſides of the cone, the marſh at the baſe, and the fertility of the adjacent lands, prove that the ſubterraneous fires have long been extinguiſhed *, and we ſaw at the bottom of the crater the only birds we met with on the whole iſland: theſe were the water ſwallow. Night obliged us to return towards our veſſels, when we obſerved near one of the houſes we paſſed a great number of children, who fled at our approach. We imagined that in this houſe all the children of the diſtrict were lodged, for their ages were too ſimilar to admit of their belonging to the

* On the ſide of the crater next the ſea is a ſtatue almoſt entirely deſtroyed by time, which proves that ſeveral ages have elapſed ſince the volcano has burnt out.

two women who appeared to have the care of them. Near to this house was an earth hole, where yams and potatoes were dressed in the manner practised in the Society Islands.

"On my return to the tent, I gave to three different inhabitants the three species of animals we destined for this island, making choice of those which appeared most likely to propagate.

"These islanders are hospitable, and frequently offered us potatoes and sugar canes, but never omitted an opportunity of plundering us when they could effect it with impunity. Scarcely the tenth part of the country is cultivated, and the lands already cleared are in an oblong form, and extremely regular, but without any kind of inclosure, the rest of the island being covered with a very coarse grass, which extends to the very summit of the mountains. It was then the wet season, and we found the earth moistened a foot deep. Some holes in the hills contained a little fresh water, but no where did we find any running stream. The soil appeared of good quality, but were it advantageously watered, would have a livelier vegetation. We did not perceive among these people any implements of agriculture, and it is probable that when they have cleared the land, they make holes with stakes, and then plant their yams and potatoes. We found, though very rarely, a few bushes of mimosa, of which the thickest are only three inches in diameter at the stem. The most probable conjectures concerning the government of these islanders is, that they compose but a single nation divided into as many districts as there are *morais*; for we observed that the villages are built near these cemeteries. It appears that the productions of the earth are common to all the inhabitants of the same district, and as men offer their wives to strangers without the least delicacy or reserve, it may be supposed they do not belong to any man in particular,

and

and that as ſoon as children are weaned, they are delivered to other women, who in each diſtrict are charged with their management.

"In this iſland we met with twice as many men as women; and if they are not in fact leſs numerous than the men, their apparent paucity muſt have ariſen from their being more domeſtic. Their whole population may be eſtimated at 2000, while the number of houſes we ſaw building, and of their children, gave us reaſon to conclude their population is not on the decline. But there is ground to believe, however, that the inhabitants were more numerous when the iſland was better wooded. Had the inhabitants ſufficient induſtry to build ciſterns, they would remedy one of the greateſt misfortunes of their ſituation, and might even prolong their lives, for we did not ſee one man that appeared more than ſixty-five years of age, if we may be ſuppoſed to judge with accuracy of a people we knew ſo ſlightly, and whoſe mode of life is ſo different from our own.

CHAP. VI.

DEPARTURE FROM EASTER ISLAND—ASTRONOMICAL OBSERVATIONS—ARRIVAL AT THE SANDWICH ISLANDS—ANCHORAGE IN THE BAY OF KERIPOREPO, IN THE ISLAND OF MOWEE—DEPARTURE FROM THAT ISLAND.

ON quitting Cook's Bay, in Eaſter Iſland, in the evening of the 10th, I ſteered to the northward, coaſting the iſland by moon light at a league's diſtance, and I did not loſe ſight of it till the next day at two in the afternoon, though we were then from it about 20 leagues. The wind blew conſtantly between S. E. and E. S. E. till the 17th, but the wea-

ther was perfectly clear, and did not change and become cloudy till the wind came round to E. N. E. where it settled from the 17th to the 20th. At that time we began to catch *bonitas** which constantly followed our ships as far as the Sandwich islands, and furnished every day, during six weeks, a complete allowance for the whole of our crews. This wholesome food preserved their health in the best state; and after ten months navigation, during which we were only twenty-five days in port, we had not one man sick on board either of our ships. We were navigating in unknown seas, and our track was parallel to that of Captain Cook in 1777, when he sailed from the Society Islands for the N. W. coast of America, though we were about 800 leagues more to the eastward. I had flattered myself that in a run of near 2000 leagues I should have made some discoveries, and constantly kept men at the mast head, to whom I had promised a reward for the first who should discover land; while, in order to command a more extensive view, our ships kept a-breast of each other during the day, leaving between them a space of 3 or 4 leagues.

During this passage, as on all other occasions, M. Dagelet never omitted any opportunity to take lunar observations, which agreed so well with M. Berthoud's time-keepers, that they never differed above 10 or 15 minutes of a degree, and thus became a check on each other. M. de Langle found his results equally satisfactory, and by the difference between the longitude, by account, and that by observation, we knew each day the direction of the currents. They carried us to the westward as far as 1° S. lat. at the rate of about 3 leagues in 24 hours, where they changed to the eastward, running with the same degree of rapidity as far as 7° north, where

* A fish, so called, the oil of which becomes luminous when agitated.—See note, p. 11.

they

they again resumed their westerly direction. On our arrival at the Sandwich islands, our longitude by account differed about 5° from that by observation, whereas, had we, like the ancient navigators, possessed no means of taking lunar observations, we should have laid down the Sandwich islands 5° further to the eastward. Doubtless it is from this setting of the currents, so little attended to in former times, that the errors of the Spanish maps have arisen: for it is remarkable that the islands discovered by Quiros, Mendana and other navigators of that nation, have been again found in these later periods, but always at a greater distance from the coast of America than in their charts. And, I may add, that had not the self-love of our pilots been hurt by the difference which daily occurred between our longitude by account and that by observation, we should have found an error of 8 or 10° in making the island; and consequently in less enlightened times we should have placed the Sandwich islands 10° more to the eastward.

These reflections left me much in doubt concerning the existence of the cluster of islands called by the Spaniards *La Mesa*, *Los Majos*, *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, that cluster is placed precisely in the same latitude as the Sandwich Islands, but 16° or 17° more to the eastward. My daily differences in longitude made me believe these islands were absolutely the same*; but what fully convinced

* In the course of the years 1786 and 1787, Captain Dixon put in three times at the Sandwich Islands, and entertaining the same doubts as La Pérouse, on the identity of these islands, and those called *Los Majos*, *La Mesa*, &c. and after having made these remarks, drew precisely the same conclusions, as may be seen by the following extracts from his voyage.

"The islands Los Majos, La Mesa, and Santa Maria de la Gorta,

ced me of it was the name of *Mesa*, or Table, given by the Spaniards to the island of Owhyhee. I had read in Captain King's description of this same island, that after having doubled the easternmost point they discovered a mountain called Mowna-Roa, which is perceived a long time before: "It is, (says he) flat at the top, making what is called by mariners *table-land*," an English word uncommonly expressive of its form.

Though the season was now far advanced, and I had not a moment to sacrifice before my arrival on

laid down by Mr. Roberts, from 18 deg. 30 min. to 28 deg. north latitude, and from 135 deg. to 149 deg. west longitude,* and copied by him from a Spanish M. S. 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 intention has uniformly been to mislead rather than assist succeeding navigators.

"Our observations at noon, on the 8th of May, gave 17 deg. "4 min. north latitude, and 129 deg. 57 min. 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 un- "der 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 correct in the latitude of these islands, "yet they might be easily mistaken several degrees in their longi- "tude: but our latitude on the 15th at noon being 20 deg. 9 min. "north, and in 140 deg. 1 min. west longitude, which is consi- "derably to the westward of any island laid down by the Spaniards, "we concluded, and with reason, that there must be some gross "mistake in the chart."

"On the first of November, we looked out for Sta. Maria le Gorta, "which is laid down in Cook's chart, in 27 deg. 50 min north "latitude, and 149 deg. west longitude, and the same afternoon "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 found to be erro- "neous, respecting Los Majos and Roco Partida."

* It must be observed, that Dixon reckons the longitudes westward, while Cook in his 3d voyage reckons them eastward. For the former having sailed westward to double Cape Horn, found that mode of reckoning more natural and convenient.

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the coaſt of America, I immediately determined to ſhape a courſe ſo as to demonſtrate the truth or falſehood of my opinion. Had I been in an error, the reſult muſt have brought me to a ſecond cluſter of iſlands, forgotten perhaps for above a century by the Spaniards, and have determined their preciſe ſituation and diſtance, from the Sandwich iſlands. Thoſe who know me beſt, however, will not ſuppoſe I was guided in this reſearch by any deſire to deprive Captain Cook of the honour of this diſcovery. On the contrary, filled with admiration and reſpect for that great man, he will ever appear in my eyes the ableſt of navigators, and the firſt who has preciſely determined the ſituation of theſe iſlands; explored their coaſts, deſcribed the manners, cuſtoms, and religion of their inhabitants; a knowledge, for which, we muſt ever regret, he has paid with his life. He indeed is the Columbus of that country, of the coaſt of Alaſka, and of almoſt all the iſlands of the South Sea. Ignorance may, by chance, diſcover a few iſlands but it belongs only to great men like him to leave nothing unexplored that appertains to the countries they have viſited. Mariners, philoſophers, and naturaliſts, all find in his voyages the objects of their reſearch. Every man, at leaſt every navigator, owes a tribute of gratitude to his memory, and how can I withhold my ſuffrage at the moment when I am approaching the cluſter of Iſlands where he ſo tragically finiſhed his career?

On the 7th of May, in 8° N. lat. we perceived ſeveral birds of the petrel kind, together with thoſe called *frégates* and *paille en culs*, of which the two firſt are ſaid not to go far from land. We alſo obſerved ſeveral turtles paſs along ſide; and the Aſtrolabe caught two exceedingly good, which were divided with us. The birds and turtles followed us as far as 14°, and I have no doubt we were paſſing near ſome iſland, though probably uninhabited; for

a rock in the middle of the sea is a better refuge to these animals than a cultivated country. At that time we were very near Rocca-Partida and Nublada, and I shaped my course to pass nearly in sight of the former, if its longitude should appear to be accurately laid down; but I was not willing to run into its latitude, not having a single day to give up to this research. I knew well that in this course it was improbable I should fall in with it, and I was but little surprised at not getting sight of it. When we had passed its latitude the birds disappeared, and till my arrival at the Sandwich islands over a space of 500 leagues, we never saw more than two or three in a day.

On the 15th I was in 19° 17′ N. lat., and 130° W. long. which is the latitude of the group of islands laid down on the Spanish charts, as well as of the Sandwich islands, though 100 leagues to the eastward of the former, and 460 of the latter. Thinking I should render an important service to geography, if I relieved our charts from these empty names of islands that have no existence, and perpetuate errors that are extremely prejudicial to navigation; I was desirous to banish all doubt, by extending my track as far as the Sandwich Islands. I even formed an intention of passing between the island of Owhyhee, and that of Mowee, which the English had not an opportunity of exploring. I therefore proposed to land at Mowee to barter for some provisions, and to depart without losing another moment. I knew that by only partially executing this plan, and running but 200 leagues on that line, I should give room for the doubts of sceptics. I was desirous that not the smallest objection should remain to oppose my conclusions.

On the 18th of May I was in 20° N. lat., and 139° W. long., precisely on the spot assigned to the Spanish island Disgraciada, and had no indication whatever of land.

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On the 20th I paſſed through the middle of the whole group of Los Majos, and I never had leſs reaſon to think myſelf in the vicinity of any iſland. I continued to run to the weſtward on this parallel between 20° and 21°, and at length, in the morning of the 28th, I deſcried the mountains of Owhyhee covered with ſnow, and ſoon after of Mowee, ſomewhat leſs elevated. I crowded ſail to near the land, but was at a diſtance of ſeven or eight leagues from it at night-fall, which we ſpent ſtanding off and on, waiting for day break to enter the channel between theſe two iſlands, and to ſearch for anchorage under the lee of Mowee, near the iſland of Morokinne. Our longitudes, by obſervation, agreed ſo perfectly with thoſe of Captain Cook, that having pricked off the ſhip's place, on the Engliſh chart, by our bearings we found a difference of only 10 miles, which we were more to the eaſtward.

At nine in the morning I had the point of Mowee bearing weſt 15° N., and perceived a ſmall iſland bearing weſt 22° N., which the Engliſh were not within ſight of, and have therefore omitted to delineate on their chart, which is, in this part, very defective, while all they have laid down from their own obſervations deſerves the higheſt praiſe. The iſland of Mowee afforded a moſt faſcinating proſpect. I ranged along it at the diſtance of a league, where it runs into the channel to the S. W. by W. We beheld the torrents ruſhing in cataracts from the proud ſummits of the lofty mountains, and diſcharging themſelves into the ſea, after watering the habitations of the natives, which are ſo numerous, that a ſpace of three or four leagues appears to form only a ſingle village. But all the houſes are ſituated by the ſea ſide, and the mountains are ſo near them, that the inhabitable ſkirt ſeemed to be leſs than half a league in breadth. It would be impoſſible to form an idea of the ſenſations this proſpect excited in us, without being a ſeaman, and reduced

reduced, like us, to a bottle of water per day. The trees that crowned theſe mountains, the verdure, the bananas, around the dwellings, every thing, except the ſea breaking with the greateſt violence on the ſhore, contributed to enchant us; and, like Tantalus, we deſcried and devoured with our eyes, what it was impoſſible for us to reach.

The wind freſhened, we were running ſix miles an hour, and I was deſirous, before night, to complete the ſurvey of this part of the iſland, as far as the iſland of Morokinne, under which I flattered myſelf we ſhould find an anchorage ſheltered from the trade-winds. This plan, which was the reſult of unavoidable circumſtances, did not admit of my ſhortening ſail to wait for about 150 canoes that put off from ſhore, loaded with fruits and pigs, which the Indians propoſed to exchange for pieces of iron.

Almoſt all the canoes came along ſide one or other of our ſhips, but we ſailed ſo faſt that they filled with water. The Indians were forced to let go the rope we had thrown out to them. They threw themſelves into the ſea, ſwam after their pigs, and bringing them back in their arms, hoiſted up the canoes on their ſhoulders, emptied the water they had ſhipped, and got into them again; endeavouring, by means of paddling, to regain the ſituation along ſide of us they had been obliged to abandon, and which had been immediately ſeized by others, who ſucceſſively experienced ſimilar misfortunes. Thus we ſaw above 40 canoes ſucceſſively upſet; and although the trade we carried on with theſe good Indians was extremely beneficial to both parties, we could not poſſibly procure above 15 pigs, and ſome fruit, for we were deprived of opportunity to exchange near 300 more.

The canoes had out-riggers, each held from three to five men, and their medium length was 24 feet, only one foot broad, and nearly as much in depth. We weighed one of that ſize, which did not exceed 50lb.

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In theſe ſlight veſſels the inhabitants of theſe make paſſages of 60 leagues, traverſe chan- eagues wide, as that between Atooi and where the ſea is very heavy, but they ſwim ectly well, that they can only be compared ſea wolves and phoca.

proportion as we advanced, the mountains ſeem- retreat within the iſland, which exhibited the ance of a vaſt amphitheatre, though its verdure yellow caſt. We now no longer perceived ; the trees grew even much leſs cloſe; the conſiſted only of ten or twelve huts at a con- ble diſtance from each other; we every mo- found cauſe to regret the country we had , and found no ſhelter but where our eyes a frightful ſhore, from which the lava had for- olled, like the caſcades which, in the other the iſland, now fall from the mountains.

having ſteered S. W. by W. as far as the point of the iſland of Mowee, I hauled up weſt, afterwards N. W., to gain an anchorage which Aſtrolabe had already taken in 23 fathoms water, bottom of grey ſand, about a mile from the land. were ſheltered from the ſea breezes by a large capped with clouds, which, from time to time, us ſome very hard ſqualls; and the winds ſhift- every inſtant, we were inceſſantly dragging our ors. This road was rendered the more incom- ous by currents, which prevented our coming to wind, excepting in ſqualls, which cauſed ſo a ſea, that out boats had the greateſt difficulty ive. However I ſent one off immediately to nd round our ſhips, and the officer informed me t the bottom was the ſame as far as the ſhore, that water ſhoaled gradually, and there were ſeven ms at two cables length from the beach. But weighing the anchor, I found that our cable was abſolutely

abſolutely uſeleſs; and that there muſt be many rocks covered only with a light thin bed of ſand.

The Indians from the villages on this part of the iſland were eager to come on board in their canoes, bringing us, for traffic, ſome pigs, potatoes, banana, roots of *pied de veau*, which the Indians called *tarro*, with cloths and ſome other curioſities, which form part of their habiliments; but I would not permit them to come on board till the ſhip was anchored, and the ſails furled. I told them I was *Taboo* *; and that

* A word which, according to their religion, expreſſes any thing that may not be touched, or a conſecrated place which they may not enter.

For the ſignification of words in the language of the Sandwich Iſlands, we may rely on the vocabulary of Captain Cook, who made a long ſtay in theſe iſlands, and in his communications with the iſlanders, poſſeſſed advantages which no other navigator has been able to obtain. To all theſe grounds of confidence in him, we may add the known talents of Anderſon, by whom he was ſo well aſſiſted.

Dixon gives a vocabulary of their language, in which he makes *taboo* ſignify embargo, though in his journal he explains the ceremony of impoſing the *taboo* in the ſame manner as Captain Cook.

The following is a compariſon of ſeveral words taken from the two vocabularies, which proves what miſtakes may be made when to a perfect ignorance of a language is added the uncertainty of the pronunciation of the words, the manner of expreſſing which varies in almoſt every individual:

CORRESPONDING WORDS TAKEN FROM THE VOCABULRIES.

Engliſh words.	*Cook's.*	*Dixon's.*
Cocoa Nuts,	Eeneeo,	Neehu.
The Sun,	Hai, Raa,	Malarma.
A Gourd,	Aieeboo,	Tibo.
A Woman,	Waheine, Maheine,	Cohaheene.
Brother,	Tooanna,	Titunanie.
A Cord,	Heaho,	Touro.

Cook's vocabulary, though more perfect than that of Dixon, ſupports my aſſertion. We find the word denoting a woman different in two places; he repeats it without heſitation, and probably he learned its ſignification of two perſons whoſe pronunciation was different, for in one place he writes *wabeine*, and in the other *maheine*.—*French Editor.*

word,

word, which I had learnt from the accounts of Engliſh navigators, produced all the effect I could have expected. M. de Langle, not having uſed the ſame caution, had for a moment the deck of his ſhip greatly incommoded by a croud of Indians; who were however ſo docile and fearful of giving offence, that we made them return to their canoes with the greateſt eaſe. When I had ſuffered them to come on board, they ſtirred not a ſtep without our conſent, their looks betrayed a conſtant fear of diſpleaſing us, and their commerce was conducted with the moſt perfect good faith.

Old pieces of iron hoops particularly attracted their attention and awakened their deſire, nor did they want addreſs to procure them by the managment of their bargains; for never would they ſell a quantity of ſtuff, or a number of pigs by wholeſale, well judging it would be more advantageous to demand a ſeparate price for every article.

Their habits of commerce, and their knowledge of the uſe of iron, for which, according to their own confeſſion, they are not indebted to the Engliſh, are additional proofs of the communication which formerly exiſted between theſe people and the Spaniards*, who, a century ago, had very ſtrong reaſons

* It appears certain that theſe iſlands were diſcovered for the firſt time by Gaétano, in 1542. This navigator ſailed from the port of La Natividad, on the weſtern coaſt of Mexico, in 20. N. lat. ſteering to the weſtward; and after having run 900 leagues on that point of the compaſs, (conſequently without changing his latitude) he fell in with a group of iſlands inhabited by ſavages almoſt naked. Theſe iſlands were ſurrounded with coral, were ſtocked with cocoa-nuts, and ſeveral other fruits, but poſſeſſed neither gold nor ſilver; he called them the Iſlands of the Kings, probably on account of the day when the diſcovery was made; and he named that which he diſcovered about 20 leagues farther weſt the Iſland of Gardens. From this account it would have been impoſſible for geographers not to place the diſcoveries of Gaétano preciſely in the ſame ſpot where Captain Cook afterwards found the Sandwich Iſlands.

reaſons for the concealment of theſe iſlands. The weſtern ſeas of America were formerly infeſted with pirates, who would have derived ſupplies of proviſions from theſe iſlanders, the difficulty of procuring which obliged them to run weſtward towards the Indian Seas, or return by Cape Horn to the Atlantic Ocean. When the navigation of the Spaniards in the weſt was reduced to a ſingle galleon from Manilla, I believe that veſſel, which was extremely rich, was limited by the proprietors to a certain track, which diminiſhed their riſk. Thus, by degrees, has this nation loſt perhaps even the remembrance of theſe iſlands, retained by Lieut. Roberts on the general chart of Cook's voyage, in their ancient ſuppoſed ſituation of 15° to the eaſtward of the Sandwich Iſlands. Their identity however with theſe latter being, in my opinion, eſtabliſhed, I have

Iſlands. But the Spaniſh Editor adds, that theſe iſlands are ſituated between 9° and 11° lat. inſtead of between 19° and 21°, as navigators muſt conclude from the track purſued by Gaétano.

Was the omiſſion of theſe ten degrees an error in the figures, or a contrivance of the policy of the Spaniſh Court, which had a great intereſt, a century ago, in concealing the ſituation of all the iſlands in this ocean?

I am inclined to believe it is an error in the figures, for it would have been very bad management to have publiſhed that Gaétano departed from 20° lat. and ſteered due weſt. Had it been their intention to have concealed the true latitude, they might, with as little difficulty, have aſcribed his courſe to another point of the compaſs.

However this may be, every thing coincides except the ten degrees, which muſt be added to the latitude given them by Gaétano. The diſtance from the coaſt of Mexico; the people; their natural productions; the coaſt equally ſurrounded with coral; and, laſtly, the extent from north to ſouth is the ſame: the bearing of the Sandwich Iſlands being nearly between the 19° and 21°, as that of Gaétano is between 9° and 11°.

This further proof, joined with thoſe before cited, reduces this geographical queſtion to the greateſt degree of certainty; to which, however, I may add, that there does not exiſt any cluſter of Iſlands between the 9° and 11° degree, through which lies the uſual track of the galleons from Acapulco to Manilla.

thought

thought it my duty to expunge them from the ſurface of the ocean.

It was ſo late before our ſails were furled, that I was obliged to defer till the morrow my landing on the iſland, where nothing could detain me but the advantage of an eaſy watering place. We ſoon perceived, however, that this part of the coaſt enjoyed no running ſtreams, the declivity of the mountains having directed the courſe of the rains to windward. The labour of a few days would perhaps ſuffice to render this bleſſing common to the whole iſland; but theſe Indians who, in other reſpects, are greatly advanced, have not yet arrived at this ſpecies of induſtry. Their form of government may be learnt from the accounts of the Engliſh, and the extreme ſubordination which reigns among them ſufficiently proves an acknowledged authority exiſts, extending gradually from the king to the moſt inconſiderable chief, and ultimately bearing on the people. I was pleaſed and entertained by an imaginary compariſon of theſe Indians with thoſe of Eaſter Iſland, whoſe induſtry is, at leaſt, equally advanced; for the monuments of the latter evince more intelligence, their cloths are better manufactured, and their houſes better conſtructed, though their government is ſo defective that no one has the power of ſuppreſſing diſorder. They acknowledge no authority, and though I do not believe them to be depraved, it too commonly happens that licentiouſneſs generates diſagreeable and often fatal conſequences. In this compariſon every advantage was in favour of the Sandwich Iſlands, notwithſtanding the death of Capt. Cook had excited all my prejudice againſt them. It is more natural for navigators to regret with anxiety the loſs of ſo great a man, than to examine, in the cool-blooded ſpirit of inveſtigation, whether ſome raſhneſs or imprudence on his part did not, in ſome meaſure,

compel

compel the inhabitants of Owhyhee to ſtand on their own defence*.

The

* It is but too clearly proved, that the Engliſh were the aggreſſors, a truth which they would in vain endeavour to conceal. I draw my proofs from the accounts of Captain King himſelf, who was the particular friend of Captain Cook, and regarded him as his father, while the iſlanders believed him to bear that relation, and who, after a faithful narration of the events which led to his death, adds: "I was fearful that his confidence might "at ſome unlucky moment put him too much off his guard."

The reader may judge of the fact himſelf, by a compariſon of the following circumſtances.

Cook too inconſiderately gave orders for firing in caſe the workmen ſhould be diſturbed, notwithſtanding the experience he had of the maſſacre of ten of Captain Furneaux's crew, occaſioned by two ſhots fired on the Zealanders, who had committed a petty theft of bread and fiſh.

Pareea, one of the chiefs, on claiming his canoe which had been ſeized by the crew, was knocked down by a violent blow with an oar which ſtruck him on the head. When recovered from the ſhock, he had the generoſity to forget the violence committed on him, and a ſhort time afterwards returned with a hat that had been ſtolen, which he reſtored, and even expreſſed a fear that Captain Cook ſhould kill or puniſh him.

Previous to any other offence having been committed, except the ſtealing of the boat, two guns were fired on a couple of large canoes which were endeavouring to make off.

Notwithſtanding theſe circumſtances, Cook marched to the village where the king was, and received all the uſual marks of reſpect, the inhabitants proſtrating themſelves before him.

Nothing indicated any hoſtile intentions on the part of the Iſlanders, when the boats ſtationed acroſs the bay fired again on the canoes which attempted to eſcape, and unfortunately killed a chief of the higheſt rank.

His death enraged the inhabitants, one of whom only ſhewed marks of defiance to Captain Cook by menacing him with a ſtone. On this man Captain Cook fired, but the ball was prevented from taking effect by the mat with which he was covered: that ſhot, however, becoming the ſignal for combat, Phillips was on the point of being ſtabbed, when Cook fired a ſecond time with ball and killed the native who was neareſt to him: the attack immediately became more ſerious, and the marines and ſailors fired a diſcharge of muſquetry.

Already four of the former were killed, and three others, together with the lieutenant, wounded, when Captain Cook perceiving his danger, approached the water's edge, calling to the boats

to

The night was very moderate, with the exception of a few ſqualls, which did not continue ſo much as two minutes at a time. About day-break the long-boat of the Aſtrolabe was diſpatched with Meſſrs. De Vaujuas, Boutin, and Bernizet, who had orders to ſound a very deep bay which lay to the N. W. and where I ſuſpected there was better anchorage; but this other anchoring place, though equally attainable, was not more commodious than that we already occupied. According to the account of theſe officers, this part of the iſland of Mowee affording navigators neither wood nor water, and having very inconvenient road-ſteds, muſt naturally be little frequented.

At eight in the morning four boats were ready to ſet off from our two ſhips; the two firſt carrying 20 ſoldiers under arms, commanded by M. de Pierrevert, one of my lieutenants, and in the two others were M. de Langle and myſelf, followed by all the paſſengers and the officers not on duty. This warlike train gave no alarm to the natives, who, from day-break, lay alongſide us in their canoes. They did not follow us on ſhore, but continued their traffic, and preſerved an air of confidence which their countenances had never before expreſſed. About 120 people, men and women, awaited our arrival on the beach. The ſoldiers with their officers firſt landed; we marked the ſpot we meant to reſerve for our quarters, and the ſoldiers, with bayonets fixed, performed their manœuvres with the ſame exactitude as in the preſence of an enemy. Theſe ce-

to ceaſe firing, and come cloſe in ſhore to re-embark his little party; but he was the ſame moment ſtabbed in the back and fell forwards into the ſea.

We may add, that Cook intending, forcibly or otherwiſe, to carry the king and his family on board; and having for that purpoſe to penetrate ſome way up the country, made too weak an arrangement for his object, in taking with him only a detachment of ten men.—*French Editor.*

remonies made no impreſſion whatever on the natives; and the women evinced, by the moſt unequivocal geſtures, that they would grant us every poſſible mark of their kindneſs; while the men, with a reſpectful demeanor, endeavoured to diſcover the motives of our viſit merely to anticipate our wiſhes. Two Indians, who appeared to have ſome authority over the reſt, advanced, and, with an air of conſiderable gravity, making a pretty long harangue, of which I did not comprehend a ſyllable, offered me each a pig, by way of preſent, which I accordingly accepted, and, in return, gave them ſome medals, hatchets, and pieces of iron, which, in their eyes, are of ineſtimable value. My liberality produced a great effect, and the women redoubled their careſſes, though their perſons were far from ſeducing. Their features were void of delicacy, and their dreſs ſuffered us to perceive that the ſyphilis had committed ravages on the greater number. As no woman came on board in the canoes, I imagined they attributed to the Europeans that malady of which they bore the marks: but I ſoon perceived that this idea, if it exiſted, had not left a ſpark of reſentment in their mind.

Let me, however, be permitted to examine whether the modern navigators are the real authors of theſe evils, and if the crime with which they reproach themſelves in their accounts is not, in fact, rather imaginary than real. That my conjectures may have the greater weight, I ſhall reſt them on the obſervations of Mr. Rollin, a very intelligent man, and ſurgeon-major on board my ſhip. He viſited ſeveral inhabitants in this iſland who were attacked by that diſeaſe, and not only remarked ſymptoms which in Europe would require 12 or 15 years to be gradually developed, but alſo obſerved children ſeven or eight years old infected with this diſorder, which they could only have contracted at the breaſt. I ſhall add,

add, that Capt. Cook, in his firſt voyage to the Sandwich Iſlands, only landed at Atooi and Onceheow; and that nine months after, when returning from the north, he found almoſt all the inhabitants of Mowee, who came on board, infected with that malady. Mowee being 60 leagues to windward of Atooi, ſo rapid a progreſs muſt excite ſome doubts concerning its origin*. If to theſe remarks we add the communication which formerly exiſted between theſe iſlanders and the Spaniards, it will appear probable they have long ſhared, with other nations, all the evils produced by this ſcourge of the human race.

This diſcuſſion was due to modern navigators, whom all Europe, miſled by their own accounts, would for ever have reproached with a crime, the conductors of thoſe expeditions deemed it impoſſible to prevent. But their not having taken ſufficient precautions to prevent the evil, is a reproach they cannot eſcape. Were it even demonſtrated, that the introduction of this malady is not attributable to their imprudence, it is not equally clear that their communication with theſe people has not increaſed its activity, and rendered its conſequences more terrible†.

After viſiting the village, I ordered a ſerjeant and ſix ſoldiers to accompany us, leaving the reſt on the

* It appeared to Captain Cook, that the inhabitants of Mowee had been informed of his touching at Atooi and Oneeheow. *Cook's 3d Voyage*, vol. iii. We ought not, therefore, to wonder, that the diſeaſe and the news paſſed together. Bougainville is convinced the inhabitants of the iſlands, at a conſiderable diſtance from each other in the Pacific Ocean, keep up a reciprocal communication. *Voyage Autour du Monde par Bougainville*, p. 234.—*French Editor*.

† Doubtleſs the modern navigators are juſtly reproached for knowingly communicating the venereal diſeaſe to the iſlands of the South Sea; Captain Cook does not diſguiſe it in his accounts, as may be ſeen particularly from his obſervations in his 3d Voyage, vol. ii. and vol. iii.—*French Editor*.

beach, under the orders of M. de Pierrevert, in whoſe care I left the boats, from which not a ſailor had yet landed.

Although the French were the firſt of the moderns who landed on the Iſland of Mowee, I did not think it my duty to take poſſeſſion of it in the king's name: for the cuſtoms of Europeans, in this reſpect, are completely ridiculous. Philoſophers muſt, doubtleſs, regret there are men who, becauſe armed with bayonets and cannon, count for nothing 60,000 of their fellow creatures; and, regardleſs of the moſt ſacred rights, conſider as an object of conqueſt, a land which the inhabitants have fertilized with the ſweat of their brow, and has contained for ages the tombs of their anceſtors. Happily theſe countries have been diſcovered in times when religion no longer affords a pretext for outrage and cupidity. The object of modern navigators in deſcribing the manners of new nations is only to complete the hiſtory of man; and their expeditions ought to complete our knowledge of the terraqueous globe, ſince the lights they ſpread around them are intended only to tranſmit new happineſs, and augment the means of ſubſiſtence to the nations they viſit.

On theſe principles we have already tranſported to their iſlands, bulls, cows, goats, ſheep, and rams; we have planted their lands with trees, and ſown their fields with grain; we have carried them utenſils to accelerate the progreſs of induſtry: while, on our parts, the fatigues of our voyage would be amply repaid, could we but deſtroy that horrid cuſtom of human ſacrifice ſaid to prevail in all the Iſlands of the South Sea. But, notwithſtanding the opinion of Mr. Anderſon and Captain Cook, I think with Captain King, that a people ſo good, ſo gentle, and ſo hoſpitable, cannot really be cannibals. It is difficult to aſſociate religious ferocity with gentleneſs of manners; and ſince Captain King relates, that the prieſts

prieſts of Owhyhee were their beſt friends, I muſt conclude, that if gentleneſs and humanity have made any progreſs among a claſs devoted by their office to human ſacrifices, the reſt of the inhabitants muſt be ſtill leſs ferocious. It is evident, therefore, the practice of devouring human fleſh no longer ſubſiſts, though, probably, the period of its ceſſation has not long elapſed.*

The ſoil of this country is wholly compoſed of fragments of lava, and other volcanic matter, and the inhabitants drink only brackiſh water from very ſhallow wells, in ſo little abundance as to ſuppy leſs than half a hogſhead from each daily.

During our excurſion we diſcovered four little villages, each containing about ten or twelve houſes, which are not only covered but built with ſtraw, and ſhaped like thoſe of our pooreſt peaſants; the roofs being in the form of a penthouſe. The door, placed at the gable end, is only three feet and a half high, admits of no entrance without ſtooping, and is ſhut only with a hurdle which any one may open. The furniture of theſe iſlanders conſiſts of matts, ſtrewed like carpets, on which they ſleep; and their only kitchen utenſils are very large gourds, which they ſhape at pleaſure while green. They varniſh and delineate various deſigns on them, in black; and I have ſeen ſeveral joined together, ſo as to make very large vaſes, with a glue that reſiſts moiſture, and of which, therefore, I was very deſirous of knowing the compoſition. Their cloths, of which they have great quantities, are made like thoſe of the other iſlands from the paper mulberry, but notwithſtanding they

* The horror of theſe people at our ſuſpecting them of ſuch a practice, and eſpecially when aſked whether they had devoured the body of Captain Cook, confirms the opinion of La Pérouſe; yet Captain Cook has proved to a certainty its exiſtence among the New Zealanders; and it cannot be diſſembled, that the cuſtom of making human ſacrifices, and eating enemies killed in battle, is general in all the iſlands of the South Sea.—*French Editor.*

are variouſly painted, yet, in this manufacture, they are not equally ſkilful with the latter. On my return I received another harangue from ſome women who waited for me under a tree, and preſented me ſeveral pieces of cloth, for which I returned them ſome hatchets and nails.

The reader muſt not expect many particulars of a people already ſufficiently known from the accounts of the Engliſh navigators, who paſſed four months in theſe iſlands, where we remained only a few hours. The former had the advantage of knowing the language of the country, and, therefore, we muſt confine ourſelves to the hiſtory of our own adventures.

We began to re-embark at eleven o'clock without the leaſt reaſon to complain of any miſbehaviour, and were all on board by twelve. M. de Clonard had received a Chief, and purchaſed of him a mantle, and a beautiful helmet covered with red feathers; and had alſo bought more than 100 pigs, ſome bananas, potatoes, *taro*, a great many cloths, ſome matts, a canoe fitted with an outrigger, and other ſmall articles made of feathers and ſhells.

At our arrival on board, our ſhips were driving, it blew very ſtrong from the E. S. E., and we were dropping down upon the iſland of Morokinna, which, however, was ſufficiently diſtant to admit of our hoiſting in our boats. I made the ſignal to weigh, but before we could get our anchor up, I was obliged to make ſail, and to drag it till I had paſſed the iſland, leſt I ſhould drive beyond the mouth of the channel. Had it unfortunately hooked in a rock, and had not the bottom been ſufficiently hard and level for it not to take hold, I ſhould have been obliged to cut the cable.

We had not done weighing our anchor till five in the afternoon, when it was too late to ſteer between Ranai and the weſt ſide of Mowee. Though it was a new channel which I was deſirous to reconnoitre, prudence

prudence forbad my attempting it by night. Till eight o'clock we had baffling light airs, with which we could not make half a league. At length the wind ſettled at N. E. when I ſteered weſt, paſſing at an equal diſtance from the N. W. point of the iſland of Tahoorowa, and the S. E. point of Ranai. At daybreak I ſtood in for the S. W. point of the iſle of Morotoi, which I coaſted at three-fourths of a league diſtance, and came out, as the Engliſh did, by the channel between the iſlands of Wohaoo and Morotoi. The latter did not appear inhabited on the ſide next us, though, according to the Engliſh, it is very populous on the other. It is remarkable, that in theſe iſlands, the moſt fertile and ſalubrious, and conſequently the moſt inhabited parts are always to windward. Our iſlands of Guadaloupe, Martinico, &c. are ſo perfectly ſimilar to this new cluſter, that every thing appeared abſolutely the ſame, at leaſt, in regard to navigation.

Meſſrs. Dagelet and Bernizet ſurveyed, with the minuteſt care and attention, all the parts of Mowee and Morokinna we coaſted, which the Engliſh were unable to do with accuracy, becauſe never within ten leagues of the land.

On the 1ſt June, at ſix in the morning, we were clear of all the iſlands, having employed leſs than 48 hours in theſe ſurveys, and, at moſt, a fortnight to eſtabliſh a geographical point of the greateſt importance, as it removes from our maps five or ſix iſlands which have no real exiſtence. The fiſh that followed us from the neighbourhood of Eaſter Iſland to our laſt anchorage now diſappeared; and it is worthy of remark, that the ſame ſhoal of fiſh accompanied us 1500 leagues. Several bonitas, wounded by our fiſh-gigs, * bore marks impoſſible to be miſtaken, and we thus recognized each morning the identity of the

* A ſmall harpoon.

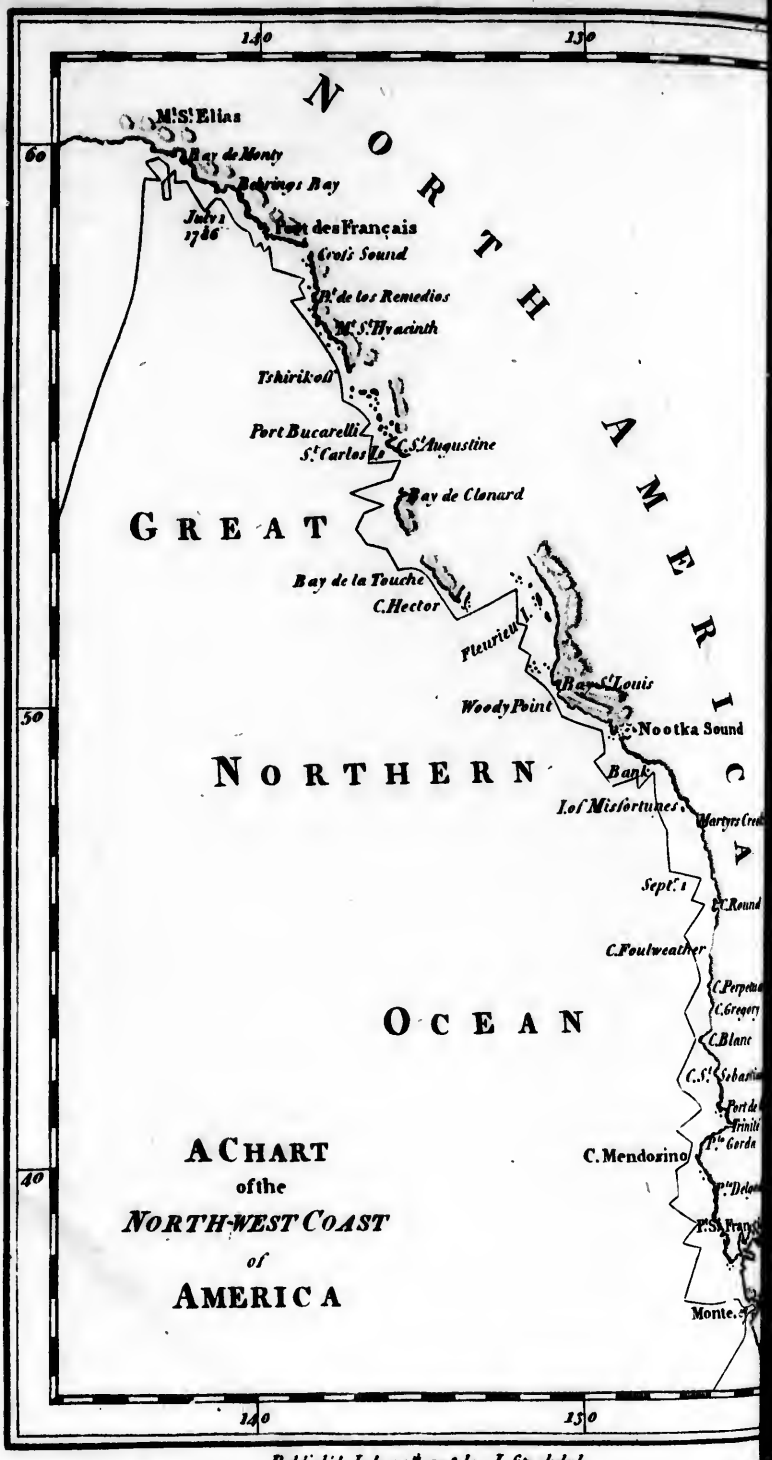
fiſh we had obſerved the preceding evening. Doubtleſs, had we not put in at the Sandwich iſlands, they would have followed us 2 or 300 leagues further, till the climate became irreſiſtible.

CHAP. VII.

DEPARTURE FROM SANDWICH ISLANDS—SIGNS OF APPROACHING THE COAST OF AMERICA—DESCRIED MOUNT ST. ELIAS—DISCOVERY OF THE BAY OF MONTI—OUR BOATS RECONNOITRE THE MOUTH OF THE GREAT RIVER BEHRING, AND A VERY DEEP BAY—THE FAVOURABLE REPORT OF SEVERAL OF OUR OFFICERS INDUCES US TO PUT INTO IT—DANGERS INCURRED IN ENTERING—DESCRIPTION OF THIS BAY WHICH I NAMED FRENCHMAN'S BAY AND PORT—MANNERS AND CUSTOMS OF THE INHABITANTS—BARTER WITH THEM—JOURNAL OF TRANSACTIONS DURING OUR STAY.

THE eaſterly winds continued till we arrived in 30° N. lat. directing our courſe to the northward with fine weather. The freſh proviſions we had procured during our ſhort ſtay at the Sandwich Iſlands, enſured ſalubrious and agreeable food for our crews during three weeks, though it was impoſſible to keep our pigs alive for want of water and victuals. I was therefore obliged to have them ſalted in Captain Cook's method. Theſe pigs being very ſmall, the largeſt not exceeding 20lbs weight, they would have been ſoon corroded, and their ſubſtance partly deſtroyed, if long expoſed to the activity of ſalt, for which reaſon we were obliged to conſume them firſt.

On the 6th June, in 30° N. lat. the wind ſhifted to S. E. The ſky became watery and dull; every thing



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thing announced that we had quitted the track of the trade-winds: I found we ſhould ſoon regret the loſs of that ſerene weather which had maintained our health, and by favour of which we had every day made obſervations of the moon's diſtance from the ſun, or, at leaſt, compared the true time of the meridian with that of our time-keepers.

My fears were too ſpeedily realiſed. The fogs commenced on the 9th June, in 34° N. lat. without a clear interval till the 14th, in 41°. I almoſt thought the ſeas, which divide Europe from America, leſs foggy, but it would be an error irrevocably to adopt this opinion; for the fogs of Nova Scotia, Newfoundland, and Hudſon's Bay, enjoy an inconteſtible pre-eminence of opacity, though they can ſcarcely vie with their unequalled humidity. This rain of fog penetrated every ſailor's baggage, which not a ſolar ray flattered us with the proſpect of drying; and I knew, by melancholy experience in my voyage to Hudſon's Bay, that this frigid humidity was the moſt eſſential cauſe of ſcurvy. Although no ſymptoms yet appeared, yet ſo long a continuance at ſea muſt have prediſpoſed us all to that diſorder. I therefore ordered large braziers to be placed under the half-deck, and between decks where the ſeamen lay; I gave each a pair of boots, and diſtributed the ſtuff waiſtcoats and breeches I had kept in reſerve ſince our departure from Cape Horn.

My ſurgeon, who ſhared M. de Clonard's attention to the crew, propoſed to mix with the morning allowance of grog * a ſlight infuſion of bark, which, without perceptibly altering its taſte, might produce the moſt ſalutary effects. I ordered this mixture to be ſecretly performed, as the crew would otherwiſe certainly refuſe it; but as it was unperceived, no objection aroſe to this practice, which would doubt-

* The French Narrator explains in a note, that this grog was a mixture of one part of *brandy* and two parts water.

leſs

leſs have been ſtrenuouſly oppoſed, had it been ſubmitted to the general opinion.

Theſe precautions, though crowned with perfect ſucceſs, engroſſed not our leiſure during our long paſſage. My carpenter, following the plan formed by M. de Langle, conſtructed a corn-mill, which became extremely uſeful.

The inſpectors of proviſions, convinced that baked grain keeps better than either flour or biſcuit, recommended our taking out a conſiderable ſtock of corn, which we augmented in Chili. We were furniſhed with mill-ſtones 24 inches in diameter, and 4½ thick, requiring four men to put them in motion. Being aſſured that M. de Suffren had no other machinery for his whole ſquadron, we could not doubt they were ſufficient for our little equipment. But when we began to uſe them, our baker obſerved the corn was merely bruiſed, while four men, though relieved every half hour, only produced 25lb. of ill-ground flour per day. As our corn ſupplied near half our ſubſiſtence, we ſhould have experienced the greateſt embarraſſment, had not the inventive genius of M. de Langle, with the aſſiſtance of a ſailor, formerly a journeyman miller, contrived a ſpecies of wind-mill adapted to our purpoſe. At firſt he employed, with ſome degree of ſucceſs, ſails turned by the wind, but ſoon ſubſtituted a winch, and obtaining as perfect flour as that of ordinary mills, ground two hundred weight per day.

On the 14th the wind ſhifted to W. S. W. The following meteorological obſervations are the reſult of our long experience. The ſky is generally clear when the wind is only a few degrees to the northward of weſt, and the ſun appears on the horizon: from W. to S. W. cloudy, with ſome little rain: from S. W. to S. E., and even to eaſt, hazy weather and extreme humidity, penetrating into the cabins and every part of the ſhips. Thus a reference to the ſtate

ſtate of the winds will always convey to the reader the ſtate of the atmoſphere, and be a uſeful guide to thoſe who may ſucceed us in this navigation. Should readers, who amuſe themſelves with our adventures, take an intereſt in thoſe who have experienced the difficulties and fatigues attending them, they will not, perhaps, contemplate with indifference, navigators who, beyond the limits of the habitable world, and after a continual conteſt with fogs, bad weather, and ſcurvy, have explored an unknown coaſt, the theatre of each romance *, that has found too eaſy a reception among modern geographers †.

This

* Such as the voyage of Admiral Fuentes, and the pretended expeditions of the Chineſe and Japaneſe on that coaſt.

† However extraordinary the accounts of the voyage performed by Admiral Fuentes, or de Fonte may appear, we cannot venture wholly to reject them, when we compare his chart of diſcoveries with thoſe of Cook, La Pérouſe, Dixon, and Meares. It appears by the diſcourſe pronounced by Buache before the Academy of Sciences, that Lorencio Ferrer de Maldonado found a north paſſage by entering a ſtrait in Hudſon's Bay, which is the ſame as that which Admiral de Fonte fell in with when coming from the South Seas, and laid down in the French charts as *Repulſe Bay*. The voyage of Maldonado appears authentic, and is dated 1588, that of Admiral de Fonte 1640, and unleſs it be proved, that he knew of the former expedition, and made that the baſis of a romance, the coincidence between them muſt ſtill leave ſome doubts; and, in geography, every doubt ſhould be perpetuated, till it yields to the moſt incontrovertible proofs.

Neither the diſcourſe of Buache, nor the Spaniſh voyage which formed its baſis, are yet printed. Thoſe who wiſh to know all the diſputes to which the voyage of Admiral de Fonte gave birth, will find them in the following works.

Explication de la carte des nouvelles découvertes au nord de la mer du Sud. *Par de Liſle, &c. Paris*, 1752.

Conſidérations géographiques et phyſiques ſur les nouvelles découvertes au nord de la grande mer, appelée vulgairement la mer du Sud. *Par Philippe Buache, &c. Paris*, 1753.

Nouvelles Cartes des découvertes de l'amiral de Fonte, &c. *Par de Liſle, &c. Paris*, 1753.

Lettre d'un officier de la marine ruſſienne à un ſeigneur de la cour, *&c. A Berlin.*

Obſervations critiques ſur les nouvelles découvertes de l'amiral Fuentes, *&c. Par Robert de Vaugondy, fils, &c. Paris*, 1753.

Journal

This part of America, as far as mount St. Elias, in 60°, was merely descried at a distance by Captain Cook, except the port of Nootka, where he put in. But from that mountain to the point of Alaska and frozen Cape, this celebrated circumnavigator kept in with the coast with all the perseverance and courage he was known by all Europe to possess. Indeed the exploration of that coast of America, from Mount St. Elias to the port of Monterey, though a most interesting object to navigation and commerce, required many years to perform; and we were aware, that in the two or three months which the season, and the vast plan of our voyage, permitted us at most to devote to it, we should leave many objects to be investigated by future navigators. Many ages, perhaps, will elapse, before every bay and port of this part of America is perfectly known. But the true direction of the coast, the determination of the latitude and longitude of its most remarkable points, will attach to our labours a utility which no seaman will dispute.

Since our departure from the Sandwich Islands, and till our making Mount St. Elias, the wind was fair without a moment's interruption. As we approached the land we saw sea weed float by, of a species absolutely new to us, consisting of a pipe 40 or 50 feet long, terminating in a ball of the size of an orange, and resembling the stem of an overgrown onion. Whales of the largest species, divers, and gulls, announced the approach of land, which, at length, we descried on the 23d, at four in the morning, when the fog dispersing, permitted us suddenly to perceive a long chain of mountains covered with snow, which we might have seen in clear weather at the distance of 30 leagues further out. We then re-

Journal historique, Mémoires pour l'histoire des sciences et des beaux arts, Journal des Savans, Journal économique, *pour l'année* 1753.—*French Editor.*

cognized

cognized de Behring's Mount St. Elias, whoſe ſummit appeared above the clouds.

The ſight of land, which uſually produces agreeable ſenſations after a tedious navigation, cauſed in us but little effect; for the eye found no pleaſure or repoſe on maſſes of ſnow, which covered a naked and barren ſoil. Theſe mountains appeared at ſome diſtance from the ſea, which broke on a flat 150 or 200 toiſes high. This black platform, as if calcined by fire, deſtitute of every approach to verdure, afforded a ſtriking contraſt with the whiteneſs of the ſnow which we perceived through the clouds, and ſerved as a baſis to a long chain of mountains that ſeemed to extend 15 leagues from eaſt to weſt. At firſt we thought them very near us, their ſummits appearing as it were above our heads, the ſnow ſpreading a light extremely deceitful to eyes unaccuſtomed to it. But advancing nearer, we perceived below the platform low lands covered with foliage, which we miſtook for iſlands, where we expected to find ſhelter for our ſhips, and wood and water for the crews. I propoſed, therefore, to reconnoitre theſe iſlands at a very ſmall diſtance, favoured by the eaſt winds that blow along the coaſt. But they preſently chopped about to the ſouthward, the atmoſphere became very black in that quarter of the horizon, and I thought it better to wait for more favourable weather, and haul cloſe to the wind which blew dead on the ſhore. We had found ourſelves at noon in 59° 21′ N. lat. by obſervation, and 143° 23′ W. long. by our time-keepers. A thick fog covered the land throughout the day on the 25th, but on the 26th the weather was very fine, and the coaſt was viſible, with all its windings, at two in the morning. I ranged along it at a diſtance of two leagues, the depth of water being 75 fathoms, with a bottom of ſoft mud. I was very deſirous of meeting with a harbour, and was ſoon flattered with the belief that I had found one.

I have

I have already ſpoken of a platform 150 or 200 toiſes high, forming the baſis of immenſe mountains ſome leagues in land. We ſoon perceived to the eaſtward a low point, covered with trees, which ſeemed to extend as far as this plain, and terminate at a diſtance from a ſecond chain of mountains further to the eaſtward. We all unanimouſly agreed, that the platform terminated at the low point of land covered with trees, that it was an iſland ſeparated from the mountains by an arm of the ſea, and that it muſt lie eaſt and weſt like the coaſt, and, conſequently, we ſhould find in that imaginary channel a commodious ſhelter for our ſhips.

I ſteered for this point, keeping our lead going, and found the ſmalleſt depth of water 45 fathoms, over a muddy bottom; when, at two in the afternoon, I was obliged to anchor on account of the calm. The wind had been very faint throughout the day, varying from weſt to north. We had obſerved at noon, 59° 41′ N. lat., and our time-keepers gave 143° 3′ W. long., at three leagues to the S. E. of the woody point, which I continued to miſtake for an iſland. At ten in the morning I had diſpatched my long boat under the command of M. Boutin, to reconnoitre this channel or bay, and Meſſrs. de Monti and de Vaujuas had left the Aſtrolabe on the ſame purſuit, while we lay at anchor waiting their return. The ſea was unruffled, the current ſet to the S. S. W. at the rate of half a league an hour, which confirmed me in the opinion, that if the woody point was not the mouth of a channel, it muſt at leaſt be that of a great river.

The barometer had fallen one-fourth of an inch in 24 hours, the ſky was very black, and every thing announced that bad weather would ſoon ſucceed the dead calm which had obliged us to come to an anchor. At length, about nine o'clock, our three boats returned, and the officers declared there was neither a channel nor a river, but the coaſt formed a conſiderable ſemi-

circular

circular receſs to the N. E. with 30 fathoms water, and a muddy bottom, but without ſhelter from any wind between S. S. W. and E. S. E. which are the moſt dangerous. The ſea broke with violence on the beach, which was covered with drift wood. M. de Monti had great difficulty in landing; and as he was the commandant in this little expedition, I called it the *Bay of Monti*. They added, that the cauſe of our miſtake was the woody point joining ſome land much lower than itſelf, and deſtitute of trees, which gave it the appearance of a termination. Meſſrs. de Monti, de Vaujuas, and Boutin, had taken the bearings of the different points of this bay, and the coincidence of their accounts left no doubt what to determine *. I made ſignal to weigh, and as very bad weather was coming on, I took advantage of a breeze from the N. W. to run to the S. E. and get off the coaſt.

* Doubtleſs it will appear extraordinary I ſhould controvert the opinion of three officers, and maintain that La Pérouſe could form a more accurate judgment of the coaſt from on board. It remains for the reader to weigh the proofs of my aſſertion; and ſhould any doubt ſtill remain, to conſult the voyage and charts of Dixon.

I maintain that the bay of Monti was the ſtation where Dixon anchored the 23d of May following, under which he was ſheltered from every wind by the projection of an iſland that forms a kind of mole, which he called Port Mulgrave.

Dixon ſays, page 166, "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."

And page 170, "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 witch hazle, and various "kinds of bruſh-wood."

Dixon fixes the latitude of Port Mulgrave at 59° 33′, and its long. W. from London 140°, equal to 142° 20′ from Paris. La Pérouſe fixes the latitude of Monti Bay at 59° 43′, and its long. 142° 40′.

If the three officers, commiſſioned by La Pérouſe to explore the bay, did not go to the head of it, it is not ſurpriſing they ſhould think it had a continuation of coaſt, or that the little iſlands in that part of it ſhould conceal the channel that ſeparates them from the continent.——*French Editor.*

The

The night was calm but foggy, the wind changing every moment. At length it ſettled in the eaſt, and blew very freſh from that quarter for 24 hours.

On the 28th the weather became finer. We were in 59° 19′ N. lat. by obſervation, and 142° 41′ W. long. by our time-keepers. The coaſt was covered with fog, and we could not diſtinguiſh the points we had ſet the preceding days. The wind was ſtill eaſterly, but the barometer roſe, and every thing announced a favourable change. At five in the evening we were but three leagues from land, in 40 fathoms water, over a muddy bottom; and the fog having partly diſperſed, we made ſketches from our bearings, which formed an uninterrupted continuation of our preceding ſurveys, and together with our ſucceeding obſervations moſt attentively performed, contributed to complete the general chart of our voyage. Navigators, and thoſe in particular who make geography their ſtudy, will perhaps be happy to learn, that to give ſtill further preciſion to the configuration and outline of the coaſts and remarkable points, M. Dagelet verified and corrected the bearings taken with the azimuth compaſs, by the mutual diſtances of the hills, meaſuring the relative angles they form with each other by a ſextant, and determining the elevation of the mountains above the level of the ſea. This method, though not rigorouſly exact, is yet ſufficient for navigators to judge by the height of a coaſt at what diſtance it is from them; and in this manner that learned academician has determined the height of Mount St. Elias to be 1980 toiſes, and its ſituation eight leagues in land *.

On the 29th of June we were, by obſervation, in 59° 20′ N. lat. and 142° 2′ W. long. by our time-

* Cook ſays, Mount St. Elias lies 12 leagues up the land, in 12° 27′ lat. and 219° longitude from the meridian of Greenwich. *Third Voyage*, vol. iii.——*French Editor.*

keepers,

keepers, having in 24 hours run eight leagues to the eaſtward. The ſouth winds and the fogs continued throughout the 29th, and the weather was clear till the 30th at noon; though at times we perceived low lands, but never more than four leagues diſtant. According to our reckoning we were five or ſix leagues to the eaſtward of the bay, called by Captain Cook Behring's Bay, and our ſoundings were conſtantly from 60 to 70 fathoms, with a muddy bottom. Our latitude, by obſervation, was 58° 55′, and our longitude, by the time-keepers, 141° 48′. I ſtood right in for the land, under a crowd of ſail, with ſome light airs from the W. S. W. We ſaw to the eaſtward a bay, which appeared very deep, and which I at firſt took for that of Behring. Having got within a league and a half of it, I diſtinctly perceived that the lowlands, like thoſe of the bay of Monti, were united to a more elevated ſoil, and that, in fact, there was no bay, though the water was whitiſh, and almoſt freſh, which, with every other circumſtance, announced the vicinity of a river, that muſt be very conſiderable to have changed the colour and the ſaltneſs of the ſea for two leagues in the offing. I made the ſignal to anchor in 30 fathoms, over a bottom of ſoft mud; and diſpatched the long-boat, under M. de Clonard, my ſecond captain, accompanied by Meſſrs. Monneron and Bernizet. M. de Langle had alſo ſent off his long-boat, together with his biſcayan yawl, under the command of Meſſrs. Marchainville and Daigremont. Theſe officers returned by noon, having kept along the ſhore as near as the breakers would permit. They diſcovered a ſand bank even with the water's edge, at the mouth of a great river, diſcharging itſelf into the ſea by two conſiderable channels, each having a bar, as at the river of Bayonne, on which the ſea broke ſo violently, that it was impoſſible for our boats to approach it. M. de Clonard ſpent five or ſix hours in an unſucceſsful attempt to

enter, though he discovered some smoke, which proved the country inhabited, while from our ship we perceived an unruffled sea beyond the bank, and a basin of several leagues in breadth and two in depth. It is probable that with smooth water, ships, or at least boats, may enter this gulph; but as the current is very strong, and as the sea becomes extremely rough, from one moment to another over the bars, the very appearance of this place is sufficient to deter navigators from approaching it. From the aspect of this bay I have been inclined to think it was here Behring landed; and it is more probable the loss of his boat's crew is to be attributed to the fury of the sea than the barbarity of the Indians*. I have retained the name of Behring's River, and am of opinion the strait of that name has no existence, but that Captain Cook, who passed at a distance of 10 or 12 leagues, rather conjectured than actually perceived it †.

On

* Here are two mistakes: first, it was Captain Tscherikow, not Behring, who lost his boats; secondly, this misfortune occured in 56° lat. according to Muller.——*Voyages et découvertes faites par les Russes*, page 248 of the French translation.——*French Editor.*

† There is no doubt the place which La Pérouse describes as Behring's river, is the Behring's Bay of Captain Cook. It remains only to be known, whether the change in the colour and saltness of the water is a sufficient proof that this bight in the land is a river, and whether the freshness of the water may not be occasioned by the enormous masses of ice continually falling from the mountains, while the colour may arise from the soil of the coast or of the beach, where the sea breaks with such fury.

But whether it be river or bay, or both (for bays being formed by mountains stretching into the sea, there may probably be a river or a torrent within), the identity of the place is proved in the following manner: Cook determined the opening of this bay to be in 59° 18′ of latitude, La Pérouse was to the westward of the bay, and made its latitude 59° 20′.

Cook's longitude, when on board, was 220° 19′ E. from the meridian of Greenwich, which makes 139° 41′ W. longitude, and adding 2° 20′ for the difference between the meridian of Greenwich

On the 1ſt of July, I got under ſail with a light breeze from the S. W. ranging along the land at the diſtance of two or three leagues. While at anchor, we were, by obſervation, in 59° 7′ N. lat. and 141° 17′ W. long. by our time-keepers, the entrance of the river bearing N. 17° E. and Cape Fair Weather E. 5° S. We ſteered along the ſhore with a light breeze from the W. at two or three leagues diſtance, and might have perceived the inhabitants by the help of our glaſſes had there been any; but the breakers appeared to render a landing impoſſible.

On the 2d, at noon, I had Mount Fair Weather bearing N. 6° E. being, by obſervation, in 58° 36′ N. lat. and by our time-keepers in 140° 31′ W. long. diſtance two leagues off ſhore. At two, a little to the eaſtward of Cape Fair Weather, we got ſight of a bight, which appeared a very fine bay, and ſtood in for it. When within a league of it, I ſent off the jolly-boat, under the command of M. de Pierrevert, to reconnoitre it, together with M. Bernizet. The Aſtrolabe alſo diſpatched two boats, commanded by Meſſrs. de Flaſſan and Boutervilliers, on the ſame purſuit. We perceived from on board a great ledge of rocks, behind which the ſea

wich and that of Paris, we have 142° 1′ W. for Cook's longitude from the meridian of Paris.

La Pérouſe fixes his longitude at 142° 2′, which makes only a difference of one minute, Capt. Cook was two leagues farther off from the coaſt.

Cook ſaw the opening of the bay bearing N. 47° E.

La Pérouſe, who was two leagues nearer the coaſt, ſaw that opening bearing N. 33° E.

Cook was eight leagues from the land, and found 70 fathoms water over a muddy bottom.

La Pérouſe was five or ſix leagues from the coaſt, and had conſtantly from 60 to 70 fathoms water, over a muddy bottom.

Had I not already proved my poſition to demonſtration, I would requeſt the reader himſelf to fix Capt. Cook's place on the map, on the 6th of May, 1778, and that of La Pérouſe on the 29th of June, 1786, and purſue their tracts, with due regard to the variation of the needle, as determined by thoſe two navigators. *French Editor.*

water was very ſmooth. This ledge appeared to be three or four hundred toiſes long from eaſt to weſt, and to terminate at about two cables length from the point of the continent, leaving a conſiderable opening; ſo that nature ſeemed to have formed, at the extremity of America, a port like that of Toulon, though both her plans and her materials were here exhibited on a more magnificent ſcale, for this port was three or four leagues in depth. Meſſrs. de Flaſſan and Boutervilliers gave the moſt favourable report of it; they had gone in and out of it ſeveral times, and found conſtantly ſeven or eight fathoms water in the middle of the channel, and five fathoms within 20 toiſes of each extremity, while in the interior of the bay there were 10 or 12 fathoms over a good bottom. From their report I determined to ſteer for the channel; and ſent our boats to ſound a-head, with orders, when we approached the points, to place themſelves one off each extremity, ſo that the ſhips might only have to paſs between them.

We ſoon perceived ſome ſavages making ſignals of friendſhip, by diſplaying and waving about white cloaks and various ſkins, in the manner of flags. Several canoes of theſe Indians were fiſhing in the bay, where the water appeared as ſmooth as a mill-pond, while the ledge was covered with ſurf by the breakers. The ſea was very calm, however, beyond the channel, and this afforded an additional proof that its depth was conſiderable.

At ſeven in the evening we attempted the paſſage, but the wind was faint and the ebb ſo ſtrong, that we could not poſſibly ſtem it. The Aſtrolabe was carried out with great rapidity, and I was obliged to anchor, leſt I ſhould be ſwept away by the current, of which I did not know the direction; but finding that it ſet towards the offing, I weighed anchor, and rejoined the Aſtrolabe, ſtill undecided what plan to purſue in the morning. This very rapid current, which

which our officers had not mentioned, checked my cagerneſs to put into this port. I was not ignorant of the great difficulties to be encountered in entering and at coming out of narrow paſſes, where the tides are very ſtrong; and, as it was neceſſary to employ the ſummer in exploring the coaſts of America, I feared a forced continuance in a bay, from which my departure might require the concurrence of many favourable circumſtances, would be extremely injurious to the ſucceſs of my expedition. However, I paſſed the night, ſtanding off and on, and, at day-break, I hailed M. de Langle, and communicated my opinion to him. But the report of his two officers was very favourable; for, having ſounded both the ſtrait and the interior of the bay, they repreſented, that although the current appeared ſo ſtrong, they had ſeveral times ſtemmed it with their boats. M. de Langle therefore eſteemed this port very commodious, and his reaſons appeared ſo convincing, that I could not withhold my aſſent.

This port, which had been diſcovered by no former navigator, is ſituated 33 leagues to the N. W. of that of *Los Remedios*, which is the extreme boundary of the navigation of the Spaniards, about 224 leagues from Nookta, and 100 leagues from Prince William's Sound. Should the French government therefore entertain any deſign of eſtabliſhing a factory on this part of the American coaſt, other nations cannot claim the ſmalleſt right of oppoſition *. The ſmoothneſs of the

* Since La Pérouſe explored the north weſt coaſt of America, from Mount St. Elias to Monterey, two Engliſh navigators have taken the ſame route, though merely with commercial views.

Dixon ſailed from England in September 1785, in the Queen Charlotte, accompanied by Captain Portlock, in the King George, and anchored at Owhyhee, one of the Sandwich Iſlands, the 26th May 1786. La Pérouſe paſſed by Owhyhee the 28th of the ſame month; anchored at Mowee on the next day, and, quitting it on the 30th, got ſight of Mount St. Elias on the 23d June, 1786: while Dixon quitted Owhyhee June 13th, and having ſteered for Cook's River,

the inner part of this bay was very ſeducing to us, who were in abſolute neceſſity of changing our ſtowage almoſt entirely, in order to get up ſix guns from the bottom of the hold, without which, it would be very imprudent to navigate ſeas * ſo frequently infeſted with pirates as thoſe of China. To this place I gave the name of *Port des Français*, or Frenchmen's Port.

At ſix in the morning we ſtood for the bay with the laſh of the flood, the Aſtrolabe preceded me, and a boat, as on the preceding evening, was ſtationed off each point. The wind was between weſt and W. S. W., the entrance lies north and ſouth. Thus every thing appeared favourable. But at ſeven, when we were already in the channel, the wind ſhifted to W. N. W. and N. W. by W. ſo that it was neceſſary to ſhiver the ſails, and even to throw all a-back. Fortunately the flood-tide carried us into the bay, ſetting us along the rocks on the eaſt point, at the diſtance of half a piſtol ſhot. I anchored within the bay, in three fathoms and a half, over a rocky bottom, about half a cable's length from the ſhore. The Aſtrolabe anchored upon a ſimilar bottom, and in an equal depth of water.

did not arrive at the north weſt coaſt of America till the 8th September, which he ranged along from the entrance of Croſs Sound to that of Nootka, without being able to come to an anchor. Leaving that coaſt on the 28th of the ſame month, he returned to the Sandwich Iſlands, and not till the 23d of May, in the following year, made Mount St. Elias, and caſt anchor in port Mulgrave. The priority of La Pérouſe is therefore fully eſtabliſhed.

Dixon, before his departure from London, was appriſed of the expedition from France, but never falling in with the French ſhips, was ignorant of their diſcoveries.

Captain Meares, in the Snow Nootka, ſailed from Bengal in March 1786; touched at Oonolaſka in Auguſt, and, by the end of September, arrived at the entrance of Prince William's Sound, where he wintered: and it was not till 1788 and 1789, that he ran down the coaſt of America. Of his voyage there is yet no French tranſlation.—*French Editor.*

* We were to arrive China in the beginning of February.

During

During thirty years experience at ſea, I never ſaw two ſhips ſo near deſtruction; and to meet that fate at the extremity of the earth, would have rendered our misfortune ſtill more tragical; but we were now out of danger. Our boats were inſtantly hoiſted out, and carried out our ſmall anchors; and before the tide had perceptibly fallen, we warped into ſix fathoms water; yet our heel touched ſeveral times, but ſo ſlightly as not to damage the ſhip. Our ſituation would not have been at all difficult, had we not anchored on a bottom of rock, extending ſeveral cables length round us, very differently from the report of Meſſrs. de Flaſſan and Boutervilliers. This, however, was no time for reflection. It was neceſſary to quit this dangerous anchorage, to which the rapidity of the current was a conſiderable obſtacle, and its violence obliged me to drop a bower anchor. I feared each moment leſt the cable ſhould part, and our ſhip drive on ſhore; and our uneaſineſs was much increaſed, when the wind freſhened much from the W. N. W. Thus our ſhip was cloſe in with the land, and her ſtern very near the rocks, from which it was impoſſible to think of towing her. I therefore ſtruck the top gallant maſts, and waited for the foul weather to ceaſe, which would have been leſs dangerous, had we even anchored in better ground.

I ſent immediately to ſound the bay, whence M. Boutin very ſoon returned with an account, that he had found an excellent bed of ſand in ten fathoms water, four cables length to the weſtward of our anchoring place; but that further up the bay to the northward, he could not ſtrike ground with a line of 60 fathoms, except within half a cable of the ſhore, where he found 30 fathoms with a muddy bottom. He informed me alſo, that the north weſt wind did not penetrate into the inner part of the harbour, where it was abſolutely calm.

M. d'Eſcures had been diſpatched, at the ſame time, to explore the head of the bay, of which he gave the moſt favourable account. He had gone round an iſland, near which was anchorage in 25 fathoms water, over a muddy bottom. No place could be more convenient for erecting our obſervatory; wood already cut lay ſcattered along the ſhore, and caſcades of the fineſt water rolled from the ſummits of the mountains into the ſea. He had penetrated to the head of the bay, two leagues beyond the iſland which was covered with ice, and perceived the entrance of two vaſt channels; but, being eager to render an account of his miſſion, he did not ſtay to examine them. After this account, the poſſibility of penetrating by theſe channels into the interior of America preſented itſelf to our imagination. The wind having fallen by four P. M. we towed up to the ſand-bank which M. Boutin had diſcovered, and the Aſtrolabe was enabled to get under ſail, and gain the anchorage of the iſland. I rejoined her the next day, being favoured with a light breeze from the E. S. E. and aſſiſted by our boats.

During the ſtay we were compelled to make at the entrance of the bay, we had been conſtantly ſurrounded by canoes of ſavages, who, in exchange for our iron, offered us fiſh, otter ſkins, with thoſe of other animals, and various ſmall articles of their apparel. To our great aſtoniſhment, they appeared perfectly accuſtomed to traffic, and made their bargains with as much addreſs as the moſt able dealers of Europe, but of all the articles of commerce, iron alone was deſired with eagerneſs; ſome glaſs beads were alſo taken, tho' rather as a makeweight to conclude a bargain, than as the baſis of our exchanges. At length we induced them to take ſome plates, and tin pots, but theſe articles ſucceeded only for a time, and iron was paramount to all. This metal was not unknown to them, for each had a dagger of it hanging from

from his neck, reſembling, in ſhape, that of the Indian *cry*; but without any ſimilarity in the handle, which was only a continuation of the blade, rounded off without an edge. This weapon is kept in a ſheath of tanned leather, and ſeemed the moſt valuable article of their poſſeſſions. As we examined theſe poignards very attentively, they informed us by ſigns that they were only uſed againſt bears and other beaſts of the foreſt. Some were of red copper, but to theſe they ſhowed no marks of preference. This metal is very common among them, being uſed chiefly for collars, bracelets, and other ornaments, and to arm the points of their arrows.

It was a great queſtion with us where they procured theſe two metals. Native copper might poſſibly be found in this part of America, and the Indians might reduce it into flat plates and ingots: but native iron has no exiſtence perhaps in nature, or at leaſt is ſo rare, that the greater number of mineralogiſts have never ſeen it. * Theſe people cannot be ſuppoſed acquainted with the method of reducing iron ore to the metallic ſtate; and beſides we had obſerved the very day of our arrival ſome bead-necklaces and trinkets in braſs, which every one knows

* Virgin or native iron is very rare, yet ſome is found in Sweden, Germany, Senegal, Siberia, and the iſland of the Elbe. I have found it at the village of *Erba Longa*, two leagues north of Baſtia, the capital of Corſica. It pervaded, in great profuſion, the maſs of a rock ſituated on the ſea ſide, and was conſtantly of an octaëdral form. The exiſtence of native iron is further proved by the ſpecimens in moſt of the cabinets of Natural Hiſtory, and by the opinion of Stahl, Linnæus, Margraff, &c.

Since, therefore, iron mines exiſt in America, it may alſo contain native iron: though I do not from thence infer, that the iron ſeen by La Pérouſe among theſe Indians had that origin. I am of opinion with Cook, they might obtain it either from the Ruſſians who come from Kamtſchatka, and extend their commerce thither, or by their connection with the interior tribes, who receive it from our eſtabliſhments on the north eaſt coaſt of America.—*French Editor.*

to

to be a mixture of copper and zinc *. Every circumſtance, therefore, indicated that the metals we ſaw came either from the Ruſſians, from the ſervants of the Hudſon's Bay Company, from ſome American dealers, who travel into the interior of that vaſt continent, or, laſtly, from the Spaniards; but I ſhall hereafter ſhew it to be more probable theſe metals are procured from the Ruſſians. We have preſerved ſeveral fragments of this iron, which is very ſoft, and as eaſily cut as lead †; from which, perhaps, it is not impoſſible but mineralogiſts may diſcover the country, and even the mine where it is produced.

Gold itſelf is not more eagerly deſired among Europeans than iron in this part of America, which is an additional proof of its rarity. In fact, each individual poſſeſſes but a ſmall quantity, and they purſue it with ſo much avidity, that they employ every means to procure it. On the very day of our arrival, we were viſited by a Chief of the principal village, who, before he came on board, apparently addreſſed a prayer to the ſun, and afterwards made a long harangue, which concluded with agreeable ſongs, very ſimilar to the chanting in our cathedrals, and accompanied by all the Indians in the canoe, who repeated the ſame air in chorus. After the ceremony, almoſt the whole company came on board,

* Red copper fuſed with zinc forms pinchbeck; but to obtain braſs it muſt be fuſed with calimine.

This laſt mentioned mineral undoubtedly contains a portion of zinc, but it alſo contains an earth, ſome ſand, martial ochre, and not unfrequently galena or ſulphure of lead. That which contains little zinc is, however, unfit for making braſs.

The ſemi-metal zinc when impure, may alſo contain pyrites both of ſulphure and iron, as well as lead, pſeudo-galena, and a very hard, earthy ſubſtance.

Thus, therefore, it appears, that by fuſing red copper with pure zinc, a very different metal is obtained from that produced by fuſing it with calamine.——*French Editor.*

† This quality indicates a virgin or native iron.—*French Editor.*

and

and danced nearly an hour, ſinging at the ſame time, which they do with great accuracy. To this Chief I made ſeveral preſents, till he became very troubleſome, paſſing four or five hours every day on board. I was obliged to renew my donations very frequently, for without them he looked diſcontented, and murmured threats, which however gave us no alarm.

No ſooner had we taken up our ſituation behind the iſland, than almoſt all the ſavages of the bay flocked thither; and the noiſe of our arrival having ſoon ſpread in the neighbourhood, ſeveral canoes came loaded with otter-ſkins, in very conſiderable quantities, which the Indians exchanged for hatchets, and bar iron. They gave us their ſalmon at firſt for old hoops, but they ſoon became more ſcrupulous; and we could only procure that fiſh in exchange for nails, or ſome other ſmall inſtruments of iron. There is, I think, no country where the ſea-otter is ſo common as in this part of America; and I ſhould not be ſurprized if a factory, extending its commerce only about 40 or 50 leagues along the coaſt, ſhould collect annually 10,000 ſkins of that animal. M. Rollin, ſurgeon of my ſhip, ſkinned, diſſected, and ſtuffed the only otter we were able to procure, which unfortunately was but four or five months old, and weighed only eight pounds and a half. The Aſtrolabe caught one, which had evidently eſcaped from the ſavages, for it was ſeverely wounded, though it appeared full grown, and weighed 70 pounds. M. de Langle had it ſkinned, in order to ſtuff it, but being at the critical moment of our entering the bay, that operation was not performed with ſufficient care, and we were unable to preſerve either the head or the jaw.

The ſea otter is an amphibious animal, better known by the beauty of its ſkin than any other deſcription. The Indians of *Port des Français*, call them

them *ſkecter*; the Ruſſians, *colry-merſky* *, diſtinguiſhing the females by the word *maſka*. Some naturaliſts have ſpoken of it under the name of *faricovіana*, but the deſcription of the *faricovienne*, of M. de Buffon, in no reſpect applies to this animal, which reſembles neither the otter of Canada nor of Europe.

On our arrival at our ſecond anchoring place we ſet up our obſervatory on the iſland, which was but a muſket-ſhot from our ſhips, and there formed an eſtabliſhment for the time of our ſtay in this port. We pitched tents for our ſail-makers and black-ſmiths, depoſiting there our water-caſks, which we ſet up afreſh. As all the Indian villages were upon the continent, we flattered ourſelves with reſting in ſecurity upon the iſland; but experience ſoon proved us to be miſtaken. Though we had already found the Indians were great thieves, we did not ſuppoſe them capable of executing long and difficult projects with perſeverance and activity. We ſoon learned to know them better. They paſſed the whole night watching a favourable moment to plunder us; but we maintained a conſtant watch on board, and rarely could they elude our vigilance. I even eſtabliſhed the Spartan law, to puniſh thoſe who were unwary enough to be plundered; and though we applauded not the robber, we demanded no reſtitution, that we might avoid quarrels, the tragical conſequences of which might afford cauſe for regret. I was aware that our extreme lenity would render them inſolent, though I endeavoured to convince them of the ſuperiority of our arms, by firing a gun ſhotted in their preſence, to ſhew them no diſtance could protect them; and diſcharged a muſket-ball, before a large company of them, through ſeveral folds of a

* According to Coxe, *bobry-morſky*, or ſea-caſtor; the female *matka*; and the young, when under five months, *medvicdky*, &c. *French Editor.*

cuiraſs

cuiraſs we had purchaſed of them, after their expreſſing by ſigns, that it was impenetrable to arrows and poignards, while our ſkilful ſportſmen killed the birds that flew above their heads. I am certain they never hoped to inſpire us with fear, but their conduct proved that they believed our patience inexhauſtible. They preſently obliged me to remove our eſtabliſhment from the iſland, where they landed in the night, on the ſide neareſt the offing, traverſed a wood impenetrable to us even by day, and creeping on their bellies, like ſerpents, moving ſcarcely a leaf as they went, contrived to plunder ſome of our effects without being perceived by the ſentinels. They had even the addreſs to enter in the night the tent where Meſſrs. de Lauriſton and Darbaud, who were on guard at the obſervatory, ſlept, and carried off a muſket mounted in ſilver, and both their clothes, though placed under their bolſter for ſecurity. A guard of twelve men did not perceive them, nor were their officers awakened. We ſhould however have regretted this loſs but little, had they not taken the original papers of all our aſtronomical obſervations ſince our arrival in *Port des Français*.

Theſe obſtacles did not prevent our boats from getting wood and water; and all our officers were continually employed at the head of their ſeveral working parties. Their preſence, and the diſcipline they maintained, contributed to reſtrain the ſavages.

While we were making the ſpeedieſt arrangements for our departure, Meſſrs. Monneron and Bernizet took a plan of the bay, in a boat well armed. I could not ſpare any naval officers to accompany them, becauſe they were all employed; but I had determined that they ſhould, before our departure, verify the bearings of all the points, and lay down the ſoundings. We propoſed afterwards to devote 24 hours

hours to a boar-hunt, having perceived ſome tracks of that animal on the mountains, and immediately after ſet ſail, the advanced ſtate of the ſeaſon not permitting a longer ſtay.

We had already explored the bottom of the bay, which is perhaps the moſt extraordinary ſpot on the whole earth. To form an idea of it, we muſt imagine a baſin, the middle of which is unfathomable, ſurrounded by peaks of great height, covered with ſnow, without a blade of graſs to enliven this enormous chaos of rocks, condemned by nature to perpetual ſterility. I never ſaw a puff of wind ruffle the ſurface of the water, nor is it diſturbed but by enormous maſſes of ice, which often fall from five different glaciers, with a thundering noiſe that re-echoes from the fartheſt receſs of the ſurrounding mountains. The air is ſo tranquil, and the ſilence ſo undiſturbed, that the human voice and the ſea birds that lay among the rocks, are heard at the diſtance of half a league. We hoped to diſcover, at the bottom of the bay, channels that penetrated far into the interior of America. We ſuppoſed it might lead to ſome great river, of which the bed might lie between two mountains, and the ſource be one of the extenſive lakes to the north of Canada. Such was the phantom of our imagination. We got off in our two long-boats; Meſſrs. de Monti, de Marchainville, de Boutervilliers, and Father Receveur attended M. de Langle, while I was accompanied by Meſſrs. Dagelet, Boutin, St. Céran, Duché, and Prevoſt. We entered the weſternmoſt channel, where we found it prudent not to approach the ſhore, on account of the falls of ſtones and ice. At length, after advancing only a league and a half, we arrived at a *cul-de-ſac*, terminated by two immenſe glaciers. We were obliged conſtantly to remove the maſſes of ice with which the ſea was covered, to penetrate into this inlet, where the water was ſo deep, that a cable length from ſhore we found no

no bottom with a line of 120 fathoms. Meſſrs. de Langle, de Monti, and Dagelet, and ſeveral other officers, were deſirous to aſcend the glacier, when, after indeſcribable fatigues, and advancing to a diſtance of ſix miles, paſſing with great danger the deepeſt fiſſures, they only perceived a conſtant ſucceſſion of ice and ſnow, without any proſpect of a termination, but at the ſummit of Mount Fair-weather.

My long-boat remaining during this expedition upon the beach, a maſs of ice, which fell more than 400 toiſes from it, cauſed ſo great a diſturbance in the water, as to overſet the boat, and throw it a conſiderable diſtance on the ſkirts of the glacier. This accident, however, was preſently repaired, and we returned on board, after finiſhing, in a few hours, our expedition into the interior of America.

I had cauſed the eaſtern channel to be examined by Meſſrs. de Monneron and Bernizet. It terminated like our's, with two glaciers; and we both took draughts of the parts we had explored.

CHAP. VIII.

CONTINUATION OF OUR STAY IN PORT DES FRANCAIS —DREADFUL MISFORTUNE WHEN ON THE POINT OF DEPARTING—HISTORY OF THIS EVENT—RETURN TO OUR FIRST ANCHORAGE—DEPARTURE.

THE next day the Chief arrived on board better attended, and more decorated than uſual. After ſeveral ſongs and dances, he offered to ſell me the iſland where our obſervatory was fixed, reſerving, no doubt, for himſelf, and the other Indians, the right of plunder. It was by no means evident, that this Chief was proprietor of any land. The government of

of theſe people is ſuch, that the country muſt be the property of the whole people; yet, as many ſavages were witneſſes to this contract, I had a right to conclude they gave it their ſanction, and accepted the offer of the Chief, though I was perſuaded that the contract might be invalidated by various tribunals, ſhould the nation ever plead againſt us: for we had no proofs that the witneſſes were their repreſentatives, or the Chief the true proprietor. I gave, however, ſeveral ells of red cloth, ſome hatchets, iron in bars, and nails. I alſo gave preſents to all his ſuite. The bargain being thus concluded, I ſent to take poſſeſſion with the uſual formalities; burying a bottle which contained an inſcription to that effect, and with it one of the bronze medals ſtruck before our departure from France.

The principal object, however, of our putting into port, was obtained. Our guns were mounted, and our ſtowage completed, and we had taken on board as much wood and water as at our departure from Chili. No port in the world can afford more advantages for accelerating this employment, frequently ſo difficult in other countries. Caſcades from the tops of the mountains poured their limpid waters into our caſks as they lay in the boat, and wood ready cut was ſtrewed along a beach waſhed by an unruffled ſea. The plan of Meſſrs. de Monneron and Bernizet was completed, as well as the meaſure of the baſe-line by M. Blondela, by which Meſſrs. de Langle, Dagelet, and moſt of the officers, had trigonometrically meaſured the height of the mountains. We have only to regret the papers containing the obſervations of M. Dagelet, and even this misfortune was nearly repaired by means of the different notes we found. In ſhort, we conſidered ourſelves as the moſt fortunate of navigators, to have arrived at ſo great a diſtance from Europe, without one of our crew being ſick or exhibiting any ſymptoms of ſcurvy.

But

But the greateſt of misfortunes now awaited us, without the poſſibility of prevention by foreſight: and it is with the keeneſt ſenſations of grief I delineate a diſaſter a thouſand times more cruel than all the maladies or calamities of the moſt tedious voyage. I yield unwillingly to the duty I have undertaken, of relating an event which I will not deny to have given birth to feelings conſtantly ſucceeded by tears, and which can only be allayed by the ſoothing hand of time. Each object that preſents itſelf, each moment that paſſes, but recals the loſs we ſuffered, in circumſtances apparently the moſt ſecure from ſo great a misfortune.

I have already ſaid the ſoundings were to be laid down on the draught of Meſſrs. de Monneron and Bernizet, by the ſea-officers. Conſequently the yawl of the Aſtrolabe, under the orders of M. de Marchainville, was appointed to be in readineſs the next day. I prepared that of my ſhip, as well as the jolly boat, of which I gave the command to M. Boutin. M. d'Eſcures my firſt lieutenant, and knight of St. Louis, commanded the Bouſſole's yawl, and was chief of this little expedition. As his zeal, however, appeared ſometimes too unbounded, I deemed it prudent to commit his inſtructions to writing: and the details of prudence I required were ſo minute, that he aſked if I took him for a child, adding he had commanded ſhips of the line. I explained my motives in a friendly manner, telling him, M. de Langle and myſelf had ſounded the channel of the bay two days before, and that I found the officer who commanded the ſecond boat that accompanied us, had paſſed too near the point, on which he had even touched; adding, that young officers eſteem it a point of etiquette, during a ſiege, to aſcend the parapet of the trenches, and that the ſame ſpirit induces them to brave the rocks and breakers they encounter at ſea: whereas this inconſiderate courage might

occaſion the moſt fatal effects in an expedition like ours, where ſimilar dangers occur every moment. After this converſation I delivered him the following inſtructions, which I read to M. Boutin. They will explain his miſſion, and my precaution, better than a long diſſertation.

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

" Before I declare to M. d'Eſcures the object of his " miſſion, I premiſe that he is expreſsly charged not to " expoſe the boats to any danger, or approach the chan- " nel, ſhould the ſea break there. He will ſet off at " ſix in the morning, with two other boats under the " command of Meſſrs. Marchainville and Boutin, " and ſound the bay from the little creek to the eaſt- " ward of the two *Mammelon* or forked hills. He will lay " down the ſoundings on the chart I have delivered " him, or ſketch one himſelf, from which they may be " transferred. Should the ſea not break in the chan- " nel, but only have a ſwell, as this work is not preſſ- " ing, he may defer the ſounding it till another day, " for he will remember that all operations of this " nature, when performed with difficulty, are ill exe- " cuted. Probably the beſt time to approach is at " ſlack water, about half paſt eight. Should cir- " cumſtances at that time be favourable, he will " endeavour to meaſure its width by a log-line, " and place the three boats in parallel directions, " ſounding acroſs the channel from eaſt to weſt. He " will afterwards ſound it from north to ſouth. But it " is ſcarcely probable he can take theſe ſecond ſound- " ings the ſame tide, becauſe the current will have " acquired too much ſtrength.

" While M. d'Eſcures is waiting for ſlack water, " he will ſound the interior of the bay, particu- " larly the creek behind the *Mammelons*, where, I " am of opinion, there is very good anchorage. He

" will

"will endeavour alſo to lay down on the plan the "limits of the rocky ground and ſandy bottom, in "order to make the good ground perfectly known. I "am of opinion, that where the channels to the "ſouthward of the iſland appear open, towards the "point of the Mammelons, there is a good ſandy "bottom. M. d'Eſcures will verify this conjecture. "But I again repeat, that I requeſt him not in the "leaſt to relax from the ſevereſt prudence."

After ſuch inſtructions delivered to a man 33 years old, who had commanded men of war, what danger could I fear? How many pledges of ſecurity did I not poſſeſs?

Our boats put off according to my directions, at ſix in the morning, on an expedition which was at once a party of pleaſure, of information, and of utility. They were to hunt, and then breakfaſt beneath the foliage of the trees. I aſſociated with M. d'Eſcures, M. de Pierrevert, and M. de Montarnal, the only relation I had in the navy, and to whom I was attached as tenderly as if he were my ſon. Never did a young officer afford me a warmer hope, and M. de Pierrevert had already acquired what I expected the former very ſpeedily to attain.

The ſeven beſt ſoldiers of the detachment compoſed the crew of this yawl, in which the chief pilot of my ſhip alſo embarked to take the ſoundings. The next in command to M. Boutin in the jolly-boat was lieutenant M. Mouton. The Aſtrolabe's boat was commanded by M. de Marchainville, but I was uninformed whether accompanied by other officers.

At ten o'clock our jolly boat returned. Surpriſed at this unexpected diſpatch, I enquired of M. Boutin before he came on board, if any thing had happened; fearing, at firſt, ſome attack of the ſavages. M. Boutin's manner increaſed my alarm, for I obſerved the deepeſt expreſſion of grief in his countenance. He immediately informed me of the dread-

ful wreck he had juſt witneſſed, He had himſelf eſcaped but by the firmneſs of his mind, which preſented to him all the reſources that remained in the midſt of the greateſt danger. Obliged to follow his commander into the midſt of the breakers which ſet into the channel, while the tide was running out at the rate of three or four leagues an hour, it occurred to him to lay his boat's ſtern to the ſea which thus puſhed her forwards, ſo as to avoid filling while ſhe was driven out of the harbour, ſtern foremoſt, by the tide. He ſoon ſaw the breakers a-head of his boat, and found himſelf in the open ſea. More anxious for the ſafety of his comrades than his own, he ſkirted the breakers in hopes to ſave ſome of them. Though he repeated his attempt, he was ſtill driven back by the tide, till at length mounting on the ſhoulders of M. Mouton to command a more extenſive view, he found his exertions in vain. All had diſappeard, all were ſwallowed up! and M. Boutin re-entered at ſlack water. The ſea then became ſmooth, and this officer entertained ſome hope of the Aſtrolabe's yawl; having only ſeen ours go down. M. de Marchainville was at that time a full quarter of a league from any danger, in a ſea as perfectly undiſturbed as the beſt ſheltered port. But that young officer, urged by too imprudent a generoſity, ſince all aſſiſtance was impoſſible, and having too elevated a mind, and too fearleſs a courage, to make this reflection while his friends were in extreme danger, flew to their aid, precipitated himſelf among the ſame breakers, and falling a victim to his own generoſity, and his diſobedience to his commanding officer, was involved in the ſame fate.

M. de Langle ſoon came on board my ſhip equally overcome with grief as myſelf, telling me, with tears, that the cataſtrophe was even greater than I thought. For, ſince our departure from France, he had made an inviolable rule never to diſpatch the two brothers

brothers (Meſſrs. la Borde Marchainville, and la Borde Boutervilliers) upon the ſame duty, and had, on this occaſion, alone yielded to their deſire of hunting and amuſing themſelves together; for we had both conſidered the expedition in that view, thinking them as little expoſed to danger as in the road of Breſt, or in the fineſt weather.

The canoes of the ſavages came at the ſame moment to announce this calamitous event. The ſigns of theſe uncultivated men expreſſed their having beheld the loſs of our two boats, and that aſſiſtance was impoſſible. We loaded them with preſents, and endeavoured to make them underſtand that all our riches ſhould belong to whoſoever could ſave a ſingle man.

Nothing could have affected their humanity to a greater degree. They ran to the ſea ſide, and ſpread themſelves on both ſides of the bay. I had already ſent my long-boat, under the command of M. de Clonard, to the eaſtward, where, had any one the good fortune to ſave himſelf, he would probably have landed. M. de Langle went to the weſtward to leave nothing unexamined, while I remained on board to take care of the two ſhips, with the precautions neceſſary to defend us againſt the ſavages, towards whom, prudence required us to be ever on our guard. Almoſt all the officers, and ſeveral others, followed Meſſrs. de Langle and Clonard, who went three leagues along the beach, without perceiving the ſmalleſt fragment thrown upon it. I had, till then, indulged a ray of hope: for the mind paſſes with difficulty from a ſtate of happineſs to ſo profound an abyſs of grief. But the return of our boats ſoon diſſipated the illuſion, and threw me into a ſtate of conſternation and deſpair, not to be deſcribed by the moſt nervous language.

I ſhall give the account of M. Boutin, the friend

of M. d'Eſcures, though we are not agreed as to the imprudence of that officer.

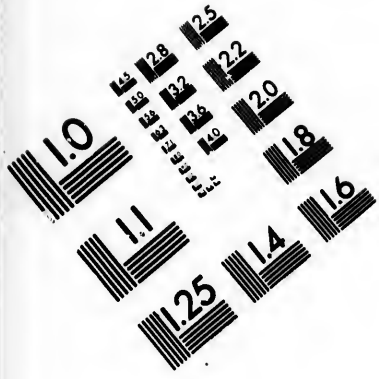
Narrative of M. Boutin.

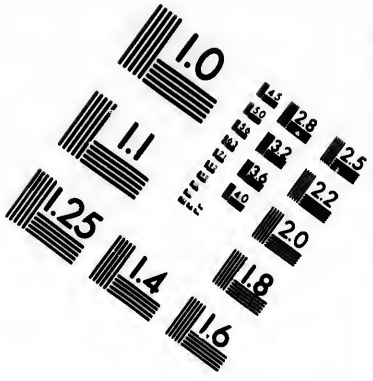
" On the 13th of July, at 50 minutes paſt five in " the morning, I quitted the Bouſſole in the jolly-" boat, with orders to follow M. d'Eſcures, who " commanded our yawl. M. de Marchainville, with " the command of that of the Aſtrolabe, was to " join us. The inſtructions delivered to M. d'Eſ-" cures by M. de la Pérouſe, and communicated to " me, charged him to employ theſe three boats to " ſound the bay, to lay down the ſoundings, accord-" ing to the bearings, on the draught which had " been given to him; to ſound the channel, if the " water was ſmooth, and to meaſure its breadth. " But he was expreſsly ordered not to expoſe the " boats under his command to the leaſt danger, or " to approach the channel, ſhould the ſea at all " break, or even were there any ſwell. After hav-" ing doubled the weſternmoſt point of the iſland, " near which we lay at anchor, I obſerved that the " ſea broke entirely acroſs the channel, and that it " was impoſſible to ſhew ourſelves before it. M. " d'Eſcures was then a-head, lying on his oars, " and ſeemingly waiting for me; but as ſoon as I had " approached him within muſket-ſhot, he ſtood on-" ward, and, as his boat rowed better than mine, he " repeated the ſame manœuvre ſeveral times, with-" out my being able to join him. At a quarter paſt " ſeven, having conſtantly ſteered for the channel, " we were within two cables length of it, when the " yawl of our ſhip put about. I followed his mo-" tions, keeping in his wake, and we ſteered back to " re-enter the bay, leaving the channel behind us. " My boat was aſtern of our yawl, but within hail,

" and

" and I perceived that of the Aſtrolabe a quarter of " a league within the bay. M. d'Eſcures then hailed " me with a laugh, and ſaid—" I think the beſt " thing we can do is to breakfaſt, for the ſea breaks " horribly in the channel." I anſwered—" Certain- " ly; and I believe our labour will be confined to " [illegible] the limits of the ſandy bay, that is on the " [illegible] hand on coming." M. de Pierrevert, who " [illegible] d'Eſcures' boat, was going to anſwer; " but looking towards the eaſtern coaſt, he perceived " that we were ſwept away by the ebb, which I alſo " obſerving, both the boats rowed with the greateſt " exertion to the northward, in order to get further " from the channel, which was ſtill a hundred toiſes " diſtant; but I was in no apprehenſion, as by get- " ting the diſtance of only 20 toiſes on either ſide we " could run the boats on the beach. After pulling " above a minute, without being able to ſtem the tide, " I endeavoured, but in vain, to gain the eaſtern ſhore; " and our yawl, which was a-head, attempted, though " equally in vain, to make that to the weſtward; " we were therefore obliged to put about again to " the northward, to avoid falling in the trough of the " the breakers. The firſt ſeas beginning to break " very near my boat; I dropped my grapnel, which " however did not take hold, and luckily the rope " not being faſtened to a bench, it ran out thwart end " for end, and diſburthened us of a weight which " might have proved fatal. I was inſtantly in the " middle of the heavieſt ſeas, which almoſt filled " the boat. However ſhe did not ſink, and conti- " nued to ſteer, ſo that I could always keep her " ſtern to the breakers, which afforded me great " hopes of eſcaping the danger.

" Our yawl had got to a diſtance while I was " letting go the grapnel, but was not among the " breakers till a few minutes after. I loſt ſight of " her when I ſhipped the firſt ſea, but in one of





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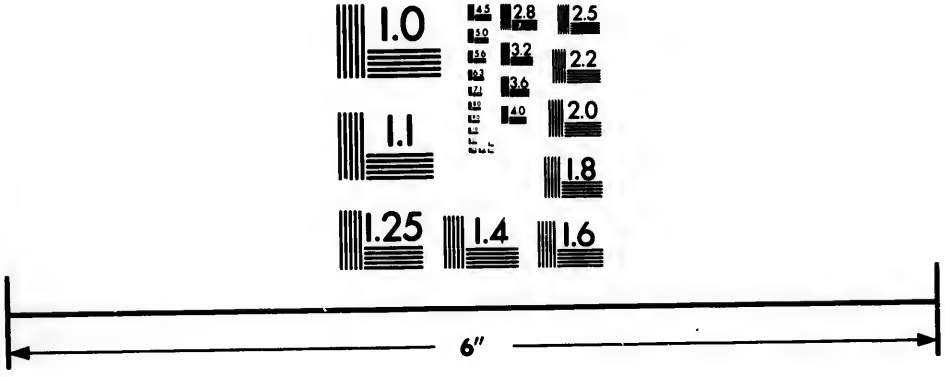

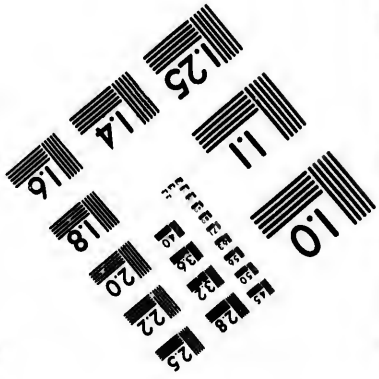

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" thoſe moments when I was at the top of them, I " again ſaw her going down, 30 or 40 toiſes a-head, " lying broadſide to, but I could perceive neither " men nor oars. My only hope had been her " ſtemming the current, and I was but too cer- " tain ſhe muſt unavoidably be loſt, if ſhe ſhould " be drifted out by it; for to eſcape there, a boat " muſt be able to anſwer her helm when full of " water, in order to avoid overſetting; unfortu- " nately none of theſe qualities belonged to our " yawl.

" I was ſtill in the midſt of the breakers, look- " ing out on each ſide, and ſaw aſtern of my boat " that the waves formed a chain towards the ſouth, " extending as far as my eye could follow it. The " breakers ſeemed alſo to run a great way out to the " weſtward, and I perceived, at length, that could " I but gain 50 toiſes to the eaſtward, I ſhould " find a leſs dangerous ſea. I tried every effort to " ſucceed in that object, pulling away to ſtarboard " between the waves, and at 25 minutes after ſeven " I was out of every danger, having nothing to en- " counter but a heavy ſwell and a ſhort ſea, occa- " ſioned by the breeze from the W. N. W.

" After baling the water from my boat, I conſi- " dered of the beſt means to aſſiſt my unfortunate " companions, but from that time no ray of hope " dawned upon my mind.

" From the moment I had perceived our boat go " down among the breakers, I had conſtantly kept " pulling to the eaſtward, and could not get clear of " them for ſome minutes. It was therefore impoſſi- " ble for men drawn into the middle of ſo rapid a " current to get out of its direction, which muſt in- " evitably carry them along for the remainder of the " tide, which ran out to the offing till 45 minutes " paſt eight: nor could the beſt ſwimmer reſiſt, " even for a few moments, the force of theſe waves.

" Yet

" Yet as I could make no reaſonable ſearch, but in " the direction of the current, I ſteered back to the " ſouthward, keeping cloſe along the edge of the " breakers on my ſtarboard hand, and changing my " courſe every inſtant to get near ſome ſea-wolves " or ſea-weed, which, from time to time, deluded " my hopes.

" As there was a great ſwell, my view became " very extenſive, when on the tops of the waves; " and I could have perceived an oar or a piece of " wreck at more than 200 toiſes diſtance.

" My eyes were ſoon directed to the eaſtern point " of the channel, where I perceived men making " ſignals with their cloaks. Theſe, as I afterwards " learnt, were ſavages; but at firſt I took them for " the crew of the Aſtrolabe's yawl, and imagined " ſhe waited for the turn of the tide to come to our " aſſiſtance; little did I think my ill-fated friends " had already fallen victims to their own generous " courage.

" At three quarters paſt eight * the tide having " turned, there were no longer any breakers, but " only a heavy ſwell; and I continued my ſearch in " that ſwell, following the ſet of the ebb, which " was ſpent, but was equally unhappy in my ſe- " cond attempt. At nine o'clock, perceiving the " flood came from the S. W. that I had neither " proviſions, grapnel, nor ſails; that my crew was " wet and cold; and fearing leſt I ſhould not be " able to re-enter the bay, when the tide ſhould " have acquired its full ſtrength; obſerving alſo that " even then it ſet violently to the north-eaſt, which " would have hindered me from getting to the " ſouthward, where only I muſt have continued my

* Half paſt eight was the time I had appointed in my inſtructions for them to approach the channel without danger, becauſe the current would then in all events have run inwards. It was a quarter paſt ſeven when the boats were loſt.

ſearch,

" ſearch, if the tide had permitted, I re-entered the " bay ſteering to the northward.

" The channel was already nearly ſhut in by the " E. point, and the ſea ſtill broke on the two points, " but was ſmooth in the middle. At length I gained " the entrance, keeping very cloſe in with the lar- " board point, on which the Americans ſtood, who " made ſignals to me, and whom I had taken for " my countrymen. Their geſtures expreſſed that " they had ſeen two veſſels overſet, and not per- " ceiving the Aſtrolabe's yawl, I was but too well aſ- " ſured of the fate of M. de Marchainville, with " whom I was too thoroughly acquainted to ima- " gine he would reflect on the inutility of the dan- " ger to which he expoſed himſelf. Yet as we encou- " rage hope to the laſt, a faint poſſibility ſtill flat- " tered me that I ſhould find him on board, whither " he might have gone to procure aſſiſtanc ; and the " firſt words I uttered on my return to the ſhip were, " Have you heard of Marchainville ?" The anſwer, " No, aſſured me he was loſt.

" After all theſe details I muſt explain the mo- " tives to which I attribute the conduct of M. d'Eſ- " cures. As it was impoſſible he ſhould entertain " an idea of getting into the channel, his only de- " ſign muſt have been merely to approach it, while he " believed himſelf at a diſtance more than ſufficient " to avoid danger : but of that diſtance neither he, " nor myſelf, nor the 18 perſons with us formed an ac- " curate judgment. I cannot ſay how far this miſtake " is pardonable, nor why it was impoſſible to know " the violence of the current ; for though it may " be thought I would excuſe myſelf, I repeat that " I believed our diſtance more than ſufficient ; and " even the appearance of the coaſt, which ſeemed " to fly to the northward with incredible ſwiftneſs, " did not alarm, though it aſtoniſhed me. With- " out running into a detail of all the cauſes which

" con-

" contributed to inſpire us with a fatal confidence, I " cannot refrain from obſerving, that on the very " day we entered this bay, our boats ſounded the " channel for more than two hours, in every direc- " tion, without finding any current. It is true, " when our ſhips preſented themſelves before it, " they were driven back by the ebb; but the " wind was ſo faint, that, at the ſame time, our " boats ſtemmed the tide with the greateſt facility. " Laſtly, on the 11th of July, the day of the full " moon, both our commanders, in perſon, with ſe- " veral officers, ſounded this channel, went out with " the ebb, and returned with the flood, without " remarking any thing which could afford the leaſt " ſuſpicion of any danger, eſpecially with boats well " manned. We may therefore conclude, that on " the 13th of July the violence of the current was " occaſioned by ſome adventitious cauſe; ſuch as " an extraordinary melting of the ſnows, or tem- " peſtuous winds, which, though they did not pe- " netrate into the bay, doubtleſs had blown ſtrong in " the offing.

" M. de Marchainville was a quarter of a league " within the channel, when I was drawn into it, and " from that moment I ſaw him no more; but all who " know him will readily imagine what his noble and " generous character would lead him to attempt. It " is probable when he perceived our boats among " the breakers, unable to conceive how we could " poſſibly be drawn in by it, perhaps he ſuppoſed " a grapnel rope had ſnapped, or an oar been loſt. At " that inſtant he might have rowed to us, up to the " edge of the firſt breakers, and ſeeing us ſtruggling " with the waves, he would liſten to his courage alone, " and endeavour to paſs through the breakers to aſſiſt " us, even at the riſk of periſhing with us. Such " a death was indeed glorious for him; but how " cruel muſt be its remembrance to him, who, tho'

" eſcaped

" eſcaped from the danger, can never again behold " his companions who ſhared it, or the heroes who " came to his aſſiſtance.

" Far be it from me to omit any eſſential fact, " or miſtate thoſe I relate. M. Mouton, the lieu- " tenant, who was ſecond in command of my boat, " is able to correct my errors, if my memory has " deceived me. His firmneſs, added to that of the " coxſwain and the four rowers, contributed not a " little to our ſafety. Even in the midſt of the " breakers my orders were executed with all the ac- " curacy of the moſt unembarraſſed ſituations.

(Signed) " BOUTIN."

It now only remained for us to quit with expedition a country which had proved ſo fatal to us. Some delay, however, was due to the families of our unfortunate friends. Too precipitate a departure would have left doubts and inquietudes in Europe, where it could not have been imagined the current extends at moſt only a league out of the channel; that neither the boats nor their crews could have been drawn in from a greater diſtance, and the fury of the ſea in that place left us no hope of their return. If againſt all probability any one had been able to return, as he muſt be in ſome part of the environs of the bay, I determined to wait ſeveral days longer. However I quitted the anchoring place of the iſland, and removed to a birth on the ſandy flat, at the entrance on the weſtern ſhore. I devoted five days to this paſſage, which is only a league, during which we experienced a gale of wind from the eaſtward, which would have greatly endangered us, had we not been at anchor on a good bottom of mud; happily our anchors did come home, as we were without a cable's length of the ſhore. The contrary winds had detained us much longer than I had intended to remain, and we did not ſail till the 30th of July. Eighteen days after

after this event, which it has given me so much pain to describe, and of which the remembrance will render me for ever unhappy. Before our departure we erected a monument to the memory of our brave companions on the island, in the middle of the bay, to which I gave the name of *l'Isle du Cénotaphe*, or Monument Island. M. de Lamanon wrote the following inscription, which he buried in a bottle, at the foot of the monument:

"At the entrance of this port 21 brave Mariners perished.
"Reader, mingle your tears with our's!

"On the 4th of July, 1786, the Bousole and Astrolabe frigates "arrived in this port, having left Brest the 1st of August, 1785. "Through the care of M. de la Pérouse, Commodore of the ex- "pedition, M. le Vicomte de Langle, Captain of the other frigate, "Messrs. Clonard and de Monti, second Captains of the two ships "and of the surgeons and other officers, none of the maladies, "the ordinary consequence of long voyages, had then affected the "crews. M. de la Pérouse and all of us rejoiced that we had come "from one end of the world to the other, through all kinds of "dangers, and having visited nations of reputed savages, without "losing one man, or spilling one drop of blood. The 13th of July "three boats departed at five in the morning, to lay down the "soundings of this bay on the draught. They were under the com- "mand of M. d'Escures, a lieutenant, and a knight of St. Louis, "to whom M. de la Pérouse had delivered written instructions, ex- "pressly charging him not to approach the current, by which how- "ever he was drawn in, when he thought himself at a sufficient "distance. Messrs. de la Borde, brothers, and M. de Flassan, who "were in the boat of the other ship, courageously exposed them- "selves to the same danger, in attempting to assist their compa- "nions, but, alas! they shared the same fate. The third boat was "under the orders of Lieut. M. Boutin, who, boldly struggling "with the breakers, made useless efforts, for several hours, to assist "his friends, and was indebted for his own safety only to the superior "construction of his boat, his own prudence, and that of his se- "cond in command, Lieut. M. Laprise Mouton, and the activity "and prompt obedience of his crew, consisting of John Marie, "coxswain, Lhostis, le Bas, Corentin Jers, and Monens, sea- "men. The Indians appeared to share in our grief, which is ex- "treme. On this 30th of July, moved and softened, though not "discouraged by misfortune, we proceed on our voyage.

Names

Names of the Officers, Soldiers, and Sailors, loſt on the 13th of July, at a quarter paſt ſeven in the morning.

OF THE BOUSSOLE.

Officers.—Meſſrs. d'Eſcures, de Pierrevert, de Montarnal.

Crew.—Le Maitre, chief pilot; Lieutot, corporal and coxſwain; Prieur, Fraichot, Berrin, Bolet, Fleury, Chaub, ſoldiers; the eldeſt not 33 years of age.

OF THE ASTROLABE.

Officers.—Meſſrs. de la Borde Marchainville, de la Borde Boutervilliers, brothers; and Flaſſan.

Crew.—Soulas, corporal and coxſwain; Philiby, Julien le Penn, and Pierre Rabier, ſoldiers. Thomas Andrieux, Goulven, Tarreau, Guillaume Duqueſne, all three top-men, in the prime of life.

Our ſtay at the entrance of the bay afforded us a fund of information on the manners and cuſtoms of the ſavages, impoſſible to be obtained at our former anchorage. For our ſhips being at anchor near their villages, we viſited them every day, and as often received cauſe of complaint, though our conduct towards them never varied, and we conſtantly afforded them proofs of our gentleneſs and benevolence.

The 22d of July they brought us ſome pieces of the wreck of our boats, thrown by the ſea on the eaſtern ſhore, very near the bay, and made us comprehend, by ſigns, that they had buried one of our unfortunate companions on the ſhore, where he had been thrown by the waves. Upon this information, Meſſrs. de Clonard, de Monneron, and de Monti, ſet out immediately, directing their courſe to the eaſtward, accompanied by the ſavages, who had brought theſe pieces of wreck, and whom we loaded with preſents.

Our officers went three leagues over rocks and ſtones on a dreadful road. The guides every half hour exacted a freſh compenſation, or refuſed to proceed, and, at length, ran into the woods, and took to flight. Our officers too late perceived their account to be a mere trick invented to obtain more preſents.

During

During their route they ſaw immenſe foreſts of firs of the largeſt dimenſions. They meaſured ſome that were five feet French in diameter, and apparently more than 140 in height.

The account they gave of this artifice of the ſavages created no ſurpriſe, for the addreſs of theſe people in ſtealing and cheating is without a parallel. Meſſrs. de Langle and Lamanon, with ſeveral officers and naturaliſts, had, two days before, made an excurſion to the weſtward, of which alſo theſe ſad enquiries were the object, though purſued with as little ſucceſs. They met with a village of the Indians, ſituated on a ſmall river, entirely blocked up with ſtakes for catching ſalmon. We had for ſome time ſuſpected theſe fiſh came from that part of the coaſt, but were not certain till this diſcovery fully ſatisfied our curioſity, and M. Duché de Vancy took a drawing illuſtrative of the manner of performing this fiſhery *. The ſalmon endeavouring to aſcend the river, are obſtructed by the ſtakes, which being unable to paſs, they return towards the ſea, and, in their paſſage, meet with very narrow baſkets cloſed at the end, and placed in the angles of this cauſeway, when having once entered, they are unable to eſcape. This fiſhery is ſo abundant, that both our ſhips crews had a great quantity of fiſh during our ſtay, and each ſhip ſalted down two hogſheads of them.

Our travellers alſo met with a *morai*†, which proves theſe Indians burn the dead bodies, preſerving only their heads, one of which was found wrapped up in ſeveral ſkins. This kind of monument conſiſts of four ſtrong ſtakes, ſupporting a ſmall wooden chamber, where the aſhes are depoſited incloſed in cheſts. They opened theſe cheſts, unfolded the ſkins which envelloped the heads, and having thus gratified their curioſity, ſcrupulouſly replaced every

* This drawing has been loſt.

† I have preſerved the term *Morai*, becauſes it expreſſes, better than that of *tomb*, an expoſition to the open air.

thing

thing in its former ſtate, adding ſeveral preſents of glaſs, beads, and inſtruments of iron. The ſavages who had witneſſed this viſit, ſhewed ſome marks of inquietude, but did not fail ſpeedily to carry off the preſents our travellers had left; and other enquirers going to the ſame place the next day, found nothing but the aſhes and head. They alſo left preſents, which had the ſame fate with thoſe of the preceding travellers, and no doubt the Indians wiſhed for many ſuch viſitants every day. But though they permitted us, with ſome reluctance, to viſit their cemeteries, they would not ſuffer us to explore their huts, which we were not allowed even to approach, till their wives, the moſt diſguſting creatures in the univerſe, had been previouſly removed.

Every day we obſerved a freſh ſucceſſion of canoes entering the bay, and every day we beheld entire villages remove, and yield their place to others. The Indians apparently dread the channel, and never truſted themſelves but at ſlack water; and we could diſtinctly perceive with our glaſſes, that when they arrived between the two points, their Chief, or at leaſt the moſt conſiderable perſonage among them, roſe up and ſtretched his arms towards the ſun, as if addreſſing a prayer to him, while the reſt paddled with all their ſtrength. On making ſome enquiries concerning this cuſtom, we learnt that of eight large canoes, ſeven had been wrecked in the channel ſome time ago, and one only was ſaved, which the Indians, who had eſcaped, conſecrated to their God, in memory of their companions. This canoe which we had the fortune to ſee, ſtands by a *morai*, where the aſhes of ſome Indians who had been wrecked are doubtleſs depoſited.

It bears no reſemblance to the canoes of the country, which are formed only of an hollowed tree, raiſed on each ſide by a plank ſewed to the bottom; but this had ribs, timber, and rails, like our boats.

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This framing, which was very well conſtructed, was covered with ſkins of the ſea wolf, inſtead of planks, ſo neatly ſewed that the beſt workmen of Europe would find great difficulty in imitating that opera-tion. This covering, which we examined with great attention, was depoſited in the Morai, by the ſide of the cheſts containing the aſhes, while the bare frame of the boat was placed on ſtocks erected near that monument.

I had no ſmall deſire to convey this ſkin caſe to Europe, and it was abſolutely within our power; for that part of the bay being uninhabited, there was no Indian to prevent us, and I am perſuaded the unfortunate ſufferers on the wreck were ſtrangers, of whom I ſhall explain my conjectures in the following chapter. But the monuments of the dead claim a religious reſpect among all nations of the world, and I ſhrunk from the violation of an aſylum reverenced even by ſavages.

At length on the 30th of July, at four in the evening, we ſet ſail with a very light breeze from the Weſt, which did not go down till we had got about three leagues to the offing, and the horizon was ſo clear, that we perceived Mount St. Elias bearing N. W. (variation allowed for) diſtant at leaſt forty leagues. At eight in the evening the entrance of the bay bore north. We were three leagues off ſhore, having then 90 fathoms water over a muddy bottom.

CHAP. IX.

DESCRIPTION OF PORT DES FRANÇAIS, ITS LATITUDE AND LONGITUDE—ADVANTAGES AND INCONVENIENCES OF THAT HARBOUR—VEGETABLE AND MINERAL PRODUCTIONS—BIRDS, FISH, SHELLS, QUADRUPEDS—MANNERS AND CUSTOMS OF THE INDIANS—THEIR ARTS, ARMS, DRESS, AND DISPOSITION TO THEFT—GREAT PRESUMPTION THAT ONLY THE RUSSIANS HAVE A COMMUNICATION INDIRECTLY WITH THESE PEOPLE—THEIR MUSIC, DANCES, AND PASSION FOR GAMING—DISSERTATION ON THEIR LANGUAGE.

THE bay, or rather the harbour, which I have called Port des Français, is situated, according to our observations and those of M. Dagelet in 58° 37′ N. lat. and 139° 50′ W. longitude. The variation of the compass is 28° towards the East, and the dip of the needle 74°, but the plan will explain the extent and direction of the port better than any verbal description. On the days of the new and full moon, the tide rises seven feet and a half, and it is high water at one o'clock. The winds from the offing, perhaps from some unknown cause, act with so much violence on the current of the channel, that I have seen the flood tide enter with the rapidity of a torrent, though at similar periods of the moon, even a boat might sometimes have stemmed it.

I measured, in my excursions, the bank raised by several tides 15 feet above the level of the sea; and, it is probable, that the tides by which it had been occasioned were those of the winter. When the winds blow violently from the south, the channel pass must be impracticable, and at all times the currents render the entrance difficult. The getting out requires also a concurrence

PLAN OF
PORT DES FRANÇAIS
on the North West Coast of
AMERICA,
In Latitude 58° 37' North & Longitude
139° 30' West of Paris.
North Western
Glacier
WESTERN BASON Deep Water
Deep Water
Deep Water
THE
HARBOUR
Deep Water
EASTERN BASON Deep Water
North Eastern
Glacier
THE ROAD
Observatory
Village
Village

currence of circumſtances, which muſt retard a veſſel many weeks, as ſhe can only get under weigh at high-water; the breeze from the weſt, or the N. W., ſeldom riſes till about ten o'clock, when it is too late to take advantage of the morning tide: and, laſtly, the eaſterly winds, which are contrary, appear to be more frequent than thoſe from the weſt, and the height of the ſurrounding mountains never permits the land or north winds to penetrate into the road. This port poſſeſſing many advantages, I have alſo thought it neceſſary to explain all its inconveniences. In my opinion it would not be commodious for merchantmen trading for furs on ſpeculation. They would be under the neceſſity of coming to an anchor in many bays, making but a ſhort ſtay in each, becauſe theſe Indians ſell all their ſtock in the firſt week, and any delay muſt be very prejudicial to mere traders. But a nation deſigning to form a factory ſimilar to that of the Engliſh at Hudſon's Bay, cannot make choice of a better ſituation for ſuch an eſtabliſhment. A ſingle battery of four cannon, placed on the point of the continent, would be ſufficient to defend ſo narrow an entrance, rendered difficult by the currents; and ſuch a battery could neither be turned nor carried by land, becauſe the ſea always breaks with great violence on the coaſt, where it would, therefore, be impoſſible to make a deſcent. The fort, the magazines, and all the commercial eſtabliſhment, might be erected on l'Iſle du Cenotaphe, which is about a league in circumference, very capable of cultivation, and ſupplied with wood and water. The ſhips not having to ſearch for cargoes, being certain of finding them already collected at one point, would not be expoſed to any delay; ſome buoys, laid down for the interior navigation of the bay, would render it extremely ſafe and eaſy, and pilots would be formed, who, knowing the ſetting and

drift of the currents at certain periods of the tide, would enſure the ſafety of ſhips coming in, and going out: and, laſtly, we found there ſo conſiderable a ſupply of otter ſkins, that I may venture to preſume a greater quantity could not have been collected in any other part of America.

The climate of this coaſt ſeems infinitely milder than that of Hudſon's Bay, in the ſame latitude. We found pines meaſuring ſix feet in diameter, and 140 in height, while thoſe of the ſame ſpecies at Prince of Wales's, and Duke of York's forts, are ſcarcely of a ſufficient dimenſion for ſtudding-ſail booms.

Vegetation is extremely vigorous during three or four months of the year, and I ſhould not be ſurpriſed to find Ruſſian wheat, and an infinity of other common plants, ſucceed well there. We found celery, round leaved ſorrel, lupines, wild peas, mil-foil or yarrow, chicory, and mimulus, in ſuch abundance, that every day, and every meal, the ſhips' coppers were filled with them. We had them in ſoups, in ragouts, and in ſalads, and they contributed not a little to preſerve our health. Among theſe eſculents we found nearly all the field and mountain plants of France, as the angelica, bouton d'or, violet, and ſeveral ſpecies of graſs for fodder. All theſe herbs, doubtleſs, we might have cooked and eaten without danger, had they not been migled with ſome plants of the hemlock kind, very acrid, on which we made no experiments.

The woods are replete with ſtrawberries, raſpberries, and gooſeberries. We found alſo the elder, the dwarf willow, different kinds of broom, which grow in the ſhade, the balſam-poplar, *liard*-poplar, marſaut-willow, yoke-elm; and, laſtly, thoſe ſuperb pines adapted for the maſts of the largeſt veſſels. None of the vegetable productions are ſtrangers to Europe, for M. de la Martinière, in all his various excurſions,

excurſions, found only three plants which he believed to be new; and it is well known the ſame may happen in the environs of Paris.

The rivers were full of trout and ſalmon, but, in the bay, we only caught *fletans*, * ſome of which weighed 100lbs, ſmall *vieilles*, † a ſingle ray or thornback, ſome *caplans*, ‡ and ſome plaice. Preferring the trout and ſalmon to all theſe fiſh, and the Indians ſelling them in greater quantities than we conſumed, we fiſhed very little, and that only with the line, for our conſtant occupation never permitted us to hawl the ſeine, which required the united force of 25 or 30 men to drag it aſhore. Muſcles grow in profuſe heaps on that part of the ſhore which is left dry at low water, and the rocks are alſo covered with very curious little *lepas*. In the hollows of the rocks are found cornets, and other ſhells of the perriwinkle kind. I have ſeen on the ſands *cames* of a conſiderable ſize, and M. de Lamanon brought from a place elevated above 200 toiſes from the level of the ſea, ſome well preſerved and very large petrifications of the ſhell, called, by naturaliſts, *manteau royal*, and by the vulgar *coquille de Saint Jacques*. This circumſtance is not uncommon to naturaliſts who could have found theſe ſhells at much greater heights, but it will long continue difficult to explain, ſo as to obviate all objections. We never found a ſingle ſhell of this ſpecies caſt on the ſands of the ſhore, which is well known to be the chief cabinet of nature.

* Or *faitan*, a flat fiſh, longer and narrower than the turbot, and its upper ſkin covered with ſmall ſcales. Thoſe caught in Europe are of a much ſmaller ſize.—*French Editor.*

† A fiſh in taſte and appearance like a cod, but commonly larger, though, from its avidity, caught with equal eaſe.—*French Editor.*

‡ This fiſh reſembles a whiting, though much larger, and its fleſh ſoft, well taſted, and eaſy of digeſtion. It abounds on the coaſt of Provence, where it is called *capelan*.—*French Editor.*

Our hunters ſaw in the woods, bears, martens, and ſquirrels, and the Indians ſold us ſome bear ſkins, both black and brown, together with thoſe of the Canadian lynx, the ermine, the marten, the *petit gris*, the ſquirrel, the beaver, the monax or mountain-rat of Canada, and the red-fox. M. de Lamanon took alſo a *muſaraigne*, or ſhrew-mouſe, alive; and we ſaw ſome tanned ſkins of the *orignal* or elk, and a horn of the wild-goat; but the moſt valuable, though not moſt common ſkins, are thoſe of the ſea-otter, ſea-wolf, and ſea-bear. Of birds there are not many different ſpecies, but the individuals of each are very numerous, and the copſes were full of linnets, nightingales, black-birds, and water-quails, whoſe ſong were very agreeable, this being their paring time. The white headed eagle, and crows of the largeſt ſpecies, were ſeen hovering in the air; we ſurprized and killed a king-fiſher, and found a very fine blue-jay, and ſome humming birds. The ſwallow or martin, and the black-huitrier, build in the hollows of the rocks on the ſea ſhore; but the only ſea birds we obſerved, were the goeland, the red-footed plover, cormorants, mallards, and divers, both of the large and ſmall ſpecies.

Yet though the vegetable and mineral productions of this country ſo nearly reſemble thoſe of other regions of the globe, its ſcenery has no parallel, and I doubt whether the lofty mountains, and deep vallies, of the Alps and Pyrenees, afford ſo tremendous, yet ſo pictureſque, a ſpectacle, well deſerving the attention of the curious, were it not placed at the extremity of the earth.

The primary mountains of granite, or of ſchiſt, covered with eternal ſnows, where no trees, no plants, are ſeen, reſt their baſes in the water, and form a kind of quay along the ſhore. Their ſides are ſo ſteep, that wild goats cannot climb beyond the firſt 2 or 300 toiſes; and all the ſtreams by which they

BLACKBIRD of PORT des FRANCAIS.

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they are divided, are converted into immenſe glaciers, whoſe ſummits riſe beyond the reach of ſight, while their baſes are waſhed by the ſea, and, at the diſtance of a cable's length from ſhore, the water cannot be ſounded with a line of 60 fathom.

The ſides of the harbour are formed of mountains of the ſecond order, only 8 or 900 toiſes high, decorated with pines and verdure, and only covered with ſnow on their ſummits. They ſeemed entirely compoſed of ſchiſt in the commencement of its decompoſition, and are not quite inacceſſible, though very difficult to aſcend. Meſſrs. de Lamanon, de la Martinière, Collignon, abbé Mongès, and father Receveur, all of them zealous and indefatigable naturaliſts, although they could not attain the very ſummit, yet mounted with inexpreſſible fatigue to a conſiderable height, where not a ſtone or flint eſcaped their notice. Too well ſkilled in the hiſtory and economy of nature to be ignorant, that in the vallies may be found ſome ſpecimens of whatever conſtitutes the maſs of the mountains; they did not fail to collect ochre, pyrites of copper, very friable, though very large, and perfectly chryſtalized granite, ſhoerl in chryſtals, granite, ſchiſts, pierre de corne, very pure quartz, mica, plumbago, and pit-coal, from all which, it is evident theſe mountains contain iron and copper, though we could perceive no traces of any other metal.

To a region ſo tremendous nature has adapted the inhabitants, differing as much from civilized nations, as the country I have juſt deſcribed differs from the cultivated plains of Europe. Equally rough and barbarous, as their ſoil is ſtony and unimproved, they inhabit this land only to ſpread devaſtation, and waging continual war with every kind of animal, deſpiſe the vegetable productions that ſpring up around them. I have, indeed, ſeen women and children eat ſtrawberries and raſpberries, but, doubtleſs, ſuch food is inſipid to men who, on the ſurface of

the earth, act the part of vultures in the regions of the air, or wolves and tigers in the forest. *

The arts of life are there considerably advanced, and they have already made great progress to civilization. But that civilization which polishes manners, and softens ferocity, is yet in its infancy; for their manner of life excluding all subordination, exposes them to be continually agitated by fear or vengeance, and being choleric, and prone to violence, we saw them incessantly raising their poignards against each other. Though subject to famine in the winter, as the chace may not produce a sufficient supply, they enjoy in summer the most profuse abundance; for, in less than an hour, they catch fish enough for the subsistence of their families during the day. Thus the remainder of their time being condemned to idleness, it is passed in play, which they pursue with as much ardour and passion as the dissipated inhabitants of a great metropolis; and, like them, make it the grand inexhaustible source of their quarrels. If to all these vices were added the baneful knowledge of some intoxicating liquor, I should not hesitate to pronounce these people hastening, by rapid strides, to total extirpation.

In vain may philosophers exclaim against this picture. While they are making books by the fire-side, I have been traversing the globe for thirty years, and have actually witnessed the cunning and injustice of

* An old proverb warns credulity against the accounts of travellers, and may, perhaps, prejudice the opinions, and diminish the confidence of some readers, who may not consider the great attention a navigator is interested to pay to his reputation, the least deviation from the truth being sufficient to provoke a formal contradiction from the numerous body of witnesses by whom he was accompanied. If, however, such a prejudice, which reflection would exclude, cannot be prevented, let me recommend, as its certain remedy, a comparison of our author's account with the details given by Dixon of the north west coast of America, not forgetting that his voyage was performed a year after that of La Pérouse, whose journal must therefore have been unknown to him.—*French Editor.*

nations

nations whom they pourtray as neceſſarily ſimple and virtuous, becauſe little removed from a ſtate of nature. But nature is ſublime only in the maſs, while ſhe is ever negligent of minutiæ. It is impoſſible to penetrate through woods not thinned by the labours of civilized man; to traverſe plains filled with rocks and ſtones, or inundated by impaſſable marſhes; or, in ſhort, to aſſociate with man in a ſtate of nature, becauſe in that ſtate man is cruel, baſe, and deceitful. Confirmed in this opinion by ſad experience, I have never had recourſe to that ſuperior force with which I was intruſted in order to repel the injuſtice of theſe ſavages, and teach them there is a law of nations which ſhould never be violated with impunity.

Our ſhips were inceſſantly ſurrounded by canoes of Indians, who would ſuffer three or four hours to paſs away before they commenced an exchange of a few fiſh, or two or three otter ſkins; ſeized every opportunity of plunder; ſtole every piece of iron that could eaſily be carried away; and, in the night particularly, tried every means of eluding our vigilance. I invited all the principal perſonages on board and loaded them with preſents, yet theſe very men, who had been eminently diſtinguiſhed, were never aſhamed to ſteal a nail or an old rag of cloaths. Whenever they aſſumed an air of mirth and docility I was aſſured ſome theft had been committed, and very often merely pretended not to obſerve it.

I expreſsly recommended the children to be careſſed and loaded with ſmall preſents, but their parents were inſenſible to this mark of benevolence, which I thought common to all nations. The only reflection it excited among them was, that by aſking to accompany their children when I invited them on board, they would find new opportunities for plunder; and for my inſtruction I often had the pleaſure of obſerving the father take advantage of moments when we appeared moſt occupied with his

his child, to pilfer and conceal under his covering of skin every thing within his reach.

I pretended to desire some trifling articles of little value belonging to the Indians to whom I had just made large presents, that I might awaken their generosity; but without effect.

I will readily admit that society cannot possibly exist without some virtues, but I must confess I had not the sagacity to discover any here. Always quarrelling between themselves, indifferent to their children, and tyrants to their wives, whom they condemn to the most incessant and intolerable labour, I have observed nothing among these people to induce me to soften the dark colouring of the picture.

We never landed without being armed and in a body, for they greatly dreaded our muskets; and eight or ten Europeans together might command a whole village. The two surgeon-majors of our ships imprudently venturing alone to the chace were attacked by the Indians, who endeavoured to seize their muskets, but fortunately without success, and only two men were sufficient to drive them away. A similar accident occurred to M. de Lesseps, our young Russian interpreter, when a boat's crew fortunately came to his assistance. Yet these hostilities appeared to them of so little moment that they did not discontinue their visits on board, and seemed never to suspect it possible for us to make reprisals.

I give the name of village to three or four penthouses, 25 feet long and 15 or 20 broad, covered only to windward with planks or bark of trees, in the middle of which is a fire with salmon and *fletans* suspended over it to dry in the smoke. Eighteen or twenty persons lodge in each of these penthouses; the women and children on one side, and the men on the other. Each cabin appeared to me to constitute a tribe independent of its neighbours; which possessed each a boat and a sort of Chief, went out

out, left the bay, and carried away their fish and wood, while the rest of the village appeared to take no share in their proceedings.

I am almost certain this port is inhabited only during summer, and that the Indians never pass the winter there. For I did not perceive a single cabin sheltered from the rain, and although there were not at any time more than 300 Indians together in the bay, we were visited by 7 or 800 others.

The canoes were continually coming in and going out, carrying with them their houses and furniture, which consists of several little chests containing their most valuable effects. These chests are placed at the entrance of their cabins, which are more unclean and stinking than the dens of the most loathsome animal with which we are yet acquainted. They never withdraw two steps for any common occasion of necessity, nor in the relief of nature do they seek any concealment or observe any mystery, but continue the conversation in which they are engaged, as if there was not a moment to be lost; and should this occur during a repast, resume their places without concern, from which, however, they do not stir two yards *. The wooden vessels in which they cook their fish are never washed, but serve

* "The inside of their dwellings exhibits a compleat 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 has depicted the nastiness of the houses occupied by the inhabitants of Nootka Sound in the following passage:

"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."

equally

equally for kettle, diſh, and plate; and as they cannot be placed on the fire, they boil their water by throwing in red hot flints, continually renewing them till their food is completely dreſſed. They are alſo acquainted with a method of roaſting their victuals ſimilar to that uſed by ſoldiers in camps.

We ſaw perhaps only a ſmall part of theſe people, who probably occupy a very conſiderable ſpace on the ſea coaſt, wandering all the ſummer about the different bays like ſea wolves in ſearch of food, and during winter penetrating into the heart of the country to hunt the caſtors and other animals, of which they brought us the exuviæ. Notwithſtanding they always go bareſooted, the ſoles of their feet are not callous, but continue ſo tender they cannot walk on the ſtones; a proof they travel only in canoes or with ſnow-ſhoes.

The dog being the only animal with whom they have made any alliance, there are commonly two or three of them in a cabin. They are ſmall, and reſemble the ſhepherd's dog of M. Buffon: they drink little or nothing, make a whiſtling noiſe like the *adive* of Bengal *, and are ſo ferocious as to bear the ſame analogy to other dogs as their maſters to civilized nations.

The men pierce the cartilage of their noſe and ears to which they attach various little ornaments. They ſcarify their breaſts and arms with a very ſharp iron inſtrument, whetting it upon their teeth as on a hone. Their teeth are filed down even with the gum with a piece of rough ſtone rounded off in the ſhape of a tongue. They paint their faces and other parts of their bodies in a frightful manner, with ochre, lamp black, and black lead, mixed

* A wild beaſt between the wolf and the dog, very common in Aſia, carnivorous, and dangerous to men. It barks in the night like a dog, but not equally loud. Its ſkin is yellowiſh, and is eſteemed a valuable fur.——*French Editor.*

up

up with the oil of the ſea wolf. During great ceremonies their hair is long and powdered, and dreſſed with the down of various ſea birds. This ſeems to be their greateſt luxury, and is reſerved perhaps only for the heads of families. A plain ſkin covers their ſhoulders while the reſt of the body is abſolutely naked: but they uſually cover their head with ſmall hats of ſtraw very neatly made. Sometimes however they wear on their heads a bonnet with two corners, eagles plumes, and laſtly, the entire head of a bear, in which they introduce a ſkull cap of wood. Of theſe different head-dreſſes they have great varieties, but their principal object ſeems, like their other cuſtoms, to render them only more frightful, and perhaps to inſpire their enemies with terror.

Some of the Indians had entire ſhirts of otter ſkins, and the ordinary dreſs of the grand Chief was a ſhirt made of the elk ſkin. This very dreſs is well known among the ſavages of Canada, and other nations on the eaſtern ſide of America*.

I ſaw no *tattooing* but on the arms of the women, who have alſo a cuſtom which makes them ſo hideous, that I could ſcarcely have credited had I not been an eye witneſs to it. Every one of them without exception has the under lip cut acroſs even with the gums, the whole width of the mouth. In this inciſion they wear a kind of ladle without handles, which preſſes againſt their gums, to which their cut lip ſerves as a pad outwards, ſo that the lower part of the mouth projects 2 or 3 inches†. M. de

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

† This cuſtom appears very general among the tribes who inhabit the north-weſt coaſt of America, from the 50° to the 60°, and extends even to the ſavages of the Iſle of Foxes and the Aleutian Iſlands.

M. de Vancy's drawing, which is a perfectly accurate representation of it, will be the best illustration of this revolting custom, than which the whole world perhaps does not afford another equally disgusting. The young girls only wear a kind of bodkin, while the married women alone are entitled to the honours of the ladle *. We sometimes persuaded them

Islands. Vide the observations of Coxe in his translation of *Nouvelles Découverts des Russes*, pages 34, 54, 104, and 138.

At Port Mulgrave, 59° 33′ north lat. 140° 22′ west from the meridian of Paris, "an aperture is made in the thick part of the under lip, "and increased by degrees 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 appear-"ed in a superior station to the rest."—*Dixon's Voyage*, p. 172.

At Norfolk Sound, in 57° 3′ north lat. 135° 36′ west long. from the meridian of Paris, "the women, too, ornament, or rather distort "their lips in the same manner as I have already described; and it "should seem, that the female who is ornamented with the largest "piece of wood, is generally most respected by her friends, and "the community in general."—*Dixon's voyage* p. 186.

At Hippah, one of Queen Charlotte's Islands in 53° 48′ north lat. 135° 20′ west long. from the meridian of Paris, "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 ap-"pearing to be peculiarly ornamented, Captain Dixon wished "to purchase 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."—*Dixon's voyage*, p. 208.

Compare also what Cook says on the customs of the savages of Oonalaska and Norton's Sound, in 64° 31′ N. lat. and 165° 7′ west long. from the meridian of Paris, and of Prince William's Sound, in 61° 11′ 30″ N. lat. 148° 52′ W. long. from the meridian of Paris. Cook's 3d Voyage.——*French Editor.*

* Among these savages marriage being subject to no formalities except

A WOMAN of the PORT of the FRENCH.

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them to take off this ornament, which they conſented to with difficulty, making the ſame modeſt geſtures and experiencing the ſame embarraſſment as an European lady would ſhew at uncovering her boſom. The under lip then fell down on the chin, and this ſecond picture was no leſs hideous than the former.

Yet theſe women, the moſt diſguſting on earth, covered with fetid, and frequently untanned, ſkins, excited the deſires of ſome perſons who, in truth, were well privileged for ſuch careſſes. At firſt they expreſſed unwillingneſs, and declared, by their geſtures, they ran the riſk of their lives. But overcome at laſt by preſents, they made the ſun witneſs of their rites, and refuſed to conceal themſelves in the woods.*

It

except thoſe dictated by nature, I am of opinion with Dixon that the lip-piece is rather the diſtinction of puberty or of maternity, than a diſtinction of rank, or the badge of excluſively belonging to one man. The reſpect they pay to ſuch as bear this ornament may originate in this principle, for I cannot ſuppoſe the privation of this honour to be a puniſhment in a country ſo little civilized, and where it would be ſo eaſy to recognize thoſe who once enjoyed it.

"This curious operation of cutting the under lip of the females, "never takes place during their infancy, but from every obſerva- "tion 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 "center 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 fre- "quently 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.

* The minutiæ of Captain Dixon's deſcription coincide, in general, ſo exactly with thoſe of La Pérouſe, that I can ſcarcely conceive how they ſhould differ ſo much in their eſtimation of female charms.

Did chance preſent to Dixon an object perfectly unique among his

It cannot be doubted, but that orb is the god of these people, who frequently address prayers to him. But I could perceive neither temple nor priests, nor the traces of any regular religion.

In size and figure these Indians differ little from us; their features are greatly varied, and afford no peculiar characteristic, except in the expression of their eyes, which never communicate one tender sentiment. The colour of their skin is very brown, being constantly exposed to the sun; but their children are born as white as any among us. They have, indeed, less beard than Europeans, but enough, however, to remove all doubt upon the subject; and the supposition that the Americans are without beards, is an error that has been too readily adopted. I have seen the aborigines of New England, Canada, Nova Scotia, and Hudson's Bay, and among each of those nations have found many individuals with a beard,

his species? or does the difference of his opinion originate in the well known indulgence of a sailor after so long a voyage? Be that as it may, he gives the following account:

"They are particularly fond of painting their faces with a va-
"riety of colours, so that it is no easy matter to discover their real
"complexion; however, we prevailed on one woman, by persua-
"sion, 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 de-
"stroyed by a custom extremely singular." *Dixon's Voyage*, p. 171.

In support of Dixon, however, I must cite the Spanish account of a voyage undertaken in 1777, written by Don Maurello, second Captain of La Favorecida. This navigator, after confirming the accounts of the ridiculous ornament placed in an orifice cut in the middle of the under lip, adds: "If better dressed, many of them "might dispute the prize of beauty with the finest women of Spain." *French Editor.*

which

which made me think a cuſtom of deſtroying it has prevailed where it does not appear.* In the frame of their bodies they are feeble, and, in wreſtling, the weakeſt of our ſailors would have thrown the moſt robuſt of the Indians. I remarked ſome whoſe ſwollen legs gave ſymptoms of the ſcurvy, although their gums were ſound; but I doubt they will never arrive at a great age: nor did I ſee more than one woman apparently of the age of ſixty; and ſhe enjoyed no privilege, but ſubmitted, like the reſt, to the various labours of the ſex.

My voyages have enabled me to compare various nations, and I am certain the Indians of *Port des Français* are not Eſquimaux. They have evidently a common origin with all the inhabitants of the interior of Canada, and the northern parts of America.

Cuſtoms entirely peculiar to themſelves, and a very

* "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 deceived 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 ſup-"poſed defect among the natives of America has occaſioned much "ſpeculative enquiry 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 pulling them out, but that as they advance in years, the hair "is ſuffered to grow." *Dixon's Voyage*, p. 238.

An enemy to all ſyſtems and aiming ſolely at truth in my reſearches, I ſhall not diſcard the aſſertions of thoſe who contradict La Pérouſe, and I believe the reader will derive pleaſure from the following extract from the *Lettres Américaines* of Carli, let. 24:

"It is not at all ſurpriſing indeed to ſee the Americans without "beard, or hair on their bodies, ſince the Chineſe and Tartars, if "we credit hiſtorians, are equally deprived of it. Hippocrates tells "us the Scythians of his time were without them. The Huns were "perhaps the deſcendants of the Scythians; for, as Fernandez relates, "they grow old without beards, and become adult without the or-"naments of puberty. The hiſtory of Hyton, the Armenian, who "fled from Tartary in 1305, and became a monk at Cyprus, in-"forms us the Tartars, particularly thoſe of Catay, have no beard: "and how many people in Aſia and Africa are in the ſame ſitua-"tion!"—*French Editor.*

ſingular countenance, diſtinguiſh the Eſquimaux from all other Americans. The former, in my opinion, reſemble the Greenlanders, and inhabit the coaſt of Labrador, Hudſon's Straits, and a ſtrip of land along the whole extent of America, up to the Peninſula of Alaſka. It is doubtful whether Aſia or Greenland was the original country of theſe people, but that queſtion is frivolous, and will, probably, remain for ever problematic and undecided. Suffice it to ſay, the Eſquimaux are a people who delight more in fiſhing than the chace, and preferring oil to blood, nay, perhaps, to every thing elſe, commonly eat their fiſh raw. The framing of their canoes is always covered with ſkin of the ſea-wolf very tightly ſtretched. Nimble and active in all their movements, they differ little from ſea-calves, and wanton in the water with as much agility as if naturally amphibious. Their face is almoſt ſquare, their eyes and breaſt large, their figure ſhort. Of all theſe characteriſtics not one agrees with the natives of *Port des Français*, who are much larger, meagre, far from robuſt, and very unſkilful in the conſtruction of their boats, which are formed of an excavated tree, raiſed on each ſide with a ſingle plank.

The latter catch fiſh like us by ſtopping the rivers, or with a line, which they uſe in a very ingenious manner. They faſten a large bladder of the ſea-wolf to each line, and abandon it to the waves. Every canoe throws out 12 or 13 lines. When a fiſh is hooked he carries off the bladder, and is purſued by the canoe. Thus two men are enabled to attend 12 or 15 lines, without the trouble of holding them in the hand *.

Theſe

* "I cannot think that this was altogether deſigned as an ornament to their hooks, but that it has ſome religious alluſion, and poſſibly is intended as a kind of deity, to enſure their ſucceſs in fiſhing, which is conducted in a ſingular manner. They bait their hook with a kind of fiſh, called by the ſailors *ſquids*, and having ſunk

These Indians have made far greater progress in the arts than in morals, and their industry is more advanced than that of the inhabitants of the South Sea Islands. I must, however, except agriculture, which, by rendering man domestic, securing him a subsistence, and subjecting him to the fear of the land he has cultivated being exposed to ravages, contributes more, perhaps, than any other cause to soften his manners, and render him fit for society.

The Americans of *Port des Français* are acquainted with the method of forging iron and moulding copper. They spin the hair of various animals, and, with a needle, form of that wool a manufacture similar to our tapestry. With this web they mingle strips of the otter skins, which makes their cloaks resemble the finest silk shag. In no part of the world are straw hats and baskets more skilfully made. They adorn these with pleasing designs; and sculpture, in a passable manner, men and animals in wood and stone. They decorate boxes of an elegant form with shell-work, and cut the serpentine stone into jewels, to which they give the polish of marble. Their arms consist of the poignard already described, a lance of wood, hardened in the fire, or of iron, according to the riches of the proprietor, and a bow and arrows usually pointed with copper. But their bows are in no respect remarkable, and much weaker than those of many other nations.

I found among their jewels pieces of yellow amber, but know not whether it is indigenous, or imported, like their iron, from the ancient hemisphere, by an indirect communication with the Russians.

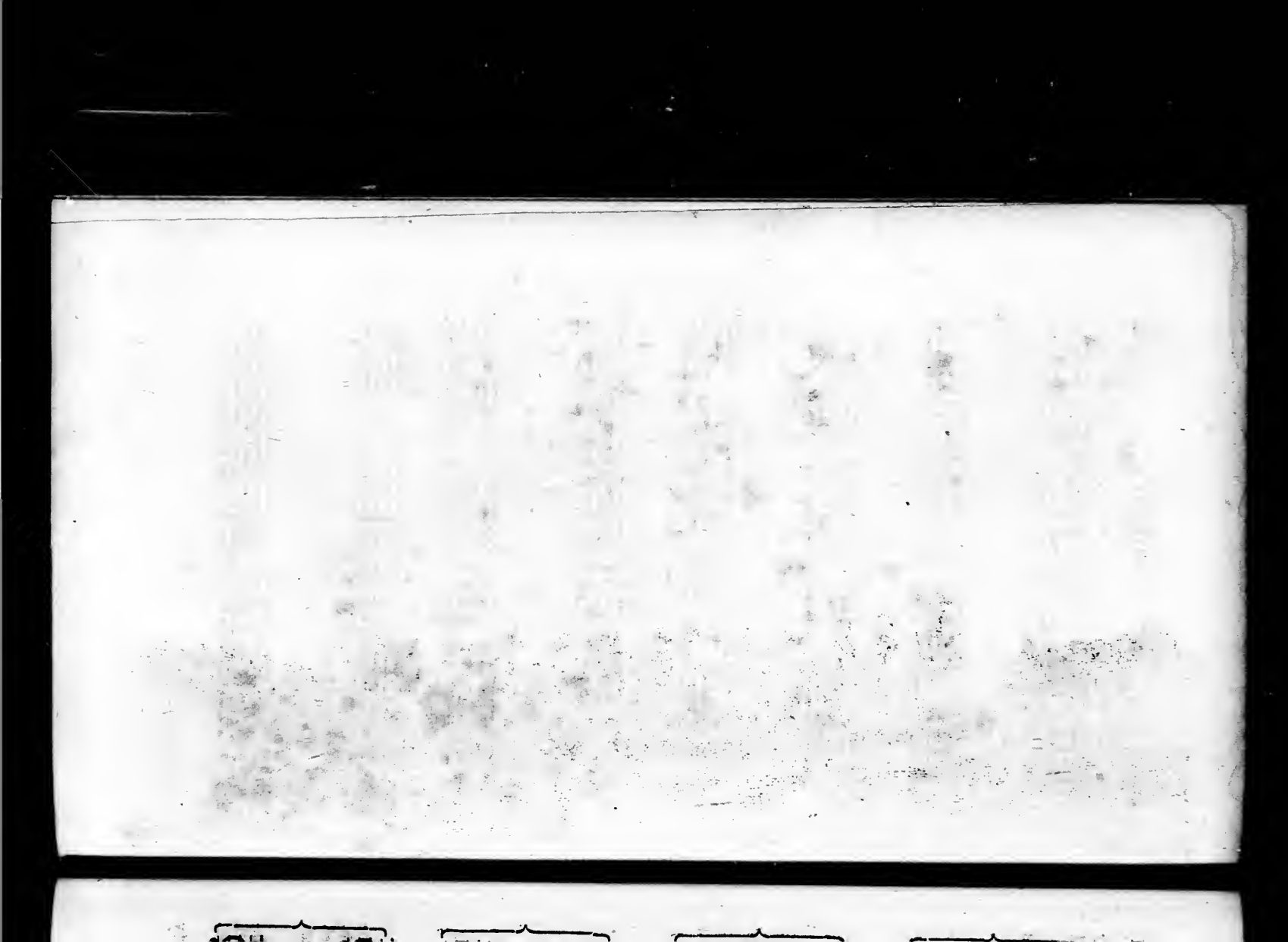
I have already mentioned that seven large canoes had been wrecked at the mouth of the harbour. Their

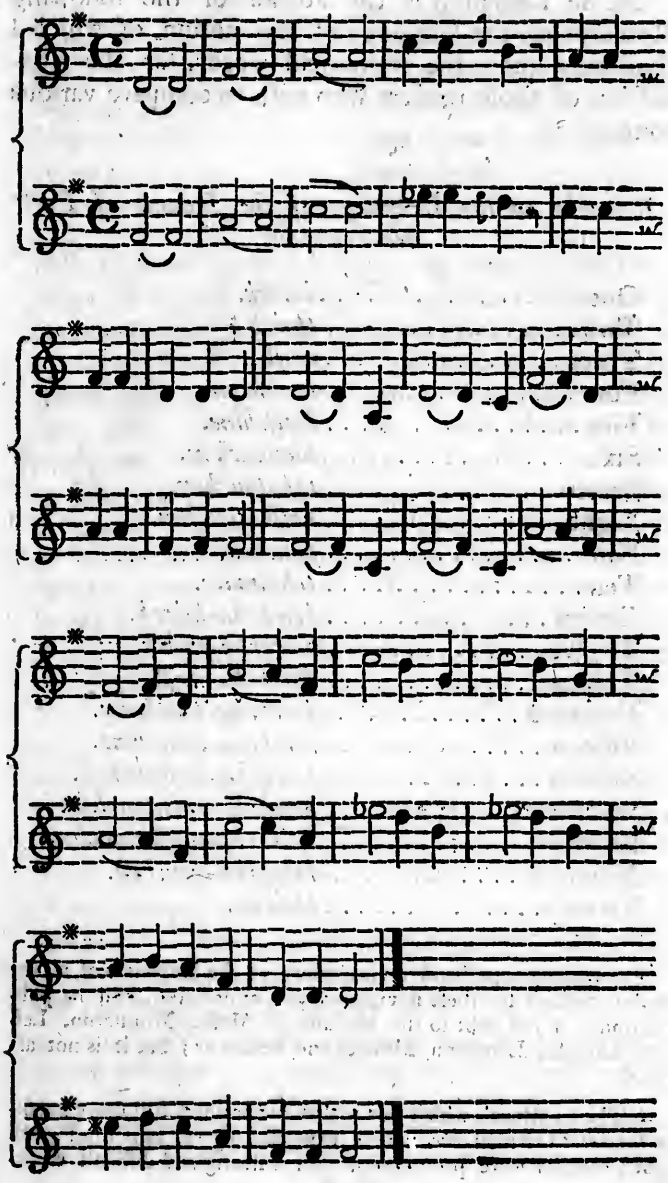
"sunk it to the bottom, they fix a bladder to the end of the line as "a buoy, and should that not watch sufficiently, they add another. "Their lines are very strong, being made of the sinews or intestines "of animals. One man is sufficient to look after five or six of these "buoys." *Dixon's Voyage*, p. 174.—*French Editor.*

dimenſions, as taken from the only one that eſcaped, were 34 feet long by four feet broad, and ſix deep. Theſe large dimenſions qualified them for expeditions of conſiderable length. They were covered with the ſkin of the ſea-wolf like thoſe of the Eſquimaux, which led us to imagine the *Port des Français* was an emporium only inhabited in the fiſhing ſeaſon. We thought it poſſible that the Eſquimaux in the vicinity of the Shumagin Iſlands, and of the peninſula explored by Captain Cook, might extend their commerce to this part of America, furniſhing it with iron, and other articles, and taking, with great advantage to themſelves, the otter-ſkins which they ſo eagerly deſire. The form of theſe canoes, and the great quantity of ſkins we dealt for (probably collected here for ſale to theſe traders), confirm this conjecture, which I merely throw out, becauſe it ſeems to account for the iron and other European articles they poſſeſs.

I have ſpoken of the paſſion of theſe Indians for play. That to which they devote themſelves with the greateſt fury is a game of pure hazard. They have 30 ſticks, each differently marked in the manner of dice. Of theſe they hide ſeven; each plays in his turn, and he who comes neareſt to the numbers on the ſeven ſticks wins the ſtake, which is uſually a piece of iron, or a hatchet. This game renders them ſerious and melancholy, though I have often heard them ſing; and when the Chief came on board, he generally firſt went all round the ſhip ſinging, with his arms extended in the form of a croſs, as a ſign of amity, and then came on board, performing a pantomime expreſſive of battles, of ſurprizes, or of death. The air which preceded this ballad was pleaſing and harmonious, and, as nearly as we could note it down, is as follows.*

* Thoſe who have the ſtrongeſt voices take the air a third lower, and the women a third above the principal part, while others take an octave, and often make a pauſe of two bars at the higheſt note.





M. de Lamanon is the author of the following Remarks on the language of this nation, of which I ſhall only quote the numerical words, for the ſatisfaction of thoſe readers who wiſh to compare various tongues.*

Remarks on the Language of the Indians of Port des Français.

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

* A more comprehenſive vocabulary of the languages of all the nations viſited by theſe navigators was announced, and its publication is a juſt debt to the aſſiduity of Meſſrs. Monneron, Leſſeps, Lavaux, Lamanon, Mongès and Receveur; but it is not arrived.

† The *r* guttural, which this nation pronounces ſtill more harſhly than the German *chr*, is here expreſſed by *rh*, as if the French word *rhabiller* were pronounced with a ſtrong and difficult vibration.

Thirty

Thirty ..... *neiſkrha.*
Forty ..... *taakhounrha.*
Fifty ..... *keitſchinerka,*
Sixty ..... *kleitouchourha.*
Seventy ..... *takatouchourha.*
Eeighty ..... *netſkatouchourha.*
Ninety ..... *kouehokrha.*
Hundred ..... *tchinecaterha*

" Our letters are not adapted to expreſs the lan-
" guage of this nation: for, though they have many
" ſounds ſimilar to ours, many of their articulations
" are totally foreign to us. They make no uſe of the
" conſonants, B, F, X, J, D, P, V, and notwithſtanding
" their talent for imitation, they were never able to
" pronounce the four firſt, or the L *mouillée* *, and GN
" *mouillé*. They articulate the R as if it were double,
" with a ſtrong vibration; and they pronounce the
" *chr* of the Germans with as much harſhneſs as the
" Swiſs of certain Cantons. They have an articulate
" ſound extremely difficult to catch, and which we
" could not endeavour to imitate, without exciting
" their riſibility. It is in ſome degree repreſented
" by the letters *khlrl*, which form one ſyllable, pro-
" nounced at the ſame time with the throat and the
" tongue. It occurs in the word *khlrleies*, which ſig-
" nifies *hair*. Their initial conſonants are, K, T, N, S, M,
" of which the former are thoſe moſt frequently uſed.
" None of their words begin with an R, and they
" almoſt always terminate in *ou*, *ouls*, *oulch*, or other
" vowels. Their guttural pronunciation, the great
" number of Ks, and their double conſonants, ren-
" der this language extremely harſh. It is even leſs
" guttural when ſpoken by the men than by women,
" as the wooden ornament they wear in their under

* Of this pronunciation the word mouillée is itſelf an example, as bagnio is of the *gn*.—*Tranſlator's Note.*

" lip, which they call *kentaga*, incapacitates them " from pronouncing the labials.

" The harſhneſs of their language is leſs ſtriking " when they ſing. I was unable to make many " obſervations on the parts of ſpeech they employ, " as it is extremely difficult to communicate abſtract " ideas by ſigns; but I diſcovered that they uſe " interjections to expreſs admiration, anger, and " pleaſure, though I do not believe they have any " articles, for I perceived no words that recur with " ſufficient frequency, or appeared to ſerve as con- " nectives to their diſcourſe. They are acquainted " with numbers, for which they have names, but " have no mode of diſtinguiſhing the plural from the " ſingular, either by a difference of termination or by " an article. I ſhewed them a ſea calf's tooth, " which they called *kaourré*, and they gave the ſame " name to a number of theſe teeth, without the leaſt " change in the ſound. Their collective nouns are " very few; nor have they ſufficiently generalized " their ideas to have formed words of abſtraction. " They have not even ſufficiently definite ideas to " avoid giving the ſame name to objects perfectly " diſtinct. Thus *kaaga* ſignifies at once *head* and " *face*, and *alcaou* both *chief* and *friend*. I perceived " no reſemblance between this language and that of " Alaſka, Norton Sound, Nootka, Greenland, or the " Eſquimaux, Mexicans, Nadoeſſis, and Chipawas, " whoſe vocabularies I have collated. I pronounced " ſeveral words of theſe languages, without their com- " prehending any of them, although I varied my pro- " nunciation as much as poſſible; but although there " is not perhaps a ſingle idea or thing expreſſed by " the ſame name among the Indians of *Port des* " *Français*, and the nations juſt named, there ought " to be a great affinity of ſound between this lan- " guage and that of the entrance of Nootka Sound,

" for

" for K is the predominant letter in each, and occurs " in almoſt every word. Their initial conſonants and " terminations are very often the ſame, and it is not " perhaps impoſſible this language may have a com- " mon origin with that of Mexico; but if ſo, this " origin muſt be very ancient, ſince their words have " no reſemblance, excepts in the elements of words " and not in their ſignification."

I ſhall conclude my account of this nation by obſerving, that we perceived no trace of cannibaliſm among them, though it is ſo general a cuſtom among the Indians of America, that I might even have to add this trait to the picture, had they been at war or taken a priſoner during our ſtay*.

CHAP. X.

DEPARTURE FROM PORT DES FRANÇAIS—EXPLORATION OF THE COAST OF AMERICA—BAY OF ISLANDS—PORT OF LOS REMEDIOS, AND PORT BUCCARELLI OF THE PILOT MAURELLO—CROYÈRE ISLANDS—ISLANDS OF SAN CARLOS—DESCRIPTION OF THE COAST FROM CROSS SOUND TO CAPE HECTOR—A GREAT GULPH OR CHANNEL—EXACT DETERMINATION OF ITS BREADTH——SARTINE ISLANDS—WOODY POINT OF CAPT. COOK—VERIFICATION OF OUR TIME-KEEPERS——BREAKERS POINT—NECKER ISLANDS—ARRIVAL AT MONTEREY.

THE forced ſtay I had recently made in *Port des Français*, obliged me to alter my plan of navigation on the coaſt of America, though I had ſtill time

* Capt. J. Meares has proved, in his voyages, that the nations who inhabit the N. W. coaſt of America are cannibals.—*French Editor.*

to

to range along it and determine its direction; but it was impoſſible to think of putting in at any other port, ſtill leſs to reconnoitre every bay. All my proceedings muſt now be ſubordinate to the abſolute neceſſity of arriving at Manilla by the end of January, and at China in the courſe of February, in order to employ the enſuing ſummer in exploring the coaſts of Tartary, Japan, Kamtſchatka, and even the Aleutian iſlands. I perceived with chagrin that ſo vaſt a plan ſcarcely admitted of our deſcrying objects at a diſtance, without clearing up any doubts regarding them; for being obliged to navigate within the reign of the monſoons, it was neceſſary either to loſe a whole year, or arrive at Monterey between the 10th and the 15th of September, and ſtay there but ſix or ſeven days to take in wood and water, and then traverſe as rapidly as poſſible the great ocean, over a ſpace of 120° of longitude, or near 2400 marine leagues: for between the tropics the degrees are nearly equal to thoſe of the equator itſelf. I had the greateſt reaſon to fear I ſhould not have time to viſit the Caroline Iſlands, or thoſe to the northward of the Marianas, in conformity to my orders. The exploration of the Carolines muſt neceſſarily depend, more or leſs, on the quickneſs of our run, which we had reaſon to expect would be very long, our ſhips being very bad ſailers. The geographical ſituation of theſe iſlands, which are far to the weſtward, (or to leeward) would not, without conſiderable difficulty, admit of comprehending them in the ultimate objects of my navigation to the ſouthward of the line.

Theſe various conſiderations determined me to fix a new rendezvous with M. de Langle, in caſe of our ſeparation. I had before appointed the ports of Los Remedios and Nootka: it was now agreed that we ſhould only touch at Monterey, which we preferred, becauſe, being the moſt diſtant, we ſhould have more wood and water to replace.

Our

Our misfortunes at *Port des Français* demanded ſome changes among our officers. I therefore gave M. Darbaud, a *garde de la marine*, and an extremely well informed man, orders to act as *enſeigne*; and to M. Broudou, a young volunteer, who had continually given me proofs of intelligence and aſſiduity ſince our departure from France, a commiſſion of *lieutenant de frégate*.

I recommended to the officers and paſſengers to ſell our furs in China, only for the profit of the ſailors; and this propoſal being acceded to unanimouſly and with enthuſiaſm, I gave M. Duſreſne an order to act as their ſupercargo, a commiſſion which he executed with a ſkill and aſſiduity I cannot too highly extol. He had charge of the purchaſe, packing, aſſorting, and ſale of the various ſpecies of furs; and as I am certain there was not a ſingle ſkin privately diſpoſed of, this arrangement gave us an opportunity to know with preciſion their price in China, which might have varied had there been a competition of ſellers. This alſo encreaſed the profit of the ſailors, who were thus convinced their intereſts and their health never ceaſed to be the principal objects of our attention.

The commencement of our new expedition was far from being fortunate or ſatisfactory to my impatient expectations. We only made ſix leagues in the firſt 48 hours, with light airs, which during that interval varied from north to eaſt, and to ſouth, with foggy, cloudy weather. We were ſtill three or four leagues from ſhore, and within ſight of low lands. We only perceived the mountains by intervals, ſo as to connect our bearings, and lay down with accuracy the direction of the coaſt. The latitudes and longitudes of the moſt remarkable points we determined by very good obſervations. I was extremely deſirous the wind ſhould permit me rapidly to explore this coaſt as far as Cape Edgecombe

or

or Enganno, as it had already been ſeen by Captain Cook, though he paſſed it at a conſiderable diſtance; but his obſervations are ſo exact, that he could only have committed errors infinitely minute, and I was convinced, that being equally limited in point of time with that celebrated navigator, I could not pay more attention than him to minutiæ, which muſt be the object of a ſeparate expedition, and would have employed us during ſeveral ſeaſons. I felt the greateſt impatience to arrive in 55°, and to have a little time to devote to this ſurvey, as far as Nootka, from which a gale of wind had driven Capt. Cook 60 or 80 leagues. It was in this part of America, according to M. Guignes, that ſome Chineſe muſt have landed, and it is in the ſame latitude that Admiral Fuentes found the mouth of the Archipelago of St. Lazarus,

I was very far from believing the conjecture of M. de Guignes, or the narrative of the Spaniſh admiral, whoſe very exiſtence I conteſt; but ſtruck with the obſervation I have already made, that all the iſlands and countries deſcribed in the ancient Spaniſh narratives, though very ill determined both in latitude and longitude, have been again diſcovered in theſe days, I was inclined to imagine ſome ancient navigator of that laborious nation had diſcovered a bight, whoſe entrance might be in this part of the coaſt; and that this fact alone had formed the baſis of the ridiculous romance of Fuentes and Bernarda. I had no intention however of entering this channel, ſhould I fall in with it. The ſeaſon was too far advanced, and I could not have ſacrificed to this reſearch the whole plan of my voyage, but in the hopes of arriving in the eaſtern ocean, by traverſing the continent of America; and being certain ſince the voyage of Hearn that this paſſage is a mere chimera*, I was

* La Pérouſe, too acurate himſelf to ſuſpect the narrative of Hearn to be a political impoſition, here adopts an opinion, of which hereafter I ſhall maintain directly the reverſe. See notes on pages 1 and 107.——*French Editor.*

fully reſolved only to determine the breadth of the channel, and its depth as far as 25 or 30 leagues, according to the leiſure I might have, leaving it to nations who, like the Spaniards, the Engliſh and the Americans, have poſſeſſions on that continent, to explore it more accurately, and which could be of no uſe to navigation in general, the ſole object of our voyage.

The fog, the rain, and the calms did not ceaſe till the 4th at noon, when we obſerved in 57° 45′ N. lat. at three leagues from land, which we only perceived indiſtinctly, on account of the fog. It diſperſed at four, and we clearly diſtinguiſhed the entrance of Croſs Sound, appearing to form two very deep bays, where it is probable ſhips might find very good anchorage.

It is at this ſound the high mountains covered with ſnow terminate. Their ſummits are from 13 to 1400 toiſes high. The lands that form the coaſt to the S. E. of Croſs Sound, though 8 or 900 toiſes high, are covered with trees to the top, and the chain of primary mountains ſeemed to go very far into the interior of that continent. At ſun-ſet I had the weſternmoſt point of Croſs Sound bearing N. 25° W., diſtant about five leagues: Cape Fair Weather then bore N. 50° W. and Mount Crillon N. 45° W. This mountain, which is almoſt as high as Mount Fair Weather, is to the northward of Croſs Sound, as Mount Fair Weather is to the northward of the bay *des Français*. Theſe points ſerve as land-marks to the harbour they ſurround, and it would be very eaſy to miſtake the one for the other in coming from the ſouthward, as their latitude did not differ 15 minutes. Mount Fair Weather is alſo accompanied with two leſs elevated mountains, and Mount Crillon, which is more iſolated, inclines its point to the ſouthward. I continued to range along the coaſt at a diſtance of three leagues, the mountains being conſtantly

ſtantly covered with fog. We only perceived the low lands at intervals, and endeavoured to diſtinguiſh the ſummits, leſt we ſhould break the connection of our bearings.

Our progreſs was very ſlow, advancing only 10 leagues in 24 hours. At day-break I ſaw a cape to the ſouthward of Croſs Sound, which I called *Cape Croſs**, bearing north 29° weſt. We were then abreaſt of an infinity of ſmall low iſlands very thickly wooded. The high hills appeared in the ſecond range, and we no longer perceived the mountains that were covered with ſnow. I approached theſe iſlands near enough to ſee the breakers on their coaſts from the deck, and I diſtinguiſhed ſeveral channels between them, that muſt have formed good roads. It is this part of the coaſt, Capt. Cook has called the *Bay of Iſlands*. At ſunſet we had the mouth of port de Los Remedios bearing E. 2° S., that of Guadaloupe Bay E. 21° S., and Cape Enganno E. 33° S.: but all theſe points and capes were very indiſtinct, owing to the fog which envelloped their ſummits.

From Croſs Sound to Cape Enganno, an extent of coaſt of 25 leagues, I am perſuaded there are twenty different harbours, and that three months would ſcarcely ſuffice to explore this labyrinth of navigation. I confined myſelf to the plan I had formed at my departure from *Port des Français*, to aſcertain with preciſion the beginning and the end of this cluſter of iſlands, with their direction along the coaſt, and the entrance of the principal bays.

On the 6th the ſky being clearer, we were able to take the ſun's altitude, and compare the true time with that of our time-keepers. Our latitude

* Capt. Cook alſo called it Cape Croſs, but fixes its latitude in 57 deg. 57 min. This difference muſt ariſe from the outline of the coaſt, which here preſents ſeveral capes: and Cook has doubtleſs determined the poſition of that, which on the chart appears moſt to the ſouthward.—*French Editor.*

was

was 57° 18′ 40″, and our longitude, according to the laſt rate of our time-keepers, as obſerved upon the *Iſle du Cénotaphe*, 138° 49′ 30″. I have already mentioned the great perfection of M. Berthoud's time-keepers: their loſs upon the mean daily motion of the ſun is ſo trifling and ſo uniform, that we have reaſon to believe, that artiſt has attained the greateſt degree of perfection of which they are ſuſceptible.

The 6th was a tolerably clear day, and our bearings were taken with as much facility as we could deſire. At ſeven in the evening we ſtill perceived Mount Crillon bearing N. 66° W. Mount St. Hyacinth N. 78° E. and Cape Enganno * E. 10° S. which laſt is a low land covered with trees, and ſtretching far out to ſea. Mount St. Hyacinth reſts upon it, and forms the fruſtum of a cone, but rounded off at top, and is at leaſt two toiſes high.

On the morning of the ſeventh we ſaw the oppoſite ſide of Cape Enganno to that we had coaſted the preceding evening. Mount St. Hyacinth was perfectly diſtinguiſhable, and we diſcovered to the eaſtward of it an extenſive bay, whoſe depth was concealed by the fog. But it is ſo open to the S. and S. E. winds, which are the moſt dangerous, that navigators ought to dread anchoring there†. Its ſhores are covered with trees, and of an equal height with thoſe to the ſouthward of Croſs Sound. A little ſnow covers the ſummits of the hills, which are ſo pointed and ſo numerous, that the ſmalleſt change of ſituation entirely alters their appearance. Theſe hills are ſome leagues within the land, and ſeem to be a third range of mountains. Smaller hills lie

* Mount St. Hyacinth and Cape Enganno are the Spaniſh names for Mount and Cape Edgecombe of Capt. Cook.—*French Editor.*

† Dixon anchored there to trade for furs; and gave it the name of Norfolk Sound. Its lat. was 53° 3′ N. and its long. 138° 16′ W. from the meridian of Paris. He anchored in 8 fathoms water over a ſandy bottom, at three quarters of a mile from the ſhore. Cook perceived the mouth of this creek on the ſecond of May 1778, but did not anchor there.—*French Editor.*

againſt

againſt their ſides, and are connected with a low and undulating baſe, extending as far as the ſea. Iſlands, reſembling thoſe already deſcribed, lie before this undulating ſhore; but in the chart we have only laid down with preciſion the moſt remarkable: the others are ſcattered about, merely to ſhew they are extremely numerous; for to the northward and ſouthward of Cape Enganno the coaſt is bordered with iſlands for the ſpace of 10 leagues. We had paſſed all theſe by ten in the morning, when the ſmall hills appeared clear of them, ſo that we could diſtinguiſh the windings of the ſhore. At ſix in the evening we ſaw to the N. E., a cape that ſtretched far out to the weſtward, forming with Cape Enganno the S. E. point of the great bight, a third of which I have already deſcribed to be crowded with ſmall iſlands. From the extremity of theſe iſlands to the new cape we ſaw two large bays *, which appeared to ſtretch very far in land. To this cape I gave the name of *Cape Tſchirikow*, in honour of the celebrated Ruſſian navigator, who landed on this part of America in 1741. Behind it we found to the eaſtward a large bay which I alſo named Tſchirikow bay. At ſeven in the evening I ſaw a cluſter of five iſlands †, ſeparated from the continent by a channel four or five leagues wide, which neither Capt. Cook nor the pilot Mau-

* Theſe two bays, which La Pérouſe named *Por. Necker*, and *Port Guibert*, are ſo near together, that it is impoſſible to aſcertain in which of them Dixon anchored. But that navigator having ſailed along the ſhore, to the right and left of his anchoring place, which he called Port Banks, only found bays much ſmaller than that he entered, and thoſe totally uninhabited.

The latitude of Port Banks is 56° 35′, its W. long. from Paris 137° 20′.—*French Editor.*

† Dixon has diſtinguiſhed theſe five iſlands by the name of *Foggy Iſlands.* La Pérouſe has placed them in 55° 50′ N. lat. and 137° 11′ W. long. Dixon in 55° 50′ N. lat. and 137° 0′ 45″, reduced to the meridian of Paris. I deem it unneceſſary to detail the reaſons, why the place aſſigned them by La Pérouſe ought on every account to be preferred.—*French Editor.*

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rello have noticed. I named them *Iſles de la Croyère*, from the celebrated French Geographer, Deliſle de la Croyère, who accompanied Capt. Tſchirikow, and who died during that voyage. As night was coming on I ſhaped a courſe to paſs outſide of them. The weſterly breeze continued in our favour throughout the eighth, when, by obſervation, we were in 55° 39′ 31″ N. lat. and 137° 5′ 23″ W. long. according to our time-keepers. We perceived ſeveral great openings between conſiderable iſlands, which preſented themſelves to us in various points of view, the continent being ſo far from us, that we no longer perceived it. This new Archipelago, which is very different from the preceding, commences four leagues to the S. E. of Cape Tſchirikow, and apparently extends as far as Cape Hector. The currents in the vicinity of theſe iſlands were very ſtrong, and we felt their influence, though at a diſtance of three leagues. Port Bucarelli of the Spaniſh pilot Maurello is in this part. I could not underſtand either his chart or the diſcourſe intended to elucidate it: but his volcanos, and his Port Bucarelli are ſituated in iſlands 40 leagues perhaps from the continent. I confeſs I ſhould not be much ſurpriſed, if from Croſs Sound we had only coaſted along iſlands *: for the appearance of the coaſt was very different from that further to the northward, and I ſaw the high chain of Mount Crillon extending to the eaſtward as far as I could diſtinguiſh.

On the morning of the ninth, continuing to ſail along the coaſt at a diſtance of three leagues, I ſaw the iſles of San Carlos, the principal of which lies S. E.

* Dixon is of the ſame opinion, which appears to be confirmed by every probability,—"ſo that we were near the middle of the "iſland towards the northward and eaſtward. In this ſituation we "ſaw high land to the N. W. near 30 leagues diſtant, and which "evidently was the ſame we had ſeen on the firſt of July. This cir-"cumſtance clearly proved the land we had been coaſting along "for near a month, to be a group of iſlands." *Dixon's Voyage*, p. 217.—*French Editor.*

and N. W., and may be two leagues in circumference. A long chain connects it with other little islands, which are very low, and stretch far out into the channel. I am persuaded however, there is a channel of considerable width *, though I was not sufficiently certain to attempt it, particularly, as I must have entered it before the wind, and in case my conjecture was ill founded, it would have been extremely difficult to have weathered the islands of San Carlos, while I should lose that time which was extremely precious. I therefore ranged along that farthest from the continent, at the distance of half a league, and as I had its S. E. point bearing E. and W. at the same distance at noon, we ascertained its place with the greatest precision, being 54° 48′ N. lat. and 136° 19′ W. long.

Having now a strong breeze from the W. N. W. with foggy weather, I stood in under a crowd of sail for the land, which became covered with fog as we approached. At half past seven in the evening we were scarcely a league distant, and yet I could with difficulty distinguish it, though I perceived the breakers from the deck. I had then a large cape bearing E. N. E. by the compass; but seeing nothing beyond it, we could not possibly determine the direction of this land. I therefore resolved to put about, and wait for clearer weather. The fog, however, never dispersed but for a single moment.

On the 10th of August towards noon, we were in 54° 20′ N. lat. by observation, and 135° 20′ 45″ W. long. by our time-keepers. I had stretched in for the land at four in the morning, and perceived it during this clear interval at a league and half distance to the S. E.; when it resembled an island. But the gleam was so transient, and so limited in extent, that it was

† This channel seems to be real. Dixon also saw it, and made use of it to delineate, though partly by guess, the strait to which he has given his own name.—*French Editor.*

impossible

impoſſible to diſtinguiſh any thing. We had not even ſuſpected land in that point of the compaſs; which increaſed our uncertainty concerning the direction of the coaſt. We had in the night croſſed the moſt rapid currents I had ever experienced in the open ſea; but as we found no difference between our obſervations and reckoning, it is probable they were occaſioned by the tide, and therefore counteracted each other.

In the night between the 10th and 11th, the weather became very bad: the fog thickened, it was very freſh, and I tacked to the offing. At day-break we ſtood in again for the land, and got ſo cloſe in ſhore as to recognize, at one o'clock, the ſame point we had ſeen the preceding evening, extending from N. N. E. to S. E. by S.; and thereby connected almoſt all our bearings, except an interval of 8 or 9 leagues, where we did not ſee land, whether owing to the fog, or ſome deep bay or other opening: but I ſhould rather ſuppoſe the latter, from the violence of the currents. Had the atmoſphere been clearer, no doubt would have been left on this ſubject, for we got within a league of the ſhore, and diſtinctly perceived the breakers. The coaſt trends much more to the S. E. than I ſhould have imagined from the chart of the Spaniſh pilot, which cannot be at all relied on. We obſerved at noon in 54° 9′ 26″ N. lat. and I continued to range the coaſt, at a league diſtance, till four in the afternoon, when the fog was ſo thick, that we could not diſtinguiſh the Aſtrolabe, though within hail. I therefore ſtood out to the ſea. We had no clear interval on the 12th, and I got ten leagues from the land in conſequence of my uncertainty reſpecting its direction. On the 13th and 14th the weather was foggy and almoſt calm; but I took advantage of ſome light breezes, to near the coaſt, from which we were ſtill five leagues diſtant at ſix in the evening.

Since we paſſed the iſlands of San Carlos we could not ſtrike ground, even at a league from the land, with a line of 120 fathoms.

On the morning of the 15th we got within two leagues of the coaſt, which in ſome parts was ſkirted by breakers, extending a conſiderable diſtance towards the offing. The wind was eaſterly, and we ſaw a ſpacious bay. Our horizon was very extenſive, tho' the ſky was overcaſt, and we diſtinguiſhed 18 or 20 leagues of coaſt on each ſide, extending from N. N. E. to S. S. W. and ſeeming to run S. S. E. and N. N. W. much more to the ſouthward than I had imagined.

At eight in the morning I was obliged to ſtand out to ſea, on account of a thick fog that enveloped us, and which continued till the 16th at ten o'clock, when we had a very confuſed view to the N. E. but the fog ſoon obliged us to regain the offing. The whole of the 17th was calm, the miſt at length diſperſed, and I ſaw the coaſt at eight leagues diſtance. Though there was not wind enough to near it, we took excellent lunar obſervations, for the firſt time ſince our departure from *Port des Français*. Our latitude was 53° 12′ 40″ north, and longitude, by our time-keepers 136° 52′ 57″, and the mean reſult of the diſtances of the ſun and moon gave 137° 27′ 58″ or 35′ 1″ more to the weſtward: and that of the Aſtrolabe 15 minutes leſs. The breeze having freſhened from the W. N. W., and the weather continuing clear, I approached the land, and on the 18th at noon was only a league and a half diſtant. Preſerving that diſtance, I ranged along the coaſt, and ſaw a bay ſtretching ſo far in land, that I could not perceive its ſhores. I called it *La Touche Bay*. Its N. lat. is 52° 39′, and its long. 134° 49′ weſt, and I doubt not it affords very good anchorage.

A league and a half further to the eaſtward, we ſaw a bight, where ſhips might poſſibly find a ſhelter equally

equally ſecure; but it appeared much inferior to La Touche Bay. From 55 to 53° the ſea was covered with the ſpecies of diver, called by Buffon *macareux de Kamtſchatka*. Its body is black, its beak and feet red, and two white ſtreaks riſe like a tuft upon its head, ſimilar to thoſe of the catakoua. We ſaw ſome of theſe birds to the ſouthward, but more rarely, and thoſe appeared mere birds of paſſage. Theſe birds never go above five or ſix leagues out to ſea, and therefore, when navigators meet with them in foggy weather, they may almoſt certainly infer the vicinity of land. We killed two, which were ſtuffed. This bird was unknown previous to the voyage of Behring.*

On the 19th at night we ſaw a cape, apparently terminating the coaſt of America. The horizon was very clear, and we only perceived four or five ſmall iſlands near it, which I named *Iſlots Kerouart*, and the point Cape Hector.† We were becalmed during the whole night at three or four leagues from the land, which a light breeze enabled me to approach at day-break. I was then convinced the coaſt we had followed for 200 leagues terminated here, forming in all probability the entrance of a very extenſive gulf, or channel, for I perceived no land to the caſtward, though the weather was very clear. I therefore directed my courſe to the northward to diſcover the oppoſite ſide of the land I had coaſted to the eaſtward. I ranged along the Kerouart Iſlands and Cape Hector, at a league diſtance, and croſſed ſome very ſtrong currents, which even obliged me to bear away and ſtand off from the coaſt. The poſition of Cape Hector, which forms the entrance of this new channel, ap-

* Capt. Cook alſo met with this ſpecies on the coaſt of Alaſka. *French Editor.*

† This is the Cape St. James of Dixon, of which the north latitude is according to La Pérouſe 51 deg. 57 min. 20 ſec. W. long. 133 deg. 37 min.; according to Dixon N. lat. 51 deg. 46 min. W. long. reduced to the meridian of Paris 132 deg. 20 min.—*Fr. Editor.*

peared to me very important to determine. Its N. lat. is 51° 57′ 20″ and its W. long. by our time-keepers 133° 37′. Night coming on, prevented my getting further to the northward, and I therefore ſpent it in making ſhort boards. At day-break I ſteered the ſame courſe as the preceding evening, and the weather being clear, ſaw the oppoſite coaſt of La Touche Bay, which I named *Cape Buache*; and above 20 leagues of the eaſt coaſt, along which I had ranged on the preceding days. Recollecting the outline of the land from Croſs Sound, I was much inclined to think this bight reſembled the ſea of California, and extended to the 57th degree of N. lat.: but neither the ſeaſon, nor my other objects admitted of my determining this point. I reſolved, however, to aſcertain the breadth eaſt and weſt of this channel, or gulph, whichever it be called, ſhaping my courſe to the N. E. On the 21ſt at noon, I was by obſervation in 52° 1′ N. lat. and 133° 7′ 31″ W. long, Cape Hector bearing S. E. diſtant 10 or 12 leagues; but we could not ſtrike ground without our longeſt line. The wind ſoon ſhifted to the S. E. and a thick fog ſucceeded the clear ſky, which had that morning permitted us to diſcover land 18 or 20 leagues diſtant. It now blew very ſtrong, and it became imprudent longer to continue my courſe to the N. N. E. I therefore hauled cloſe to the wind, and ſtood off and on during the night, under cloſe-reefed topſails. At day-break the wind having moderated, though the horizon was equally hazy, I ſtood in again for the land, which appeared at noon through the fog, our latitude by account being then 52° 22′: the coaſt extended from N. by E. to E. by N. our depth of water being 100 fathoms over a rocky bottom. After a clear interval of ſhort duration the fog returned, and bad weather appeared to be coming on. I therefore ſtood out to the offing, after having fortunately taken very good bearings, and aſcertained the width of the channel, or gulph, from eaſt to weſt; which was about 30 leagues between

between Cape Hector and *Cape Fleurieu* *, giving it the same name as to the island lying most to the S. E. of the new cluster I had discovered on the eastern coast of this channel. It was behind this cluster of islands I perceived the continent, where the primary mountains, destitute of trees, and covered with snow, appeared at various distances, and having peaks which appeared to be above 30 leagues inland. Yet we had only seen little hills since we passed Cross Sound, and my conjectures concerning a bight of six or seven degrees to the northward became still more probable. The season precluded my further elucidating this opinion, it being already the end of August, the fogs almost uninterrupted, and the days shortened. But a much more important consideration, the danger of missing the monsoon of China, induced me to abandon this research, to which we must have sacrificed at least six weeks, on account of the precautions necessary in this kind of navigation, which ought only to be undertaken in the longest and finest days of the year. A whole season would scarcely suffice for such an expedition, which ought to be the object of a separate voyage. Ours was infinitely more comprehensive, and therefore its design was accomplished by an exact determination of the width of the channel, which we ran up about 30 leagues to the northward. We also ascertained the latitudes and longitudes of the Capes, which form its entrance, with a precision entitled to equal confidence with those of the most remarkable capes of the coasts of Europe. I perceived with chagrin, that during 23 days since we departed from *Baie des Français*, we had made very little way; and we had not a moment to lose before our arrival at Monterey. The reader will easily perceive, that during

* Dixon calls it Cape Cos. Its N. lat. according to La Pérouse, is 51 deg. 45 min. W. long. 131 deg. 15 min. according to Dixon, N. lat. 51 deg. 30 min. W. long. from Paris 130 deg. 32 min.—*French Editor.*

the whole courſe of this expedition, my imagination and ideas were extended 2 or 3000 leagues from my ſhip, becauſe my courſe lay through the region of the monſoons, or was ſubject to the influence of ſeaſons, in all the parts of either hemiſphere we were deſtined to explore: being obliged to navigate in high latitudes, and to traverſe between, New Holland and New Guinea, ſtraits apparently ſubject to the ſame monſoons, as thoſe of the Moluccas or the iſlands of that ſea.

The fog was very thick during the night, and I ſteered S. S. W. At day-break we had an interval of very clear weather, which, however, was of ſhort duration. At 11 o'clock the atmoſphere became quite clear. We then had Cape Fleurieu bearing N. E. by N., and took excellent obſervations. Our N. lat. was 51° 47′ 54″, and our W. long. 132° 0′ 50″ by our time-keepers. We were becalmed the whole day, but the wind changed to the N. W. after ſun-ſet, with a very hazy horizon, before which I had ſet Cape Fleurieu bearing N. by E., its latitude and longitude as determined by M. Dagelet being 51° 45′, and 131° 0′ 15″.

I have already ſaid this Cape forms the point of a very high iſland, behind which I then no longer perceived the continent. It was concealed by the fog, which became ſtill thicker during the night: and I often loſt ſight even of the Aſtrolabe, though within hearing of her bell.

At day-break the ſky was clear, and Cape Fleurieu bore N. W. 18° W. diſtant 18 leagues. The continent extended to the eaſtward, and the horizon, though rather hazy, admitted of my perceiving it at a diſtance of 20 leagues. I ſtood to the eaſtward in order to approach it, but the coaſt was preſently obſcured again, though a clear ſpace to the S. S. E. allowed me to diſcover a cape in that point of the compaſs.

I now changed my courſe, to avoid being embayed, by

by running to the eaſtward, before the wind, to a gulph from which I ſhould find it difficult to get out. But I ſoon perceived this land to the S. S. E., towards which I was ſteering, conſiſted of ſeveral cluſters of iſlands, extending from the continent to the iſlands in the offing, and on which I did not perceive a ſingle ſhrub. I paſſed within a mile of them, and ſaw graſs and drift wood upon the ſhore. The latitude and longitude of the weſternmoſt of them was 50° 56′, and 131° 38′. I named theſe various cluſters, *Iſles Sartine.** Probably a paſſage might be found between them; but it would be imprudent to attempt it without much precaution. After weathering them, I ſtood in for the continent, ſteering E. S. E. It extended from N. N. E. to S. E. by E., and the horizon was ſomewhat hazy, though conſiderably extenſive; and if we could not perceive the ſummits of the mountains, we perfectly diſtinguiſhed the low lands.

I ſtood off and on all night, to avoid paſſing the woody point of Captain Cook, which that navigator laid down, forming a continuation of the coaſt from Mount St. Elias to Nootka, and which, by affording me an opportunity of comparing our longitudes with his, baniſhed every doubt that might have remained concerning the accuracy of our obſervations. At day-break I ſtood in for the land, and paſſed at the diſtance of a league and half of the woody point, which, at noon, bore N. by W., diſtant about three leagues. Its lat. is preciſely 50° 4′ N., and its long. 130° 25′. W. Captain Cook, who did not approach ſo near this point, and only determined its place by bearings, lays it down in his chart in 50°, and 130° 20′ (meridian of Paris) that is four miles more to the ſouthward, and five miles more to the eaſtward. But our obſervations deſerve more confidence, becauſe

* The iſlands of Beresford of Captain Dixon, who lays them down in 50 deg. 52 min. N. lat., and 132 deg. 3 min. W. long. from the meridian of Paris.—*French Editor.*

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we were much nearer to the land, and our reckoning was less subject to error with regard to the distance. I may here be allowed to remark the astonishing precision of the new method, which will, in less than a century, ascertain the true place of every spot of the earth, and contribute more to the advancement of geography, than the united labours of every preceding age.

On the 25th I continued to run to the eastward towards the entrance of Nootka, which I was desirous to make before night, although it could not be very important, after having precisely determined the position of the woody point. A very thick fog, which arose at five in the evening, entirely concealed the land, and I directed my course towards Breaker's Point, 15 leagues to the southward of Nootka, in order to survey the coast between Cape Flattery and that point, a space of about 30 leagues, which Capt. Cook had no opportunity to explore.

On the 26th the weather was very foggy, and the wind shifted between N. E. and S. E. by sudden squalls: the barometer fell, but there was no wind. Thus we were becalmed, and had not age-way till the 28th. I had taken advantage, however, of some light breezes to get off the coast, which I imagined to trend to the S. E. We were now surrounded by small land birds, that rested on our rigging, and several of which we took; but their species are so common in Europe, as not to merit description. At length on the 28th, at five in the evening, we had a clear interval, when we recognized and set Cook's Breaker's Point, which bore north, the land stretching from thence to the N. E., and, although the clear interval was of short duration, it afforded us an opportunity of taking good bearings.

The atmosphere was equally obscure on the 29th of August; but the barometer rose, and I stood in for the land, hoping for clear weather before night, and

and ſounding every half hour. We paſſed from 70 fathoms water, with a ſandy bottom, to one of round flints and 40 fathoms; and ſtanding on, after a league fell again into 75 fathoms water, with a bottom of muddy ſand. It was evident we had paſſed over a bank, though it is not very eaſy to explain, how a mountain of round flints 150 feet high, and a league in extent, ſhould be placed on a flat bed of ſand eight leagues in the offing. We know theſe flints become round only by continual friction, and this accumulation at the bottom of the ſea, ſuppoſes a current ſimilar to that of a river.

At length my hopes of the fog diſperſing at ſun-ſet were realized, and we took a ſurvey of the land from E. N. E. to N. W. by N., a ſurvey which exactly united with that of the preceding evening. We were at noon in 48° 37′, by obſervation, and our longitude 128° 21′ 42″ by our time-keepers. The laſt point we had ſeen bearing S. E. could not be above ſix or ſeven leagues from Cape Flattery, which I was very deſirous to make, had not the fog been too thick.

On the 30th the ſea became very heavy, and the wind variable between S. and S. W., when I ſtood out to ſea. Having an horizon of leſs than half a league, I ſteered a courſe parallel to the coaſt, in order ſpeedily to arrive in 47°, and explore it as far as 45°, that interval forming a hiatus in Captain Cook's chart.

On the 1ſt September, I got ſight, at noon, of a point or cape, bearing N. N. E. diſtant about 10 leagues, and preciſely in 47° by our bearings. The coaſt trended to the eaſtward, and I approached within three or four leagues of it: but its outline was indiſtinct, and all its windings obſcured in fog. Our lat. obſerved at noon, was 46° 36′ 21″ N., our long. 127° 2′ 5″ W. by our time-keepers, and 126° 33′ by lunar obſervations. The currents on this coaſt are uncommonly violent. We were in a vortex that did not permit

permit the ſhip to ſteer, though with a wind that would have carried us three miles an hour, and at a diſtance of five leagues from land.

I ranged along the coaſt during the night under eaſy ſail, and ſteering to the ſouthward. At day-break I ſtood to the eaſtward, to near the land; but we were becalmed at four leagues from the ſhore, and toſſed about by the currents, which made us put about every moment, and kept us in continual fear of running foul of the Aſtrolabe, who was in no better ſituation. Fortunately we had a good muddy bottom to anchor upon, had the currents ſet us in ſhore; but the ſea was very heavy, and our cables would, with difficulty, have reſiſted the pitching of the ſhip. Cape Redondo of the Spaniards bore E. 5° S, and the land ſtretched from thence to the S. Our latitude at noon was 45° 55′ N., and our longitude 126° 47′ 35″ W. by our time-keepers, and 126° 22′ by lunar obſervations. The weather had at laſt admitted of theſe obſervations the preceding evening, which was but the ſecond opportunity ſince our departure from *Port des Français*. They differed from our time-keepers only 25′ 35″. This calm day was one of the moſt uneaſy we had paſſed ſince our departure from France. We had not a breath of wind during the night, but ſounded every half hour, in order to drop anchor, notwithſtanding the heavy ſea, in caſe we were drifted towards the land; but we always found 80 fathoms water over a muddy bottom.

At day-break we were at the ſame diſtance from the ſhore as the preceding evening, and we obſerved, as on the day before, in 45° 55′; our bearings were nearly the ſame, and being driven to and fro by currents, which counteracted each other, we ſeemed to have been turning, as it were, upon a pivot, during 24 hours.

At length, at three o'clock, a light breeze ſprung up from the N. N. W. by the aid of which we were able

able to gain an offing, and get out of the currents, in which we had been engaged during two days. This breeze carried before it a body of miſt, in which we were enveloped, and which made us loſe ſight of the land. We had now ſcarcely more than five or ſix leagues of coaſt to plow as far as lat. 45°, where Captain Cook's obſervations recommenced. The weather was too favourable, and I was too much preſſed for time, not to take advantage of this fair wind. We therefore crouded ſail, and ſteered S. by E. almoſt parallel to the coaſt, which lay N. and S. The night was fine, and at day-break we ſaw land bearing N. by E. the ſky being clear in that quarter, though very foggy to the eaſtward. We ſaw the coaſt, however, to the E. N. E. and as far as E. S. E. at times, though only for a moment. At noon, our latitude, by obſervation, was 44° 41′ N., and our longitude 126° 56′ 17″ W. by our time-keepers, at about eight leagues from the coaſt, which we approached by ſteering a little more to the eaſtward. At ſix in the evening our diſtance off ſhore was four leagues, and the land extended from N. E. to E. S. E. and was very much covered by fog. The night was fine, and I ranged along the coaſt, which we diſtinguiſhed by moonlight. The fog obſcured it at ſun-riſe, but it emerged at noon, during a clear interval, extending from N. E. to S. by E. the depth of water being 75 fathoms.

Our latitude was 42° 58′ 56″, and our longitude, by the time-keepers, 127° 5′ 20″. At two o'clock we were a-breaſt of nine ſmall iſlands, or rocks, lying about a league off *Cape Blanco*, which bore N. E. by E.: I named them *Necker Iſlands*. I continued to range along the land, ſteering S. S. E. At three or four leagues diſtance we only perceived the ſummits of mountains above the clouds, covered with trees, and without ſnow. At night the land ſtretched as far as the S. E. but our people looking out at the maſt-head declared they ſaw it as far as the S. by E. Uncertain of the direction of this coaſt, which had never

never been explored, I made eaſy ſail, ſteering S. S. E. At day-break we ſtill perceived the land, extending from the N. to N. by E. I ſteered S. E. by E. to approach it, but at ſeven in the morning a thick fog entirely concealed it. We found the atmoſphere leſs pure in this part of America than in high latitudes, where navigators enjoy, at leaſt by intervals, a view of every thing that is above their horizon, whereas here the windings of the land did not become once diſtinctly viſible. On the 7th the fog became ſtill thicker than the preceding day; yet it cleared away towards noon, when we ſaw ſummits of mountains to the eaſtward, at a conſiderable diſtance. As we had made good a ſouth courſe, it is evident that from 42° the coaſt begins to fly off to the eaſtward. Our lat. was at noon, by obſervation, 40° 48′ 30″ N. and our long. 126° 59′ 45″ W. by the time-keepers; and I continued to ſtand in for the land, from which I was only four leagues diſtant at the cloſe of day. We then perceived a volcano, at the top of a mountain bearing E. the flame of which was very bright; but a thick fog ſoon entirely concealed this object, and we were again obliged to ſtretch off from the land. As I feared, that by ſteering parallel to the coaſt, we might fall in with ſome iſland or rock, lying at a diſtance from the continent, I ſtood out to ſea, for the fog was very thick. On the 8th, towards 10 o'clock in the morning, we had a clear interval, when we perceived the ſummit of the mountains, but an impenetrable barrier of fog concealed the low-lands from our view. The weather had now become very bad, it blew very freſh, and the barometer fell conſiderably. I therefore continued running to the S. E. till the cloſe of the day; a courſe which, by keeping along the coaſt, would bring us nearer to it, but we had loſt ſight of it ſince noon, and the horizon was ſo thick at duſk, that I might have been very near the ſhore without being able to diſtinguiſh it. As there was an appearance of a gale of wind, and ſhould it come

come from the W. I ſhould be embayed, I reſolved to ſtand off under the fore-ſail and main-top-ſail. It ſoon blew hard, but not equal to what I expected. At day-break the ſky was clouded, but the wind moderated, and I ſtood in to the eaſtward for the land. The fog ſoon obliged me to change my courſe, and ſteer nearly parallel to the coaſt, which I ſuppoſed to lie S. by E. The atmoſphere was no clearer on the 10th and 11th, and the reſult of our courſes theſe two days was alſo S. by E.; our horizon never extending to two leagues, and being very often leſs than a muſket-ſhot. Our latitude however was 36° 58′ 43″ by obſervation, and our longitude, by the time-keepers, 126° 32′ 5″. Either the currents or a bad reckoning had carried us 30 miles to the ſouthward, but we were ſtill 16 miles to the northward of Monterey. I ſteered E. ſtanding right in for the land; for though the atmoſphere was foggy, we had an horizon of two leagues. I ſtood off and on throughout the night, and the ſky was equally cloudy the next day, but I continued ſtanding in for the ſhore. At noon our longitude was 124° 52′, but I did not ſee land. The fog returned at four in the afternoon, and I determined to make ſhort boards, till the weather became clearer. We muſt then have been very near the coaſt, as ſeveral land-birds hovered around our ſhips, and we took a gyrfalcon. The fog continued throughout the night, and at 10 the next morning we perceived the land very much covered with fog, and very near us. It was impoſſible however to diſtinguiſh it, though I approached within a league, and ſaw the breakers very diſtinctly, being in 25 fathoms water; but though I was certain we were then in the bay of Monterey, it was impoſſible to diſcover the Spaniſh ſettlement in ſuch foggy weather. At duſk I again ſtood out to ſea, and the next day ſteered in for the land with a thick fog, which did not diſappear till noon. I then kept the coaſt cloſe aboard,

and

and at three in the afternoon we got ſight of the fort of Monterey, and two three maſted ſhips in the road. The contrary winds obliged us to anchor two leagues from the land, in 45 fathoms, over a muddy bottom; and the next day we dropped anchor two cables length off ſhore, in 12 fathoms water. The commandant of theſe two ſhips, Don Eſtevan Martinez, ſent us pilots on board during the night, having been apprized of our expected arrival in this bay by the Viceroy of Mexico and the Governor of the Preſidio.

It is remarkable, that during this long run, though conſtantly enveloped in the thickeſt fogs, the Aſtrolable was always within hail, till I gave her orders to reconnoitre the entrance of Monterey.

Before I conclude this chapter, which will only be intereſting to geographers and navigators, I think it neceſſary to declare my opinion on Admiral Fuentes's channel of St. Lazarus. I am convinced no ſuch Admiral ever exiſted *, and that a navigation in the interior of America, acroſs lakes and rivers, performed in ſo ſhort a ſpace of time, is ſo abſurd, that nothing but that love of ſyſtem, ſo prejudicial to every ſcience, would have prevented geograpers of a certain reputation from rejecting this hiſtory: a hiſtory, totally deſtitute of probability, and fabricated in England, at a time when the partizans and oppoſers of the N. W. paſſage ſupported this opinion, with as much enthuſiaſm, as could at that time have fired the public mind in France, on queſtions of theology ſtill more ridiculous and futile. The legend of Admiral Fuentes reſembles thoſe pious frauds, which ſound reaſon has ſince rejected with contempt, and which cannot bear the light of inveſtigation. But it may be conſidered almoſt certain that from Croſs Sound, or at leaſt from Port de Los Remedios to Cape Hector, all the navigators have only coaſt-

* See note on page 107.

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ed the islands situated in 52°, and that between these and the continent is a channel, whose breadth east and west may be considerable, though I do not think it can exceed 50 leagues, as it is reduced to 30 at its mouth, between Cape Fleurieu, and Cape Hector. This channel is probably full of islands, which render its navigation difficult; and I am persuaded, that between these islands are many passages communicating with the great ocean. Port de los Remedios, and Port Bucarelli of the Spaniards, are at a great distance from the continent, and were not the form of taking possession without establishing a settlement too ridiculous to found a title, that of Spain to this part of the continent might be justly contested. For it is demonstrated, that Maurello did not even see that continent from 50° to 57° 20′: and I am absolutely certain, that to the northward of Cross Sound, at *Port des Français*, we were in America itself; because the river of Behring in 59° 9′ is too considerable to be met with in any land that is not of an immense depth. I was desirous to reconnoitre it by our boats, but the current was so rapid at its mouth, they could not stem it. Our ships anchored at its entrance, and the water was white and fresh three or four leagues out at sea. Thus it is probable, that the channel between the islands and the continent does not run further to the northward than 57° 30′. I know, geographers may, with a stroke of their pen, draw a line to the N. E., leaving *Port des Français* and Behring river in America, and extend their channel to the north and to the east, to the utmost boundary of their imagination: but such a proceeding, unsupported by facts, is a mere absurdity, and it is very probable, that on the coast of America, which forms the eastern shore of this channel, the mouth of some other river, perhaps navigable, may be found, as it is hardly possible the declivity of the land should direct them all to the eastward. Behring river would itself form an ex-

ception to that rule. Nor is it probable, there ſhould even be a bar at the mouth of theſe ſuppoſed rivers, becauſe this channel, which is not very wide, is ſheltered by the iſlands oppoſite to it to the weſtward: whereas bars are known to be formed by the reaction of the ſea on the currents of rivers *.

* This chapter, ſo intereſting, to navigation on the great ſcale, ſtill leaves ſomething to be done for the ſatisfaction of ſeamen, and geographers, particularly the partizans of a northern paſſage. Though myſelf of that opinion, I cannot but obſerve, that had La Pérouſe determined to reconnoitre all the bays, and all the great openings, which that immenſe extent of coaſt, interſperſed with iſlands, preſents, he muſt have abandoned all the ulterior objects of his voyage, and have directly diſobeyed his inſtructions.

The honour of completing the deſcription of the habitable parts of the globe, will belong to the 19th century. The important queſtion of a communication of the two ſeas to the northward of America, will then be decided. Let us reſerve a place then in the tablet of fame, for the immortal name of the enterpriſing navigator, who ſhall diſcover that communication.

To accelerate this period, let us remove every diſheartening incertitude, and let us add a few words to what we have already ſaid, in the notes of page 1, 107, and 172.

The ſhip Padre Eterno, commanded by the Portugueſe Capt. David Melguer, departed from Japan in 1660, and ran to the northward, nearly to the 84th degree of lat.; from whence he ſteered between Spitzbergen and Greenland, and paſſing to the weſtward of Scotland and Ireland, returned to Oporto.

The Dutch Capt. Vannout, even pretends to have actually got into the South Sea by Hudſon's Straits.

I would alſo requeſt thoſe, who attend to this queſtion, to read the collection of obſervations on the probability of a N. W. paſſage, inſerted in Capt. J. Meares's Voyages.—*French Editor.*

CHAP.

CHAP. XI.

DESCRIPTION OF MONTEREY BAY—HISTORICAL ACCOUNT OF THE TWO CALIFORNIAS, AND THE MISSIONS THERE—MANNERS AND CUSTOMS OF THE CONVERTED, AND OF THE INDEPENDENT INDIANS—GRAIN, FRUIT, AND LEGUMINOUS PLANTS OF EVERY KIND—QUADRUPEDS, BIRDS, FISH, SHELLS, ETC.—MILITARY CONSTITUTION OF THESE TWO PROVINCES—PARTICULARS RELATIVE TO COMMERCE, ETC.

THE bay of Monterey, formed by New Year's Day Point to the northward, and Cypreſs Point to the ſouthward, is eight leagues acroſs at its entrance in that direction, and nearly ſix in depth to the eaſtward, where the lands are low and ſandy. The ſea rolls in to the very foot of the downs of ſand, with which the coaſt is ſkirted, with a noiſe which we heard at above a league diſtance. The lands to the northward and ſouthward of this bay are elevated, and covered with trees. Ships intending to put in here, muſt keep the ſouth ſhore aboard, and after doubling Fir Point, which ſtretches out to the northward, they will ſee the *Preſidio*, and may drop anchor in ten fathoms water within, and behind this point, which ſhelters them from the ſea breezes. The Spaniſh ſhips that intend making a long ſtay at Monterey, are accuſtomed to approach within one or two cable's length of the ſhore, in ſix fathoms water, where they moor to an anchor which they bury in the ſand of the beach. They are then ſheltered from the ſouth winds, which are ſometimes very ſtrong, though not dangerous, as they blow off ſhore. We got ſoundings all over the bay, and anchored four leagues from the land in 60 fathoms water, over a bottom of ſoft

mud. But the sea is very heavy there, and ships can only remain a few hours at such an anchorage, while waiting for day light, or the clearing of a fog. At the full and change of the moon it is high water at half past one, and the tide rises seven feet; as the bay is very open, its drift is almost imperceptible: I never knew it more than half a knot an hour. I cannot describe the number or familiarity of the whales that surrounded us. They were continually blowing at the distance of half a pistol shot, and occasioned a very disagreeable smell in the air. This was an effect unknown to us, but the inhabitants informed us the water blown by whales always had that quality, which spread to a considerable distance. But it would doubtless have been no new phenomenon to the fishermen of Greenland, or Nantucket.

The coasts of Monterey Bay are covered by almost eternal fogs, which render it difficult of approach, though in other respects there scarcely exists a bay more easily entered; for there is no sunken rock a cable's length from the beach, and if the fog is too thick, there is anchorage every where, till a clear interval expose distinctly to view the Spanish settlement, situated in the angles formed by the southern and eastern shores.

The sea is covered with pelicans, but it appears these birds never go above five or six leagues from land; so that navigators who perceive them during a fog, will be certain they are within that distance. We saw them for the first time in this bay, and I have since learned, that they are very common on all the coast of California. They are called by the Spaniards Alcatras.

A lieutenant colonel, who resides at Monterey, is governor of both the Californias. Though his government is 800 leagues in circumference, his real command extends but to 282 soldiers of cavalry, who garrison five small forts, and furnish detachments of four

four or five men to each of the 25 miſſions, or pariſhes, into which Old and New California are divided. Theſe little guards ſuffice to keep in ſubjection about 50,000 wandering Indians *, ſpread over this vaſt extent of the American continent, and of whom, near 10,000 have embraced Chriſtianity. Theſe Indians are generally ſmall and feeble, and afford no proofs of that love of independence and liberty, which characteriſes the northern nations, to whoſe arts and induſtry they are ſtrangers. Their complexion very nearly reſembles thoſe negroes whoſe hair is not woolly: that of this nation is long, and very ſtrong, and they cut it four or five inches from the roots. Several of them have beards, while others, according to the Miſſionaries, never had any; though it is an undecided point in the country itſelf †. The governor, who had travelled much in the interior, and had lived with the ſavages during 15 years, aſſured us, thoſe who had no beard, had extracted it with bivalve ſhells, uſed as pincers. But the preſident of the miſſions, who had reſided in California an equal length of time, maintained the contrary. Thus travellers are wholly unable to form a deciſion, and as we cannot aſſert what we have not witneſſed, we muſt acknowledge we only ſaw beards on one half of the number of adults: ſome of them having it ſo thick, as to have made a reſpectable figure, even in Turkey, or the environs of Moſcow ‡.

Theſe Indians are very adroit in the uſe of the bow, and killed the ſmalleſt birds in our preſence. It is true,

* They change their reſidence very often, according to the fiſhing and hunting ſeaſon.

† We have given our opinion regarding the beards of the Americans in the preceding chapter. But writing as we proceed on our voyage, and as we adopt no ſyſtem, when we learn a new fact we relate it without heſitation.

‡ The governor had travelled much more than the miſſionary, and his opinion would have carried moſt weight, were I to decide the queſtion.

their patience in getting near their prey is inconceivable. They conceal themſelves while creeping up to it, and rarely pull the bow, till within fifteen paces.

Their induſtry in hunting is ſtill more ſurpriſing. We ſaw one of them crawling on all fours, with a ſtag's head fixed on his own, as if he were brouſing the graſs; and performing his part ſo well, that all our hunters would have fired at him at a diſtance of 30 paces, had they not been appriſed of that manœuvre. Thus they approach a herd of ſtags within reach, and kill them with their arrows.

Loretto is the only preſidio of old California on the eaſtern coaſt of that peninſula. Its garriſon conſiſts of 54 cavalry men, and furniſhes detachments to the 15 following miſſions, of which the functions are performed by the Dominican monks, who have ſucceeded the Jeſuits and Franciſcans. Theſe laſt, however, remain in undiſturbed poſſeſſion of the ten miſſions of New California. The 15 miſſions of the department of Loretto, are San Vicente, S. Domingo, El Roſario, S. Fernandez, S. Franceſco de Borgia, S. Gertrude, S. Ignacio, La Guadalupe, Santa Roſalia, La Conception, S. Joſef, S. Franceſco Xavier, Loretto, S. Joſef de Cabo Lucar, and Todos los Santos. About 400 Indian converts, collected round theſe 15 pariſhes, are the only fruit of the long apoſtleſhip of the various religious orders, who have ſucceſſively undertaken this painful duty. In the hiſtory of California by father Venegas, we may read an account of the eſtabliſhment of the fortreſs of Loretto, and the various miſſions it protects, whereby, comparing their paſt condition with that of the preſent year, it is evident their progreſs is very ſlow. As yet there is only one Spaniſh village. It is true, the climate is unhealthy, and the province of Sonora, which forms the boundary of the Mar-Vermejo, or Red-Sea, to the eaſtward, and California to the weſtward, is much

much more attractive to the Spaniards, who find there a fertile ſoil and abundant mines; objects far more important in their eyes, than the pearl fiſhery of the peninſula, which requires a conſiderable number of ſlaves, who can dive, and theſe often very difficult to procure. Yet North California, notwithſtanding its great diſtance from Mexico, appears to combine infinitely greater advantages. Its firſt ſettlement, which is San Diego, commenced only on the 26th July 1769, and is the preſidio moſt to the ſouthward, as that of Franceſco is the moſt northerly. This laſt was conſtituted on the 9th October 1776, that of Santa Barbara's Channel in September 1786, and laſtly, Monterey, now the capital, and ſeat of government of both Californias, on the 3d of June 1770. The roadſtead of this preſidio, was diſcovered in 1602, by Sebaſtian Vizcayno, commodore of a ſmall ſquadron equipped at Acapulco, by order of the Viſcount of Monterey, who was Viceroy of Mexico. Since that epocha the galleons, on their return from Manilla, have ſometimes put into this bay, to procure refreſhment after their long runs; but it was not till the year 1770, that the Franciſcans eſtabliſhed their firſt miſſion there. They have now ten, comprehending 5143 converted Indians. The following table will ſhow their names, dates, number of baptized Indians, and the preſidios on which they depend. I will here obſerve, that with the Spaniards, *Preſidio* is a general name for all forts, whether in Africa or America, placed in the middle of a country of infidels, and implying, that there are no other inhabitants, than the garriſon which reſides within the citadel.

Pariſhes.	Preſidios on which they depend.	Date of their foundation.	Number of Indians converted.
San Carlos	Monterey	3d June 1770	711
San Antonio	idem	14th July 1771	850
San Luis	idem	1ſt Sept. 1772	492
Santa Clara	San Franceſco	18th Jan. 1777	475
San Franceſco	idem	9th Oct. 1776	250
San Buena Ventura	Santa Barbara	3d May 1782	120
Santa Barbara	idem	3d Sept. 1786	
San Gabriel	idem	8th Sept. 1771	843
San Juan-Capiſtran	San Diego.	1ſt Nov. 1776	544
San Diego	idem	26th July 1769	858
			5143

The piety of the Spaniards has, at a heavy expence, kept up theſe miſſions and preſidios to the preſent time, from no other motive, than to convert and civilize the Indians of theſe countries; a ſyſtem far more praiſe-worthy than that of avaricious individuals, who ſeem inveſted with national authority, merely to commit with impunity the cruelleſt atrocities. The reader will ſoon perceive, that a new branch of commerce may procure to Spain more ſolid advantages, than the richeſt mines of Mexico; and that the ſalubrity of the air, the fertility of the ſoil, the abundance of furs, for which they have a certain market in China, give this part of America the moſt important advantages over Old California, whoſe unwholeſomeneſs, and ſterility, cannot be compenſated by a few pearls, collected from the bottom of the ſea.

Before the Spaniards ſettled here, the Indians of California only cultivated a little maize, and almoſt entirely ſubſiſted on fiſhing and hunting. No country abounds more in all ſorts of fiſh and game. Hares, rabbits and ſtags are very common; otters, and ſea-wolves as abundant as to the northward; and they kill in winter a very large number of bears, foxes, wolves, and

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PROMEROPS of NORTH CALIFORNIA.

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and wild cats. The coppices and plains are full of little grey, creſted partridges, which, like thoſe of Europe, flock together but in covies of three or 400. They are fat, and very well flavored. The trees are the habitation of the moſt charming birds, and our ornithologiſts ſtuffed many varieties, of the ſparrows, blue jays, tom-tits, ſpotted magpies, and *troupiales*. Among the birds of prey were the white-headed eagle, the large and ſmall falcon, goſs-hawk, ſparrow-hawk, blank vulture, great horn-owl, and the raven. The water fowl found on pools, and on the ſea ſide, were the mallard, the grey and white yellow-creſted pelican, gocklath of various kinds, cormorants, curlews, ring-necked plover, ſmall gulls, and herons: and we killed and ſtuffed a promerops, which moſt ornithologiſts have thought to belong to the old hemiſphere.

The fertility of the ſoil exceeds conception. All ſorts of leguminous plants are in great perfection, and we enriched the gardens of the governor and miſſions, with various ſeeds we brought from Paris. They were perfectly well preſerved, and will increaſe the ſtock of their enjoyments.

The harveſt of maize, barley, wheat, and peas, can only be compared to thoſe of Chili; a fertility, of which the European huſbandman can form no adequate idea. Its medium produce of corn is from 70 to 80 fold, and the extremes 60 and 100. Fruit trees are as yet very ſcarce, but the climate is perfectly adapted to them, being nearly that of our ſouthernmoſt provinces in France. At leaſt the cold is never more ſevere, though the heats of ſummer are much more moderate, in conſequence of the perpetual miſts, which fecundate the earth with conſtant moiſture.

The foreſts contain the pine-apple fir, cypreſs, ever-green oak, and weſtern plane-tree, all thinly ſown. A green-ſward, very pleaſant for walking, covers

covers the earth within them, and they have openings of many leagues, forming vaſt plains amid the ſurrounding foreſts, and abounding in every ſort of game. The ſoil, though very fertile, is ſandy and light, owing, I imagine, that excellence to the humidity of the air, as it is very ill watered. The neareſt ſtream to the preſidio, is at a diſtance of two leagues: it is a rivulet, which runs near the miſſion of San Carlos, and called by the ancient navigators Rio de Carmel. This diſtance from our ſhips was too great for us to water there: we got it from the ponds behind the fort, though the quality was indifferent, hardly diſſolving ſoap. The Rio de Carmel, which furniſhes a ſalubrious and agreeable beverage to the miſſionaries and their converts, might with little labour be made to water their garden.

It is with the livelieſt pleaſure, that I deſcribe the wiſe and pious conduct of theſe monks, who ſo fully correſpond with the object of their inſtitution; though I ſhall not conceal what I deem reprehenſible in their internal adminiſtration. But I declare, that good and humane in their individual capacity, they temper the auſterity of the rules laid down by the ſuperiors of their order, with the mildneſs and benevolence of their private character. I confeſs, that more attached to the rights of man than theology, I ſhould have wiſhed them to combine with the principles of chriſtianity, a legiſlation calculated to make citizens of a race of men, whoſe condition ſcarcely differs from that of the negroes of our colonies, in thoſe plantations which are conducted with moſt mildneſs and humanity.

I am perfectly aware of the extreme difficulty of this new plan. I know theſe men poſſeſs few ideas, ſtill leſs ſteadineſs, and, if their conductors ceaſe to conſider them as children, run away from thoſe who have had the labour of inſtructing them. I know too, that reaſoning is almoſt loſt upon them, that an appeal

appeal to their ſenſes is neceſſary, and that corporal puniſhments, with a double proportion of rewards, have hitherto been the only means adopted by their governors. But is it impoſſible for men influenced by ardent zeal, and poſſeſſed of extreme patience, to demonſtrate to a ſmall number of families, the advantages of a ſociety founded on the rights of nations, to eſtabliſh among them the inſtitution of property, ſo engaging to the reſt of mankind, and by this order of things, to induce every one to cultivate his field with emulation, or devote himſelf to ſome other ſpecies of induſtry.

I allow the progreſs of this new mode of civilization would be very ſlow, the neceſſary labour of it very painful and tedious, and the ſcenes of action at very remote diſtances; ſo that the applauſes due to the character, who ſhould devote his life to deſerve them, would never reach his ears. Nor am I afraid to confeſs, that mere humanity is an inadequate motive to undertake the office. The enthuſiaſm to which Religion gives birth, and the rewards ſhe promiſes, can alone compenſate the ſacrifices, the tediouſneſs, the fatigue, and the riſks of this mode of life. I have only to wiſh the auſtere, though charitable and pious individuals, I met with on theſe miſſions, poſſeſſed a little more of the true ſpirit of philoſophy.

I have already declared with freedom my opinion of the monks of Chili, whoſe irregularity appeared to me a general ſcandal * to their order. I ſhall with equal truth pourtray thoſe truly apoſtolic individuals, who have quitted the lazy life of the cloiſter, to encounter every kind of fatigue, of care, and of ſolicitude. I ſhall as uſual give the narrative of our own adventures, by relating their hiſtory, and placing be-

* There are, however, among the monks of Chili, individuals of great worth, though, in general, they enjoy a licence inconſiſtent with the way of life they have embraced.

fore

fore the reader all we ſaw, or learned, during our ſhort ſtay at Monterey.

We anchored on the 14th of September in the evening, two leagues off ſhore, within ſight of the preſidio, and the two ſhips that lay in the harbour. They had fired a gun every quarter of an hour, to appriſe us of the anchoring place, which the fog might conceal from us. At 10 o'clock at night, the Captain of the corvette *la Favorecida* came on board in his long-boat, and offered to pilot our ſhip into the harbour. The corvette *la Princeſa* alſo ſent her long-boat with a pilot on board the Aſtrolabe. We then learned that theſe two ſhips were Spaniſh, and commanded by Don Eſtevan Martinez, lieutenant of marine of the department of San Blas, in the province of Guadalaxara. The government keeps up a ſmall navy in that port, under the orders of the Viceroy of Mexico, conſiſting of four corvettes of 12 guns, and a ſchooner, whoſe particular deſtination is the victualling the preſidios of North California. It was theſe ſame ſhips, that performed the laſt voyage of the Spaniards on the N. W. coaſt of America. They are alſo ſometimes ſent as packet-boats to Manilla, to carry with promptitude the diſpatches of the court.

We had got under way at ten in the morning, and anchored in the road at noon, where we were ſaluted by ſeven guns, which we returned. I then ſent an officer to the governor with the letter of the Spaniſh miniſter, delivered to me before my departure from France. It was unſealed, and addreſſed to the Viceroy of Mexico, whoſe juriſdiction extends as far as Monterey, though ſituated 1100 leagues (by land) from his capital.

Senor Fagas, commandant of the fort of the two Californias, had already received orders to give us the ſame reception, as to the ſhips of his nation; and he executed them with an air of graciouſneſs, and warmth of intereſt, that deſerve our ſincereſt gratitude.

tude. He did not confine himself to kind expreſſions, but ſent on board oxen, milk, and vegetables in great abundance. The deſire to ſerve us, threatened even to diſturb the good underſtanding that reigned between the commandant of the two corvettes and the commandant of the fort, each being deſirous to engroſs the right of excluſively ſupplying our wants; and to compenſate theſe attentions, and balance the account, we were obliged to inſiſt on paying for them, before they would accept our money. The vegetables, the milk, the fowls, all the labour of the garriſon, in aſſiſting us to get wood and water, was furniſhed gratis, and the oxen, ſheep, and grain were charged at ſo moderate a price, that it was evident they only preſented the account becauſe we had been urgent in demanding it.

Senor Fagas added to generous manners the greateſt politeneſs of behaviour; his houſe was ours, and every one under his command was at our diſpoſal.

The monks of the miſſion of San Carlos, ſituated two leagues from Monterey, ſoon arrived at the preſidio, and with the ſame politeneſs we had experienced from the officers of the fort and ſhips, invited us to dine with them, promiſing to make us acquainted with the minutiæ of their inſtitution and miſſions, the manner of life of the Indians, their arts, their newly adopted manners, and in general, every thing that could excite the curioſity of travellers. We eagerly embraced theſe offers, and ſhould not have failed to have made an application to that effect, had they not anticipated our ſolicitations. We agreed to go two days after. Senor Fagas was deſirous to accompany us, and undertook to procure us horſes. After croſſing a ſmall plain, covered with herds of cattle, but only furniſhed with a few trees, that ſerve as a ſhelter to thoſe animals from the rain, or ſultry heats, we aſcended ſome hills, where we heard ſeveral bells announcing our arrival, of which the monks had

had been appriſed, by a horſeman previouſly ſent forward by the governor.

They received us like lords of the manor making their firſt entry on their eſtates. The preſident of the miſſions, in his ceremonial habiliments, and with holy water in his hand, received us at the door of the church, which was illuminated as on the grandeſt feſtivals; and conducting us to the ſteps of the high altar, began to chaunt a *Te Deum* for the ſucceſs of our voyage.

Before we entered the church, we had croſſed a ſquare, where the Indians of both ſexes formed a line; but their countenances ſhewed no ſurpriſe at our arrival, and even left it doubtful whether we ſhould become the ſubject of their converſation during the remainder of the day. The pariſh church is very neat, though covered with thatch. It is dedicated to St. Charles, and decorated with tolerable good paintings, copied from thoſe of Italy. Among others, is a picture of hell, where the artiſt ſeems to have borrowed the imagination of Callot. But as it is indiſpenſably neceſſary to ſtrike the ſenſes of theſe new converts in a lively manner, I am convinced ſuch a repreſentation never was more uſeful in any country, and that it would be impoſſible for the Proteſtant religion, which proſcribes images, and almoſt all the ceremonies of the Gallican church, to make any progreſs among this nation. I doubt whether the picture of Paradiſe oppoſite, produces on them ſo good an effect. The quietiſm it pourtrays, and the ſoothing ſatisfaction of the elect, who ſurround the throne of the Moſt High, are ideas too ſublime for the minds of uncultivated ſavages. But it was neceſſary to place the rewards, as well as puniſhments before them, while it was an indiſpenſable duty, not to admit of any de iation from the kind of pleaſures held out to man by the Catholic religion.

On coming out of the church, we paſſed the ſame ranks

ranks of Indians, who had not quitted their poſt during the *Te Deum*. The children alone had moved, forming groups near the houſe of the miſſionaries, which, with their ſeveral magazines, are oppoſite to the church. On the right is the Indian village, conſiſting of about 50 huts, inhabited by 740 perſons of both ſexes, including children, who altogether compoſe the miſſion of San Carlos, or Monterey.

Theſe huts are the moſt miſerable that exiſt among any nation. Their form is circular, and ſix feet diameter by four high. Some ſtakes about the ſize of the arm being fixed in the ground, and brought together in an arch at top, compoſe their frame, and eight or ten truſſes of ſtraw, badly arranged upon theſe ſtakes, defend the inhabitants more or leſs from the rain, and wind. More than half this hut remains open in fine weather, and their only precaution is to keep two or three ſpare truſſes of ſtraw near each of their houſes.

This agreſtic architecture, which is univerſal throughout the two Californias, the exhortations of the Miſſionaries have never ſucceeded in changing. The Indians reply that they love the open air, and that it is convenient to ſet fire to their houſes, when they are too much annoyed by fleas, and then rebuild them in an hour or two. The independent Indians, who ſo frequently change their abode, have, like every nation of hunters, additional motives to this preference.

The colour of theſe Indians, which is that of negroes, the houſe of the monks, their magazines, which are built of brick, and plaiſtered, the threſhing-floor on which they tread out the corn, the cattle, the horſes, in ſhort, every thing we obſerved, preſented the appearance of a plantation in St. Domingo, or any other colony. The men and women are alſo aſſembled by the ſound of a bell, and a monk leads them to work, to church, and to all their employments. We declare with pain, that the reſemblance

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is so exact, that we saw both men and women loaded with irons, while others had a log * of wood on their legs; and even the noise of the lash might have assailed our ears, as that mode of punishment is equally admitted, though employed with but little severity.

The answers of the monks to our various questions, made us perfectly acquainted with the regulations of this religious community, for such the administration established here must be called. They are the temporal, as well as spiritual superiors, and all the produce of the earth is confided to their management. The day is divided into seven hours of work, and two of prayer, but four or five on Sundays and feast days; which are wholly devoted to rest, and religious worship. Corporal punishments are inflicted on the Indians of both sexes, who neglect their pious exercises, and many faults, which in Europe are wholly left to divine justice, are here punished with irons, or the log. In short, to complete the parallel with the religious communities, from the moment a neophyte is baptized, he seems to have taken an eternal vow. If he runs away, and returns to his relations among the independent villages, he is summoned three times, and should he still refuse to come back, they apply to the authority of the governor, who sends a party of soldiers to tear him from the bosom of his family †, and deliver him to the missions; where he is condemned to a certain number of lashes. Yet these people are so destitute of courage, that they never oppose any resistance to the three or four soldiers, who so glaringly violate the rights of nations in their per-

* The log is a solid block of wood sawed throughout its length, with a hole large enough for a common sized leg. One end is connected by a hinge; the other, being opened to put in the leg of the prisoner, it is then shut, and fastened with a padlock; thus obliging him to lie down, or remain in a very uneasy posture.

† As these people are at war with their neighbours, they can never go to a distance of above 20 or 30 leagues.

sons.

ſons. Thus is this cuſtom, againſt which reaſon exclaims ſo loudly, continued, merely becauſe a number of theologians have choſen to decide, that baptiſm ſhall not be adminiſtered to men of ſo much levity, unleſs the government become in ſome meaſure their ſponſors, and engage for their perſeverance in Chriſtianity.

The predeceſſor of Senor Fagas, Don Felipe de Neve, commandant of the inland provinces of Mexico, who died four years ſince, was a man of great humanity, and a kind of Chriſtian philoſopher. That worthy man proteſted againſt this cuſtom, thinking the progreſs of the Chriſtian faith would be more rapid, and the prayers of the Indians more agreeable to the Supreme Being, if they were voluntary. He wiſhed for a leſs monaſtic conſtitution, more civil liberty for the Indians, and leſs deſpotiſm in the executive power of the preſidios, the adminiſtration of which, might ſometimes be placed in barbarous or avaricious hands. He thought it might even be neceſſary to moderate their authority, by erecting a magiſtracy, which ſhould be as it were the tribunal of the Indians, and might have ſufficient authority to protect them from oppreſſion. Though this juſt man had borne arms in the defence of his country from his infancy, yet he was free from the prejudices of his profeſſion, knowing that a military government is ſubject to great inconveniences, when it is not tempered by an intermediate authority. He ought, however, to have perceived the difficulty of maintaining this balance of three powers, at ſo great a diſtance from the Governor General of Mexico, ſince the Miſſionaries, though ſo pious, and ſo reſpectable, are already at open war with the governor, who appeared to me to be a meritorious officer.

We were deſirous of being preſent at the diſtributions made after each meal; and, as every day is alike

with theſe monaſtic kind of men, by delineating the hiſtory of a day, the reader will know that of the year.

The Indians, like the miſſionaries, riſe with the ſun, and then go to prayers, and to maſs, which laſt an hour. During this time, three great cauldrons of barley meal are boiled in the middle of the ſquare, the grain having been roaſted before it is ground; this meſs, which the Indians call *atole*, and which they are very fond of, is neither ſeaſoned with butter nor ſalt, and would be to us very inſipid food.

Each family ſends for the allowance of all the inhabitants of their cottage, which they receive in a veſſel of bark. There is no confuſion or diſorder in the diſtribution, and when the cauldrons are empty, what cakes to the bottom is given to the children who ſay their catechiſm beſt.

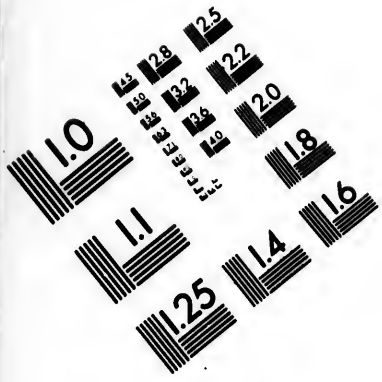
This repaſt continues three quarters of an hour, after which they all go to work; ſome to plough with oxen, others to dig the garden, each according to the different labours requiſite in the colony, and always under the ſuperintendance of one or two monks.

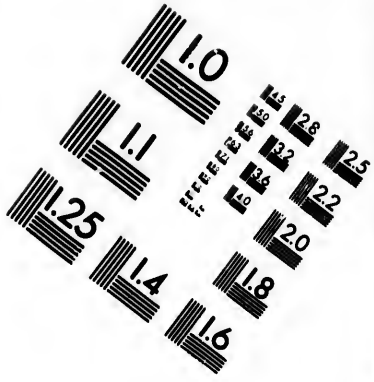
The women have little other employment than the conduct of houſehold affairs, that of their children, and the roaſting and grinding their grain. This operation is very long and tedious, becauſe they have no other method than cruſhing it on a ſtone with a cylinder. M. de Langle, obſerving this operation, preſented his mill to the miſſionaries, than which, we could ſcarcely have rendered them a greater ſervice; for now four women can do the work of 100, and even have time to ſpin the wool from their flocks, and manufacture ſome coarſe ſtuffs. Hitherto the monks, more occupied with their celeſtial than temporal concerns, have neglected to introduce the moſt common arts. They are even ſo auſtere with regard to themſelves, as not to have one chamber with a fire-place, though the winter is ſometimes ſevere; nor

nor did the ſtricteſt anchorites ever lead a more edifying life *.

At noon the bells ring for dinner, when the Indians quit their work, and ſend for their meſſes to the ſame cauldrons as at breakfaſt time. This ſecond broth, however, is thicker than the firſt, for beſides the corn and maize, it contains peas and beans. The Indians call it *pouſſole*. They return to work from two o'clock, till four or five, after which they go to evening prayers, which laſt near an hour, and are followed by another meal of *atole* ſimilar to their breakfaſt. Thus theſe diſtributions ſuffice for the ſubſiſtence of the majority of the Indians, and this very economical ſoup, might perhaps be advantageouſly adopted in Europe in years of ſcarcity, with the addition of ſome kind of ſeaſoning. But all the art of cookery practiſed here, conſiſts in roaſting the grain before it is reduced into flour. As the Indians have no earthen, or metal veſſels for this operation, they perform it in baſkets of bark over ſmall lighted coals, turning them with ſo much adroitneſs and rapidity, as to make the grain ſwell and burſt, without burning the baſkets, though compoſed of very combuſtible materials. We may even venture to affirm, that the beſt roaſted coffee does not approach the equality of roaſting, produced by the Indians. It is diſtributed to them every morning for this purpoſe, and the ſmalleſt infidelity in their return, is puniſhed by the laſh, to which, however, they very rarely expoſe themſelves. Theſe puniſhments are ordered by Indian magiſtrates called *Caciques*, of whom each miſſion has three, elected by the people from all thoſe not diſqualified by the miſſionaries. But to give a juſt idea of this magiſtracy, we ſhall obſerve, that

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





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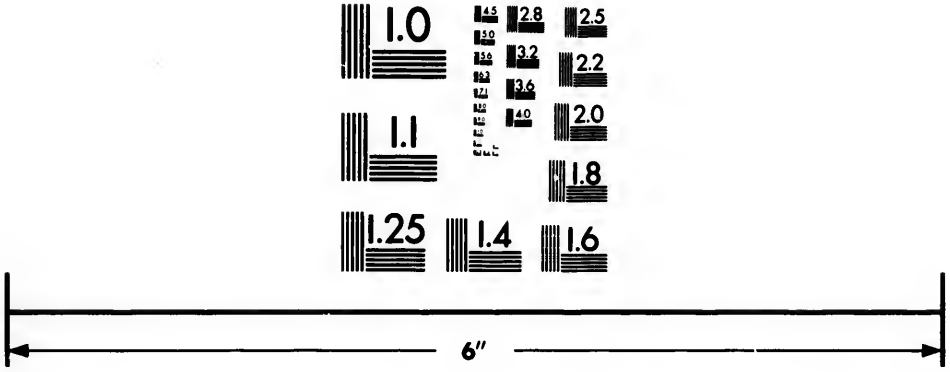

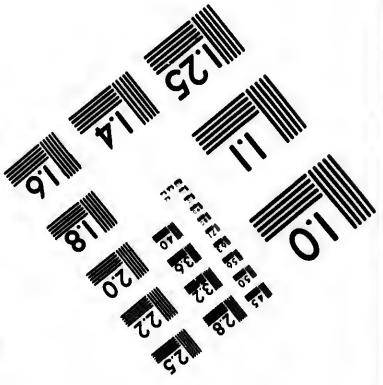

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their Caciques, like ſtewards of plantations, are mere paſſive beings, and blind executors of the will of their ſuperiors: their principal functions being thoſe of beadles, and maintaining good order, and an air of ſerioufneſs in the church. The women are never flogged in the public ſquare, but in a ſecret place, and at a diſtance, in order, perhaps, to prevent their cries exciting too lively a compaſſion, and thereby ſtimulating the men to revolt: whereas the men are expoſed before all their fellow citizens, that their puniſhment may ſerve as an example. In general, they aſk forgiveneſs, upon which the executioner diminiſhes the force of his ſtrokes, but the number is always irrevocably fixed.

Their rewards conſiſt in ſmall individual diſtributions of grain; of which they make ſmall cakes, baked under the brazier; and on feaſt days their meſs is of beef, which many eat raw, eſpecially the fat, which they eſteem equally delicious with the fineſt butter, or the moſt excellent cheeſe. They ſkin all animals with the greateſt addreſs, and when they are fat, they croak with pleaſure like a crow, devouring at the ſame time the parts they are moſt fond of with their eyes.

They are often ſuffered to hunt and fiſh for their own benefit, and at their return, preſent the miſſionaries with ſome fiſh or game, proportioning the quantity to their preciſe wants, but encreaſing it if they know their ſuperiors to have any additional gueſts. The women keep a few fowls round their huts, and give the eggs to their children. Theſe fowls are the property of the Indians, as well as their clothes and other utenſils, both domeſtic and for the chace. There is no example of their robbing one another, though they have no other door than a truſs of ſtraw laid acroſs the entrance when all the family are abſent.

Theſe manners will appear to ſome readers, to be-

long

long to patriarchal ages, who may not conſider, that in theſe huts they have no objects capable of tempting the cupidity of their neighbours. For their ſubſiſtence being ſecure, they can have no other object of deſire, but to give birth to beings, deſtined to be equally ſtupid with themſelves.

The men have ſacrificed more to Chriſtianity than the women; for to them polygamy was allowed, and it was even the cuſtom to marry all the ſiſters of a family. The women, therefore, have gained by it the excluſive enjoyment of their huſband. But I confeſs, that, notwithſtanding the unanimous account given by the miſſionaries, of this pretended polygamy, I never could conceive it poſſible among a nation of ſavages. For the number of men and women being nearly equal, many of them muſt live in involuntary celibacy, unleſs conjugal fidelity were leſs ſtrictly obſerved than in the miſſions, where the monks have made themſelves the guardians of the womens' virtue. An hour after ſupper, they ſhut up all thoſe whoſe huſbands are abſent, as well as all girls above nine years old, and place them under the care of matrons during the day. Even theſe precautions are inſufficient; for we ſaw men wearing the log, and women in irons, for having eſcaped the vigilance of theſe female arguſes, whoſe eyes are inadequate to watch them.

The converted Indians have preſerved all the ancient cuſtoms not forbid by their new religion; the ſame huts, the ſame games, the ſame dreſſes. The richeſt wear a cloak of otter-ſkin, which covers their loins, and reaches below their middle. The leaſt induſtrious only wear a piece of cloth furniſhed by the miſſion to cover their nakedneſs, and a little cloak of rabbit-ſkin tied with a pack-thread under the chin, which covers their ſhoulders, and reaches to their loins, he reſt of the body being naked as well as the head; ſome, however, wear a ſtraw hat extremely well matted.

The women's dreſs conſiſts of a cloak of ſtag's-ſkin, badly tanned. Thoſe of the miſſions generally convert them into a little jacket with ſleeves, which with a ſmall apron of ruſhes, and a petticoat of ſtag's-ſkin that covers their loins, and reaches half down the leg, forms their whole attire. Young girls under nine years old have only a girdle, and the boys are totally naked.

The hair of both men and women is cut four or five inches from the roots. The Indians of the *Rancherias* * having no iron utenſils, peform this operation with fire-brands, and paint their bodies red, changing it to black when in mourning. The miſſionaries have proſcribed the former, but have been obliged to tolerate the black, theſe people being ſo ſtrongly attached to their friends, as to ſhed tears when reminded even of thoſe who have long been dead, and feeling offended, if their names are inadvertently mentioned in their preſence. But here, family connections have leſs force than thoſe of friendſhip; and children ſcarcely know their own father, deſerting his hut as ſoon as they are able to provide for themſelves. They retain, however, a more durable attachment to their mothers, who bring them up with the greateſt tenderneſs, and only beat them when they ſhew cowardice in their little battles with children of their own age.

The old men of the Rancherias, who are no longer able to hunt, live at the joint expence of the whole village, and are treated with general reſpect. Though the independent ſavages are very frequently at war, their fear of the Spaniards, prevents their committing any outrages on the miſſions, which is, perhaps, not the leaſt of the cauſes of the augmentation of the Chriſtian villages. Their arms are the bow and arrow, pointed with a flint very ſkilfully worked. Theſe bows being made of wood, and ſtrung with the nerve

* Villages of the Independent Indians.

of

of an ox, are very far ſuperior to thoſe of the inhabitants of *Port des Français*.

We were aſſured, theſe Indians neither eat their priſoners, nor their enemies killed in war, although, when they have conquered and put to death ſome chiefs and very brave men in the field of battle, they eat ſome morſels of their bodies; not ſo much to demonſtrate their hatred and vengeance, as to do homage to their valour, and from a belief that ſuch food would increaſe their courage. Like the Canadians, they take off the ſcalp of the conquered, and tear out their eyes; which they have the art of preſerving from corruption, keeping them as the moſt precious trophies of victory. They are accuſtomed to burn their dead, and depoſit their aſhes in a moraï.

Two games employ all their leiſure time. One is called *takerſia*, and conſiſts in throwing, or rolling a ſmall circle three inches in diameter, on an area ten toiſes ſquare, cleared from graſs, and incloſed with faſcines. Each party has a ſtick five feet long, of the ſize of an ordinary cane, on which they endeavour to catch the ring while in motion. If they ſucced they gain two points, but if they only catch it at the end of its motion, they count one; and three points are the game. This play becomes a violent exerciſe, as the circle or the ſtick are in conſtant action.

The other game, called *touſſi*, is leſs fatiguing, and is played by four hands, two on a ſide. Each party in turn, hides a piece of wood in one hand, while his partner endeavours by a thouſand geſtures, to engage the attention of the adverſaries. It has a ſingular effect to a ſpectator, to obſerve them ſquatting oppoſite each other in perfect ſilence, watching each other's countenance, and the minuteſt circumſtance that may aſſiſt them in gueſſing which hand conceals the piece of wood. They gain or loſe a point according to their gueſs, and thoſe who win have the next turn to hide. Five points make the game, and the ſtake uſually

uſually conſiſts of ſome beads; or, among the independent Indians, the favours of their wives. Theſe laſt have no knowledge of a God or a future ſtate, except ſome of the ſouthern nations, who had a confuſed idea on the ſubject before the arrival of the miſſionaries. They placed their paradiſe in the middle of the ſea, where the good enjoyed a coolneſs never to be felt amongſt their burning ſands; while they imagined a hell ſituated in the hollows of the mountains.

The miſſionaries convinced, either by their prejudices or their experience, that the reaſon of theſe men is never matured, deem this a ſufficient motive for treating them as children, and only admit a very ſmall number to the communion. Theſe individuals are the men of genius of their village, who, like Newton or Deſcartes, might have enlightened their countrymen and their age, by teaching them that two and two make four; a calculation above the powers of a conſiderable number. The regulation of the miſſions is not likely to emancipate them from the reign of ignorance, where every thing is merely directed to obtaining the rewards of a future life, and the moſt common arts, even that of a village ſurgeon of France, wholly unexplored. Children frequently periſh in conſequence of hernias, which the ſmalleſt degree of ſkill might cure; and our ſurgeons were happy in relieving a few, and teaching them the uſe of bandages in that diſorder.

It muſt be acknowledged, that if the Jeſuits were not more pious or more charitable than the preſent miſſionaries, they were at leaſt more ſkilful. The immenſe edifice they erected in Paraguay, muſt excite the greateſt admiration, though mankind will ever have to reproach them, whether from their ambition or their prejudices, with that ſyſtem of community ſo inimical to the progreſs of civilization, and which is too ſervilely imitated in all the miſſions of California.

California. This government is a true theocracy with regard to the Indians, who believe their ſuperiors to hold an immediate and continual intercourſe with God, bringing him down each day upon the altar. Under the protection of this opinion, the fathers live in the midſt of the villages in perfect ſecurity, nor is their door ſhut during the night, though the hiſtory of their miſſion already furniſhes an inſtance of a prieſt being maſſacred. This aſſaſſination, however, was the conſequence of a commotion cauſed by an act of imprudence, for murder is very uncommon even among the independent tribes, though only puniſhed by general contempt. But if an individual falls under the united attack of ſeveral aſſailants, he is ſuppoſed to have deſerved his fate, as he had drawn upon him ſo many enemies.

North California, of which the moſt northern ſettlement is San Franceſco, in 37° 58′ N. lat. has no other bounds, according to the opinion of the Governor of Monterey, than thoſe of America itſelf; and our ſhips, penetrating as far as Mount St. Elias, have not found its limits. In addition to the motives of piety, that determined Spain to ſacrifice conſiderable ſums in the maintenance of her preſidios and miſſions, powerful reaſons of ſtate direct the attention of the government to this important part of America, where otter ſkins are as common as in the Aleutian iſlands, and other parts frequented by the Ruſſians.

We found at Monterey, a Spaniſh commiſſary, named Don Vicente Vaſſadre y Vega, who had brought the Governor orders to collect all the otter ſkins of his four preſidios and of the ten miſſions, of which the Governor reſerves the excluſive trade. Senor Fagas aſſured me he could furniſh 20,000 every year; and as he knew the country, he ſaid, that if China could take off 30,000 ſkins, two or three additional ſettlements to the northward of San Franceſco would ſoon procure them for the national trade.

It

It is truly aſtoniſhing that the Spaniards, having ſuch frequent and eaſy communication with China through Manilla, ſhould ſtill be ignorant of the value of theſe important furs.

They owe to Captain Cook and to the publication of his work this important information, which will confer on them the greateſt advantages. Thus has this great man travelled for the benefit of the whole world, while his nation enjoys nothing excluſively, but the glory of giving birth to the enterprize, and of obſerving its progreſs.

The otter is an amphibious animal, as common on the weſtern coaſt of America, from the 28th to the 60th degree, as ſea-wolves on the coaſt of Labrador and Hudſon's-Bay. The Indians, not being ſo good ſeamen as the Eſquimaux, and their canoes at Monterey being only made of reeds*, take them on ſhore with ſnares, or knock them down with ſticks when at a diſtance from the land. For this purpoſe they conceal themſelves behind the rocks, for at the moſt trifling noiſe theſe animals take alarm, and plunge into the ſea. Till the preſent year an otter-ſkin bore no higher value than two hare-ſkins, and the Spaniards had no idea they could ever be much in requeſt. They had never ſent any to Europe, and Mexico was too hot a country to ſuppoſe they could be diſpoſed of there.

I am of opinion a great revolution will take place in a few years, in the commerce of the Ruſſians to Kiatcha, in conſequence of the difficulty of ſupporting this competition. The compariſon I have made of the otter-ſkins of Monterey with thoſe of *Port des Français* induces me to think the ſkins of the South are rather inferior. But the difference is ſo inconſiderable, that I am not abſolutely certain

* Thoſe in the channel of Santa Barbara and of San Diego have canoes built of wood, nearly ſimilar to thoſe of Mowee, but without out-riggers.

of

of the fact, and I doubt much whether this inferiority can occaſion a difference of 10 *per cent.* on the ſale. It is almoſt certain that the new Company of the Manillas will endeavour to become maſters of this branch of commerce, and this will be a moſt fortunate event for the Ruſſians, as it is the nature of excluſive privileges to deſtroy, or at leaſt to paraliſe every ſpecies of commerce and induſtry; while it is the characteriſtic of a free trade to communicate to both all the activity of which they are ſuſceptible.

California, notwithſtanding its fertility, cannot be ſaid to have a ſingle inhabitant. A few ſoldiers, married to Indian women, who live within the forts, or are ſpread as it were in patroles among the various miſſions, conſtitute as yet the whole of the Spaniſh nation in this part of America. Yet it is in no reſpect inferior to Virginia, to which it is oppoſite, were it but leſs diſtant from Europe; its proximity to Aſia might, however, counterbalance that diſadvantage; and I am of opinion, that a good ſyſtem of legiſlation, and, above all, the liberty of commerce, would procure it ſome inhabitants from the Spaniſh territories, which are ſo extenſive, that it will probable be a very long time before the population of any of their colonies will increaſe. The great number of celibatiſts of both ſexes who have devoted themſelves to that condition from an idea of moral perfection, and the conſtant policy of the government in tolerating only one religion, and employing the moſt violent meaſures in its ſupport, will continually oppoſe an additional obſtacle to every advancement.

The adminiſtration of the villages converted to Chriſtianity would be more favourable to population, if property and a certain degree of liberty formed its baſis. However, ſince the eſtabliſhment of the ten different miſſions of North California, the holy fathers have baptized 7701 Indians of both ſexes, and have buried only 2388. But we may remark, that this

ſtatement

ſtatement does not inform us, like that of our towns in Europe, whether the population encreaſes or diminiſhes, becauſe they baptize ſome of the independent Indians every day. It only proves that Chriſtianity encreaſes; and I have already ſaid that the affairs of the future ſtate could not be confided to better hands.

Almoſt all the Franciſcan miſſionaries are Europeans. They have a college at Mexico *, whoſe guardian is, in America, the general of his order. This houſe is not dependent on the province of the Franciſcans at Mexico, but has its ſuperiors in Europe.

The Viceroy is ſole judge of the diſputes and differences of the various miſſions, not under the authority of the Commandant of Monterey, who is only obliged to aſſiſt them with the military power whenever they demand it. But as he has power over all the Indians, and particularly over thoſe of the Rancherias, and is alſo commandant of the detachment of cavalry ſtationed in the miſſions, theſe various relations very frequently diſturb the harmony between the military and religious government, which laſt, however, has ſuch a powerful intereſt in Spain, as to preſerve to them the aſcendancy. Theſe affairs were formerly carried before the governors of the interior provinces; but the new Viceroy, Don Bernardo Galvez, has re-united all the powers in his own perſon.

Each miſſionary receives from Spain 400 piaſtres a year; their number being fixed at two for each pariſh; and if there is a ſupernumerary, he receives no ſalary. Yet money is of very little uſe in a country where they find nothing to buy. Beads are the only money of the Indians, conſequently the College of Mexico do not ſend a piaſtre in ſpecie, but inveſt

* The name given to their Monaſtry.

their

their value in effects, such as candles for the church, chocolate, sugar, oil, wine, and some cloth, which the missionaries cut into small girdles, to furnish a covering for the converted Indians, though deemed by their independent countrymen unnecessary. The Governor's salary is 4000 piastres; that of his deputy, 450; that of the inspecting captain of the 283 cavalry-men distributed over the two Californias, 2000. Each soldier of cavalry has 217, out of which he must subsist himself, and furnish his horse, cloathing, arms, and every thing. The government keep studs of horses and herds of cattle, and sell the former to the soldiers, as well as the meat they consume. The price of a good horse is eight piastres, and that of an ox five. The Governor has the disposal of the horses and of cattle, and making the deduction to each, at the end of the year, from the remainder of his pay, liquidates the balance with great exactness.

As the soldiers * had rendered us an infinity of little services, I asked leave to present them a piece of blue cloth, and sent the mission some coverlets, some sticks, beads, utensils of iron, and, in general, all the little articles they might want, and which we had not distributed to the Indians of *Port des Français*. The President declared to the whole village, that it was a present from their ancient and faithful allies, who professed the same religion as the Spaniards: which so excited their benevolence, that every one of them brought us a truss of hay or straw the next morning, for the oxen and sheep we were to take on board. Our gardener also gave the missionaries some potatoes of Chili perfectly well preserved, which I by no means consider one of our meanest presents, as I am of opinion this root will succeed perfectly in the light and highly vegetative soil of the environs of Monterey.

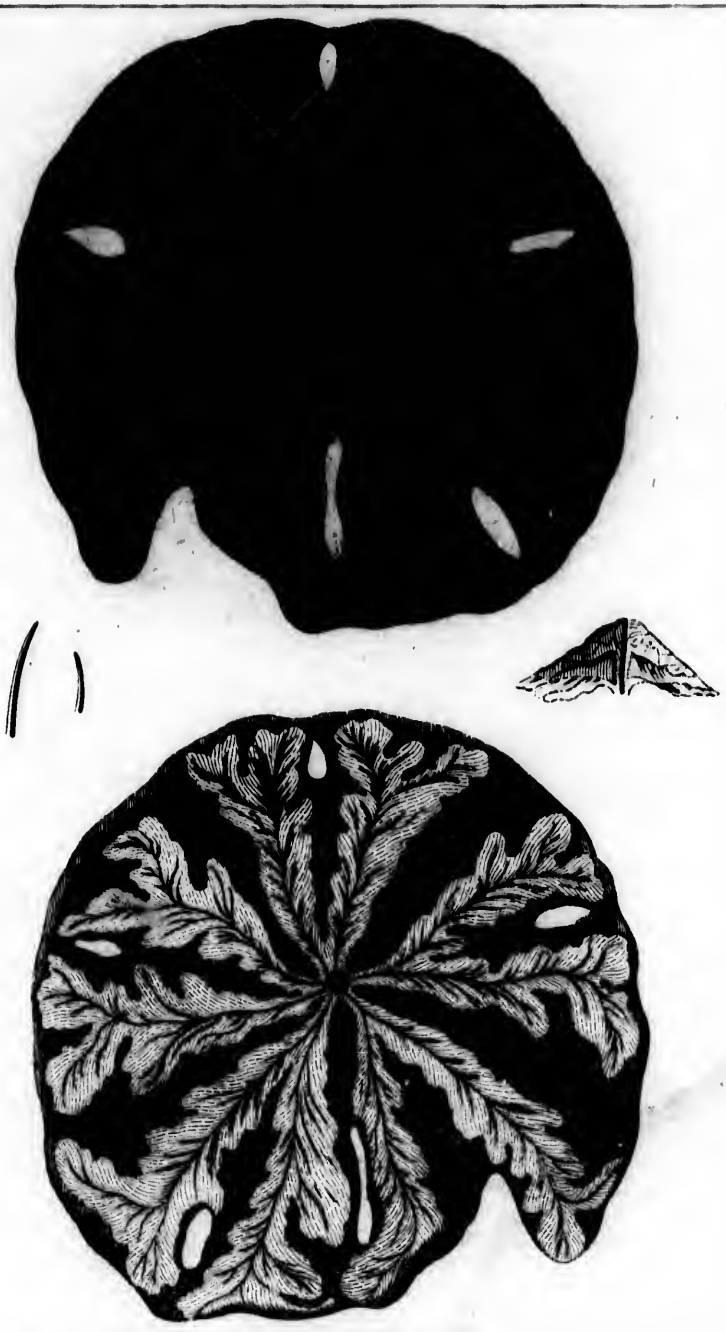
* There are but eighteen in the whole presidio.

From

From the day of our arrival we had been employed in getti[illegible] which laſt we were allowe[illegible] our boats. In the [illegible] a moment fro[illegible] but the ſ[illegible] ſummer [illegible]g ſhed [illegible]n, our [illegible]t and [illegible] ſou- [illegible]od of [illegible]ell or *criſte* [illegible]e Go- [illegible]nity of [illegible] our uſe, a[illegible] [illegible]nce of vege[illegible].

O[illegible] [illegible]ally zealous with our botaniſts, though [illegible] ſucceſsful. On the mountains, in the hollows, and by the ſea-ſide, they only found a light argillaceous ſtone, eaſily decompoſed, and formed of a kind of marl. They alſo met with blocks of granite, in the veins of which were buried cryſtallized ſpars, ſome ſpecies of porphyry, and [illegible] ſlates, but no traces whatever of the metals. The varieties of ſhells were equally few, except ſome very fine *oreilles de mer*, furniſhed with the fineſt oriental mother of pearl, and nine inches long by four broad. All the reſt are not worth the trouble of gathering.* The eaſtern and ſouthern coaſt of Old California are much richer in this branch of natural hiſtory, and furniſh oyſters, whoſe pearls are equal in beauty and ſize to thoſe of Ceylon or the Perſian Gulph. This would alſo be an article of great

* They found ſmall olives, buccinæ, and various ſhells of the periwinkle kind, but not in the leaſt curious.



Great SEA URCHIN of the N. W. coast of America.

ECHINI MARINI or SEA URCHINS of the N. W. coast of America.

great value and certain ſale in China. But it is impoſſible for the Spaniards to cultivate every ſpecies of induſtry their vaſt dominions would encourage:

On the 22d at night every thing was on board, and we took our leave of the Governor and the miſſionaries. We carried away with us as great a ſtore of proviſions as from La Conception: the whole ſtock of poultry of Senor Fagas and the monks was tranſported to our coops, and the latter added ſome corn, beans, and peas, retaining only what was abſolutely neceſſary for themſelves. For all theſe articles they refuſed to accept any payment, and only yielded to our repreſentation, that they were ſtewards, not proprietors of the produce of the miſſions.

On the 23d the wind was contrary, but on the morning of the 24th we ſet ſail with a breeze from the weſtward. Don Eſtevan Martinez had come on board at day-break; and his long-boat and crew were conſtantly at our diſpoſal, and gave us every aſſiſtance. Indeed, I can but feebly expreſs the ſentiments of gratitude we owe him for his attentions, as well as to Don Vicente Vaſſadre y Vega, a young man full of genius and merit, who was on the eve of his departure for China, to conclude a treaty of commerce relative to the ſale of otter-ſkins.

ECHINI MARINI or SEA URCHINS of the N. W. coast of America

CHAP. XII.

ASTRONOMICAL OBSERVATIONS—COMPARISON OF THE RESULTS OBTAINED BY THE DISTANCES OF THE MOON FROM THE SUN, AND BY OUR TIME-KEEPERS, WHICH SERVED AS THE GROUND-WORK OF OUR CHART OF THE AMERICAN COAST—REASONS FOR THINKING OUR LABOURS DESERVE THE CONFIDENCE OF NAVIGATORS—VOCABULARY OF THE LANGUAGE OF THE DIFFERENT TRIBES IN THE VICINITY OF MONTEREY, WITH REMARKS ON THEIR PRONUNCIATION.

WHILE our crews were employed in completing ing our wood and water, M. Dagelet got his quadrant aſhore, in order to determine with the greateſt preciſion the latitude of Monterey. He regretted much, that circumſtances did not admit of my ſtaying long enough to reſume the compariſon of our time-keepers. The robbery of the papers containing our obſervations, by the ſavages at *Port des Français* left him in ſome uncertainty concerning the daily loſs on mean time of the time-keeper No. 19, by which we had determined all the points of the coaſt of America. That aſtronomer even thought he ought to conſider the compariſons made in the *Iſle du Cénotaphe* as null, preferring thoſe of the bay of Talcaguana in Chili, though perhaps too long paſt, ſtill to deſerve full confidence. But it ought not to be forgot, that each day we compared the reſult of the longitude given by the time-keeper, with that deduced from lunar obſervations taken on board each frigate, and that the conſtant and perfect agreement of theſe reſults, cannot leave any doubt, concerning the accuracy of thoſe to which we have adhered.

As thoſe who apply themſelves to the ſtudy of ſciences,

ſciences, may be deſirous to know the limits of the errors, of which the determinations of longitude at ſea, deduced from obſervations of the diſtance of the moon from the ſun, are ſuſceptible, it will not appear mal-apropos to give an idea of it in this place.

Theory, aſſiſted by a long ſeries of obſervations, has not yet been able to furniſh perfectly accurate tables of the moon's motion. Yet, conſidering the degree of preciſion theſe tables have already attained, this firſt ſource of error only leaves an uncertainty of 40 or 50 ſeconds of time at moſt, and generally not exceeding 30 ſeconds, making only a quarter of a geographical degree of longitude; becauſe the motion of the moon with reſpect to the ſun is, by a middle term, half a minute of a degree for every minute of time, and the minute of time anſwers to a quarter of a degree of longitude. From whence it follows, that the longitudes deduced from a compariſon of the diſtances obſerved at ſea, with the diſtances calculated for the ſame points of time, and for a fixed meridian, cannot be affected by an error in the tables, if there is one, above a quarter of a degree in moſt caſes, often leſs, and very rarely more.

The ſecond ſource of errors, ariſing from the imperfection of the inſtruments and want of accuracy or ſkill in the obſerver, cannot be determined with equal preciſion to that reſulting from the imperfection of the tables.

As to quadrants and ſextants, the limits of the error depend, as far as regards the inſtrument, on the accuracy of the diviſions; and with regard to the obſerver, 1ſt, on the difficulty of veriſying the point 0; 2d, on that of accurately obſerving the contact of the two planets: and this laſt depends on the goodneſs of the ſight, habit, and ſkill of the obſerver.

The reflecting circles have no common cauſe of error with the ſectants and quadrants, but the difficulty

of observing the contacts; whereas they possess several advantages which render them more certain. The principal of these are, that the error to be apprehended in their verification is a nullity; because the observations being made successively in opposite directions, to the right and left, there is no occasion for these verifications. As to the inaccuracy of the divisions, it is reduced at pleasure, according to the frequency with which the observations are repeated; and it depends on the patience alone of the observer, that the error arising from the divisions may, at last, be considered as a mere nullity.* After having thus established the limits of the errors, we are authorised to conclude, that the *medium* of our results, for the determination of the longitude by lunar observations, could not in any case be affected by an error exceeding a quarter of a degree. For having constantly used the reflecting circle, and having never neglected, for each operation, to repeat the observation as often as the circumstances of the weather would permit, and the observers being also perfectly practised, we had nothing further to fear, than the uncertainty or limited error that might arise from the imperfection of the lunar tables.

Thus then we were enabled to employ with confidence the results of these operations, repeated almost daily, to establish the regularity of the time-keeper, by the comparison of its results with those of the former. We confide also, and doubtless not without sufficient reason, in the combination and constant agreement of the several results of observations obtained in different circumstances, separately, as I have already stated, on board each ship; which serving reciprocally as proofs, have furnished a joint and in-

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

contestible

conteſtible argument of the undeviating regularity of the time-keeper, No. 19, by the aid of which we determined the longitudes of all the points of the coaſt of America, we reconnoitred. The precautions of every kind, which we multiplied and accumulated, afford me an aſſurance, that our determinations arrived at a degree of preciſion which ought to procure them the confidence both of learned men and navigators.

The utility of time-keepers is ſo generally acknowledged, and ſo clearly explained in the *Voyage de M. de Fleurieu*, that we ſhall only ſpeak of the advantages they procured us, in order more fully to ſhow how much M. Berthoud has ſurpaſſed the former limits of his art, ſince, after an interval of 18 months, No. 18 and No. 19 gave reſults equally ſatisfactory as at our departure, and permitted us to determine, ſeveral times in a day, our exact ſituation as to longitude, according to which M. Bernizet conſtructed the chart of the coaſt of America.*

This chart, no doubt, leaves much to be done in regard to minutiæ; but we can anſwer for the principal points of the coaſt, which are determined with perfect preciſion, as well as for its direction. It appeared to us in general bold; we perceived no breakers in the offing, and though there might be ſome ſand banks near the coaſt, we had no reaſon to think there were.

M. de Lamanon, who is the author of the following obſervations, is of opinion, that it is extremely difficult to give accurate vocabularies of the languages of the various tribes inhabiting the vicinity of

* I ought to obſerve, that the labour of the aſtronomical obſervations of the chart was common to both ſhips; and as M. Monge had quitted us at Teneriffe, M. de Langle, who is himſelf a very good aſtronomer, was charged with the direction of all this part of the work, in which he was aſſiſted by Meſſrs. Vaujuas, Lauriſton, and Blondela; of whom the laſt mentioned drew part of the charts, according to the obſervations with which he was furniſhed.

Monterey. All he could anſwer for, is the great pains and attention he beſtowed to avoid being the cauſe of the adoption of errors. He could not, perhaps, even himſelf place any confidence in his own obſervations, had he not, at the miſſions where he ſtaid four days, met with two Indians, who, being perfectly acquainted with the Spaniſh, afforded him the greateſt aſſiſtance.

I ſhall therefore obſerve, from the remarks of M. Lamanon, that there is, perhaps, no country where the various languages of the inhabitants are ſo extremely multiplied as in North California. The numerous tribes that divide that country, although ſituated very near each other, live in an inſulated manner, and have each a ſeparate language. It is the difficulty of learning them all, that conſoles the Miſſionaries for not being acquainted with any of them. Thus they ſtand in need of an interpreter in their ſermons, and in their exhortations at the point of death.

Monterey, and the Miſſion of San Carlos, which is dependent upon it, comprehend the country of the Achaſtlians and the Ecclemachs. The languages of theſe people, partly united in the ſame miſſion, would ſoon form a third, if the converted Indians ceaſed to hold communication with thoſe of the Rancherias. The language of the Achaſtlians is commenſurate with the feeble developement of their intellect. As they have few abſtract ideas, they have very few words to expreſs them: they did not even appear to diſtinguiſh, by different names, all the ſpecies of animals; and called by the ſame name of *ouakeche* both toads and frogs: nor do they diſtinguiſh better the vegetables they make uſe of. Their epithets, when applied to moral ſubjects, are almoſt all borrowed from the ſenſe of taſting, which they are fondeſt of gratifying; thus they uſe the word *miſſich* to expreſs a good

good man or ſavoury food, and *keches* for a bad man or corrupted meat.

They diſtinguiſh the plural from the ſingular, and conjugate ſome tenſes of verbs; but they have no declenſions, and their ſubſtantives are much more numerous than their adjectives. They never make uſe of the labials F and B, or of the letter X; but they have the *chr* as at *Port des Français*, as *chrſkonder*, a bird, and *chruk*, a hut; though their pronunciation is generally ſofter.

The diphthong *ou* occurs in above half their words, as *chouroui*, to ſing; *touroun*, the ſkin; *touours*, a finger-nail; and the moſt common initial conſonants are T and K; but their terminations are very various.

They make uſe of their fingers in counting as far as 10, few of them being able to do it by memory, or without the aſſiſtance of ſome external ſign. If they would expreſs the number nine, they begin to count with their fingers, one, two, three, and ſtop when they have pronounced the word with which they ſhould have begun. They ſcarcely get as far even as the number five without this aid.

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 above 20 leagues to the eaſtward of Monterey. Their language is totally different from all thoſe of their neighbours, and has even more reſemblance to the lan-

guages of Europe than to those of America. This grammatical phenomenon, the most curious in this respect ever observed on the continent, will, perhaps, be interesting to those of the learned, who seek, in the analogy of languages, the history and genealogy of transplanted nations. It appears, that the languages of America have a characteristic difference, which totally separates them from those of the ancient hemisphere. In comparing them with those of Brazil, Chili, and a part of California, as well as with the numerous vocabularies given by various travellers, it appears, that the American languages in general are deficient in labials, and particularly the letter F, which the Ecclemachs however employ, pronouncing it like the Europeans. The dialect of this tribe is, in other respects, more copious than that of the other nations of California, though it cannot be compared with the languages of civilized nations. Should it be inferred from hence, that the Ecclemachs are foreigners in this part of America, it must be at least admitted, that they have inhabited it for a long time, since they differ neither in colour, in countenance, nor in their general make and external appearance, from the other nations of that country.

Their numerical terms are,

One	*pek.*
Two	*oulach.*
Three	*oullef.*
Four	*amnahon.*
Five	*pemaca.*
Six	*pekoulana.*
Seven	*houlakoolano.*
Eight	*koulefala.*
Nine	*kamakoualane.*
Ten	*tomöila.*
Friend	*nigefech.*
Bow	*pagounach.*

Beard

Beard	*iſcotre.*
To dance	*meſpa.*
Teeth	*aour.*
Phoca	*opopabos.*
No	*maal.*
Yes	*ike.*
Father	*aoi.*
Mother	*atzia.*
Star	*aimoulas.*
Night	*toumanes.*

CHAP. XIII.

DEPARTURE FROM MONTEREY——OUR PROJECTED ROUTE FOR CROSSING THE WESTERN OCEAN TO CHINA—VAIN SEARCH FOR THE ISLAND OF NUESTRA SENORA DE LA GORTA—DISCOVERY OF THE ISLAND OF NECKER—WE MEET WITH A SUNKEN ROCK IN THE NIGHT, ON WHICH WE WERE NEARLY CAST AWAY—DESCRIPTION OF THIS ROCK—DETERMINATION OF ITS LATITUDE AND LONGITUDE—VAIN SEARCH FOR THE ISLAND OF LA MIRA AND GARDEN ISLAND——WE MAKE THE ISLAND OF ASSUMPTION, ONE OF THE MARIANAS OR LADRONES—DESCRIPTION AND TRUE PLACE OF THIS ISLAND, BOTH IN LATITUDE AND LONGITUDE—ERROR IN THE ANCIENT CHART OF THE MARIANAS—WE DETERMINE THE LATITUDE AND LONGITUDE OF THE BASHEE ISLANDS—WE ANCHOR IN THE HARBOUR OF MACAO.

THE part of the great ocean we had to croſs, in order to reach Macao, is almoſt unknown, and afforded us an expectation of meeting with ſome undiſcovered iſlands. The Spaniards, who alone frequent it, have no longer that ardour for diſcove-

ries, which their thirſt of gold perhaps firſt excited, but which induced them to encounter every danger. To that ancient enthuſiaſm have ſucceeded the frigid calculations of ſecurity; and their track, during their run from Acapulco to Manilla, is confined within a ſpace of twenty leagues, between the thirteenth and fourteenth degree of latitude. On their return they nearly run on the parallel of the fortieth degree, by the aſſiſtance of the weſterly winds, which are very frequent in theſe parts. Certain, from long experience, of not meeting with either ſunken rocks or ſhoals, they can navigate by night with as little precaution as in the ſeas of Europe; and their runs being more direct, become ſhorter, and the intereſts of the owners leſs expoſed to loſs by ſhipwreck.

The object, however, of our voyage being to make new diſcoveries, and to advance the progreſs of navigation in ſeas as yet but little known, we avoided the moſt frequented tracks with as much care as the galleons employ to keep, as it were, in the very wake of the veſſel that preceded them. We were, however, obliged to navigate within the latitude of the trade winds, as we could not expect, without their aid, to arrive at China within ſix months, ſo as to accompliſh the ulterior objects of our voyage.

On leaving Monterey, I intended to direct my courſe to the S. W. as far as the latitude of 28°, in which parallel ſome geographers have placed the iſland of Nueſtra Senora de la Gorta. All my reſearches to know what ancient navigator firſt diſcovered this iſland, were unſucceſsful. I repeatedly turned over my own notes, and all the printed voyages on board of both our ſhips, but I found neither a hiſtory nor a legend of this pretended iſland, to which I imagine geographers have continued to give a place in the great ocean, merely in conformity to the chart taken by Admiral Lord Anſon on board the galleon from Manilla *.

* See note on pages 85 and 86.

At

At Monterey I had procured a manuſcript Spaniſh chart of this ocean, which however differs but very little from that engraved under the direction of the editor of Anſon's voyage. And it may be aſſerted, that ſince the capture of the galleon from Manilla by that admiral, and even for the laſt two centuries, no advances have been made in the knowledge of this ſea, except in conſequence of the fortunate diſcovery of the Sandwich iſlands; the Reſolution and the Diſcovery being the only ſhips, except the *Bouſſole* and the Aſtrolabe, which, for 200 years, have quitted the track purſued by the galleons *.

We were detained two days, in ſight of Monterey, by contrary winds and calms, but they ſoon ſettled at N. W. and enabled me to get into the latitude of 28°, on which parallel I propoſed to run down 500 leagues, as far as the longitude aſſigned to the iſland of Nueſtra Senora de la Gorta; leſs indeed with a hope of meeting with that iſland, than to expunge it from our charts, becauſe it would be deſirable for the intereſts of navigation, that iſlands, whoſe latitude and longitude are erroneouſly laid down, ſhould remain in oblivion or totally unknown, till accurate obſervations, at leaſt, of latitude have given the line of their true place, ſhould no obſervations of longitude have admitted of determining the preciſe point they occupy on the ſurface of the globe. I intended afterwards to incline towards the S. W. and to croſs the track of Capt. Clerke, in the 20th degree of latitude, and the 179th degree of E. longitude, from the meridian of Paris; which is nearly the ſpot where this Engliſh captain was obliged to quit that track, in order to reach Kamtſchatka †.

My

* Admiral Anſon and various buccaneers, having no object but to make captures, have always followed the common track.

† Captain Clerke determined, after leaving the Sandwich Iſlands, to run along the parallel of 20 deg. as far as the meridian of Kamtſchatka;

My run was at firſt very fortunate. The wind changed from N. W. to N. E. and I doubted not we had got into the region of the periodical winds; but from the 18th of October they ſhifted to the weſtward, and continued as obſtinately in that quarter as in the high latitudes, only varying from N. W. to S. W. I ſtruggled againſt theſe obſtacles eight or ten days, taking advantage of every variation in the wind to get to the weſtward, and thus at laſt get into the longitude I propoſed.

We had, during that time, almoſt continual rains and ſtorms, which cauſed an extreme humidity in the between-decks, and drenched all the ſailors clothes: I much feared the ſcurvy would be the conſequence of this bad weather; but we had only a few degrees to run to arrive at the meridian I wiſhed for; I reached it on the 27th of October. We had then no ſigns of land, but two birds of the *coulon-chaud* kind*, which were caught on board the Aſtrolabe, and theſe were ſo lean, that it ſeemed extremely probable they had loſt their way for a long time out at ſea, and might come from the Sandwich Iſlands, from which we were but 120 leagues. The iſland of Nueſtra Senora de la Gorta being laid down on my Spaniſh map 45 miles more to the ſouthward, and five degrees more to the eaſtward, than upon Admiral Anſon's chart, I ſhaped my courſe to paſs this ſecond point, though with no better ſucceſs. The weſterly winds ſtill continuing to blow in theſe ſeas, I endeavoured to approach the tropic, in order at length to meet with the trade winds, which would carry us into Aſia, and

Kamtſchatka; becauſe that track being unfrequented, he hoped to make diſcoveries there. He did not alter his courſe till the 30th March, 1779, when he was in 180 deg. 40 min. E. long. or 179 deg. 20 min. weſt of the meridian of Greenwich; which gives 178 deg. 20 min. E. long. from that of Paris.—*French Editor.*

* Theſe are a marine bird, better known by the name of ſea-larks.

whoſe

whoſe temperature ſeemed more calculated to maintain the ſhips companies in good health. It is true we had not as yet one ſick man on board, but our voyage, though already very long, was ſcarcely commenced, if compared with the immenſe ſpace we had ſtill to paſs over. If the vaſt plan of our navigation diſheartened no man, yet our ſails and rigging reminded us every day, that we had been 16 months conſtantly at ſea; for at every inſtant ſome of our running ropes were breaking, and our ſail-makers were ſcarcely ſufficient to repair our ſails, which were almoſt entirely worn out. We had, it is true, other ſuits on board, but the length of our intended voyage demanded the ſtricteſt economy, and almoſt half our cordage was already unſerviceable, though we were ſtill very far from having accompliſhed half our projected navigation.

On the 3d November, in 24° 4′ N. lat. and 165° 2′ W. long. we were ſurrounded by birds of the noddy, man-of-war bird, and tern kinds, which generally go but a little way from the land. We therefore ſtood on with more caution, ſhortening ſail at night; and in the evening of the 4th November, got ſight of an iſland bearing weſt, diſtant four or five leagues, which, though it appeared inconſiderable, we flattered ourſelves was not alone.

I made the ſignal to keep cloſe to the wind, and to ſtand off and on all night, waiting with the greateſt impatience for day-light to purſue our diſcovery. At five in the morning of the 5th November, we were but three leagues from the iſland, and I bore away right before the wind to reconnoitre it. I hailed the Aſtrolabe to make ſail a-head and prepare to anchor, in caſe the coaſt ſhould afford an anchorage and a creek where we might land.

This iſland, which is very ſmall, is almoſt a mere rock, about 500 toiſes long, and at moſt 60 high; and though totally deſtitute of trees, it is furniſh-

ed

ed with a great deal of herbage towards its ſummit. The naked rock is covered with the dung of birds, and appearing white, forms a contraſt with the various red ſpots where graſs has not grown. I approached it within a mile, and its ſhores were as perpendicular as a wall, the ſea breaking violently againſt it in every part, ſo that it was impoſſible to attempt a landing. As we went almoſt round this iſland, we laid it down with great preciſion. Its latitude and longitude, as determined by M. Dagelet, are 23° 34′ N. and 166° 52′ W. from Paris. I named it *Iſle Necker*. If the ſterility of this iſland renders it of little importance, its preciſe place is extremely intereſting to navigators, to whom it might otherwiſe be fatal. I paſſed very near its ſouthernmoſt ſhore without ſounding, to avoid ſtopping the ſhip's way. Breakers appeared on every part of the ſhore, except the S. E. point, where was a ſmall ridge of rocks that might extend two cables' length. Wiſhing to know, before we continued our route, whether we could ſtrike ground, I ſounded, as did the Aſtrolabe, who was near a league to leeward, when on board each ſhip we only found 25 fathoms, over a bottom of broken ſhells. M. de Langle and myſelf were far from ſuppoſing there was ſo ſmall a depth of water, and I thought it evident that Necker Iſland is now but the ſummit or nucleus of a much more conſiderable iſland, which the ſea has, by degrees, waſhed away, becauſe in all probability conſiſting of a tender ſubſtance, or eaſily broke away; though the rock which now remains is very hard, and will equally defy, for ſucceeding ages, the ſilent mouldering of time and the boiſterous efforts of the ſea. As it was important we ſhould aſcertain the extent of this bank, we continued ſounding on board each ſhip, and ſteering to the weſtward. The depth encreaſed gradually as we got further from the land; and, at about ten miles diſtance, a line of 150 fathoms did not reach the

the ground. Throughout this ſpace of ten miles we only found a bottom of coral and broken ſhells.

The whole of that day we had men continually looking out at the maſt-head. The weather was ſqually and rainy, though from time to time we had very clear intervals, during which we could ſee ten or twelve leagues. At ſun-ſet it was as fine as poſſible in every quarter, and we ſaw nothing all around except birds, whoſe number had not diminiſhed, flights of ſeveral hundreds croſſing each other's track, and thus baffling our obſervations, regarding the point of the horizon to which they directed their courſe.

We had ſo fine a view at duſk, and the moon, which was almoſt at the full, afforded ſo ſtrong a light, that I thought we might ſafely ſtand on. In fact I had perceived in the evening Necker Iſland at four or five leagues diſtance. However, I ordered all the ſtudding ſails to be taken in, and to reduce the way of both ſhips to three or four knots an hour. The wind was eaſterly and we were ſteering to the weſtward; nor had we had a finer night, or a ſmoother ſea, ſince our departure from Monterey: but this very ſmoothneſs of the weather was nearly fatal to us. About half paſt one in the morning we perceived breakers at two cables' length a-head of our ſhip, but the ſea being ſo ſmooth they ſcarcely made the leaſt noiſe, and only broke at long intervals, and very ſlightly. The Aſtrolabe perceived them at the ſame time, being a little farther diſtant from them. We put our helm hard a-ſtarboard both at the ſame moment, and ſtood to the S.S.E. and as we made head-way during this manœuvre, I think we cannot reckon our diſtance from theſe breakers above a cable's length. I then ſounded, finding nine fathoms water over a rocky bottom, and ſoon after 10 fathoms, and then 12 fathoms; and a quarter of an hour afterwards we did not ſtrike ground with a line of 60 fathoms. Thus did we eſcape the moſt imminent danger that navigators could

could encounter. It is a duty I owe to my crew to declare, that I never ſaw leſs diſorder or confuſion in ſimilar circumſtances. The ſmalleſt neglect in the performance of the manœuvres to be made, in order to get clear of the breakers, would have been inevitably fatal. We perceived the continuation of theſe breakers near an hour, when they ran out to the weſtward, and at three o'clock we loſt ſight of them. However, I continued ſtanding to the S. E. till break of day, which was very fine and very clear: and we then ſaw no breakers, though we had only run five leagues ſince we had changed our courſe. I am perſuaded, that had we not more particularly reconnoitred this rock, we ſhould have left many doubts concerning its exiſtence; but it was not ſufficient to be certain of this, or to have eſcaped the danger; I was deſirous no future navigator ſhould be expoſed to it. I therefore made the ſignal, at day-break, to put about, in order again to find it. We perceived it at eight in the morning, bearing N. N. W. when I crowded ſail to near it, and ſoon perceived an iſlet or ſplit rock, of 50 toiſes diameter at moſt, and 20 or 25 high. It was ſituated at the N. W. extremity of this ſhoal, whoſe S. E. point, on which we were ſo near being loſt, extended above four leagues in that direction. Between the iſlet and the breakers towards the S. E. we ſaw three ſand-banks, not more than four feet above the ſurface of the ſea. They were ſeparated from each other by a kind of greeniſh water, which appeared to be not above a fathom deep. Some rocks even with the water's edge, on which the ſea broke violently, ſurrounded this ſhoal, as a ring of diamonds ſurrounds a medallion, and thus defended it from the fury of the ſea. We ſailed along it, at leſs than a league diſtance, to the eaſtward, to the ſouthward, and to the weſtward. The north ſide alone remained unexplored, as we had only a bird's eye view of it from the maſt-head. Thus, it is poſſible, it may be much more extenſive

extenſive than we imagined; but its length from S. E. to N. W. or from the extremity of the breakers, that had been nearly fatal to us, to the iſlet, is four leagues. The geographical poſition of this iſlet, which is the only apparent object, was determined by M. Dagelet to be 23° 45′ N. lat. and 188° 10′ W. long. It lies W. by N. from Necker Iſland, diſtant 23 leagues. It muſt not be forgotten that the eaſternmoſt point is four leagues nearer. I named this ſhoal *Baſſe des Frégates Françaiſes*, becauſe it was very near being the termination of our voyage.

Having thus determined, with all the preciſion in our power, the geographical poſition of this ſhoal, I directed my courſe to the W. S. W. I obſerved that all the clouds ſeemed to collect in that quarter, and I flattered myſelf to find at laſt a land of ſome importance. A great ſwell which came from the W. N. W. led me to conclude there was no iſland to the northward, and I could ſcarcely perſuade myſelf that Necker Iſland, and *the Shoal of the French frigates* did not belong to an archipelago, which might either be inhabited, or at leaſt inhabitable. My conjectures, however, were not realized. The birds ſoon diſappeared, and we loſt every hope of meeting with any further object.

I did not alter the plan I had formed, of croſſing the track of Captain Clerke in the 179th degree of E. long., and I reached that point on the 16th November. But, although above two degrees to the ſouthward of the tropic, we did not meet with thoſe trade winds, which in the Atlantic Ocean only ſuffer very ſlight and momentary variations. For a ſpace of 800 leagues, as far as the Marianas, we followed the parallel of 20° with winds almoſt as variable, as thoſe met with in June and July, upon the coaſts of France. The N. W. winds, which made the ſea riſe, veered to the northward, and then to the N. E.; the weather becoming clear and very fine. They ſoon ſhifted

ſhifted to the E. and S. E. The ſky was then watery and dull, and it rained very hard. Some hours after, when the ſame wind had ſhifted to the S. E., then to the W. and laſtly, to the N. W. the horizon cleared up. This change continued two or three days, but it did not once happen that the wind came about from the S. E. to E. and to N. E.

I have entered into theſe particulars of the regularly variable winds at this ſeaſon, and in this latitude, becauſe they appear to contradict the theory of thoſe, who explain the conſtancy, and the regularity of the winds between the tropics, by the rotatory motion of the earth. It is very extraordinary, that on the moſt immenſe ſea of the globe, and in a ſpace, where the reaction of the land can have no influence, we ſhould find variable winds for near two months, and that they ſhould be continually eaſterly only in the neighbourhood of the Marianas *. Though

* If the cauſe of the trade winds is uncertain, the knowledge of their exiſtence, and the period when they blow is not the leſs important and uſeful to navigators. But a certain rule cannot be laid down, till the South Sea has been repeatedly traverſed in all ſeaſons. The voyages, however, that have hitherto been made, prove that the eaſterly winds reign on the ſeas deſcribed by La Pérouſe. A reference to the tables of the route in Cook's third voyage, will prove their conſtancy, during the months of March, April, &c. If Clerke changed his courſe ſooner, he did not intend to do ſo, and it was not in conſequence of the change of the winds, for as ſoon as they blew from the ſouthward, he took advantage of them to run to the northward. Captain King thus expreſſes himſelf on the conſtancy of the winds. "During the continuance of the light winds, "which prevailed almoſt conſtantly ever ſince our departure from "the Sandwich Iſlands."——And in the following page, he ſays, "On the 6th of April, at noon, we loſt the trade wind."

On comparing Dixon's journal with his table of the route, it appears that he left Atoui the 18th September, and arrived at Macao on the 18th November, having in 52 days of navigation, between the equator, and the 13th degree of N. lat. run 88 degrees of longitude, with only one day of ſouth wind: all the reſt of the time the wind continued eaſterly.

"Our Captain judged it more prudent to ſteer to the ſouthward, "till we were in about 13 deg. 30 min., and then bear away to the "weſt-

Though we only purſued one track upon this ocean, this is not a fact entirely inſulated, for our run continued near two months.

I agree, however, that we ought not hence to conclude, that the zone comprehended between the northern tropic, and the 19th degree, is without the limits of the trade winds in the month of November and December. One ſingle voyage is not ſufficient to change received opinions, but we may aſſert, that the laws on which they are founded, are not ſo univerſal, as to admit of no exceptions, and conſequently, that they may be explained by thoſe, who think they have penetrated into the ſecrets of nature.

Even the theory of Halley concerning the variation of the magnetic needle, would have appeared totally undeſerving of confidence, even in the eyes of its inventor, had that aſtronomer, ſo juſtly celebrated in ſo many various ways, departed from Monterey in 124° W. long., and croſſed the great ocean as far as 160° E. long.: for he would then have perceived, that in a ſpace of 76°, or more than 1500 leagues, there is a difference in the variation of only five degrees, and that conſequently the navigator cannot draw any concluſion from it to determine or rectify his longitude. The method, however, by lunar obſervations, particularly when combined with that of the time-keepers, leaves ſo little to be done in this reſpect, that we made Aſſumption Iſland, one of the Marianas, with the greateſt preciſion, in the ſuppoſition that the iſland of Tinian, of which Captain Wallis has given the place

" weſtward, as that track was moſt likely for a true trade, and it had " been found in Captain Cook's laſt voyage, that in the latitude 20 " and 21 deg. to leeward of theſe iſlands, the winds are at beſt but " light, and often variable.—*Dixon's Voyage*, p. 281.

" From the 22d October to the 31ſt, we had little variety. A con- " ſtant eaſterly trade wind cauſed a heavy ſwell, &c.—*idem*, p. 285.

Here then is an additional proof, that the trade winds reign between theſe parallels, during the months of September, October, and November.—*French Editor.*

according to his obſervations, lay nearly ſouth of Aſſumption; a direction which all geographers, and navigators have agreed in aſſigning to the Ladrones or Marianas. We made theſe iſlands on the 14th December at two in the afternoon. I had ſhaped my courſe to paſs between the iſland of Mira, and that of Deſerta, and Garden Iſland, whoſe empty names occupy places on the chart, where no land ever exiſted; thus deceiving navigators, who will, perhaps, hereafter meet with them ſeveral degrees to the northward or ſouthward *. Aſſumption Iſland itſelf, which forms a part of this well known cluſter, of which we have a hiſtory in ſeveral volumes, is placed in the Jeſuits' chart (ſince copied by all other geographers) 30′ too much to the northward. Its true place is 19° 45′ N. lat., and 143° 15′ E. long.

As we ſaw from our anchoring place Mangs bearing 28° weſt, diſtant about five leagues, we found that the three rocks of that name are alſo placed 30′ too much to the northward; and it is almoſt certain the ſame error exiſts with regard to Uracas, the laſt of the Mariana Iſlands, of which the archipelago ſhould only extend as far as 20° 20′ N. lat. The Jeſuits have pretty accurately appreciated their diſtances from each other, but they have made very bad aſtronomical obſervations in this reſpect. Nor have they been happier in fixing the ſize of Aſſumption Iſland, for which they had probably no other method than their reckoning. For though they deſcribe it as ſix leagues in circumference, the angles of our ſurvey reduce it to half that extent; its higheſt

* I have already advanced in the notes on pages 24, 31, and 35, that we are not authoriſed, and that it would even be dangerous to expunge from our charts, every ancient diſcovery, for which ſome navigator may have ſought in vain. An additional proof of this aſſertion is afforded by Captain Marſhall, who returning from Botany Bay to Macao, in 1788, met with Garden Iſland, or Iſla de los Jardines in 21¾ deg. N. lat. and 148½ W. long. from the meridian of Paris.—*French Editor.*

point

point being about 200 toiſes above the level of the ſea. It would be difficult for the moſt lively imagination to paint a more horrid place, though the moſt ordinary aſpect after ſo long a run would have been delightful to us: but a perfect cone, whoſe ſurface, as far as 40 toiſes above the level of the ſea was as black as coal, could only excite painful ſenſations, by chilling every flattering hope: for during many weeks paſt, we had anticipated the turtles and cocoa nuts, in which we hoped to luxuriate on one of the Mariana iſlands.

In fact we perceived ſome cocoa-nut trees, which occupy ſcarcely a fifteenth part of the circumference of this iſland, for a depth of 40 toiſes, and which were in a manner concealed and ſheltered from the eaſt wind. This was the only part of the iſland where it was poſſible to anchor, the depth of water being 30 fathoms over a bottom of black ſand, which extends leſs than a quarter of a league. The Aſtrolabe had gained this anchoring place, I had alſo come to within piſtol ſhot of her; but having drove half a cable's length, our anchor loſt its hold, and we were obliged to weigh it again with 100 fathoms of cable out, and make two boards to get in with the land. This little accident gave me not much uneaſineſs, as I perceived the iſland did not merit a long ſtay. My boat was gone aſhore under the command of M. Boutin, *lieutenant de vaiſſeau*, as well as that of the Aſtrolabe, in which M. de Langle went himſelf, together with Meſſrs. de la Martinière, Vaujuas, Préyoſt, and Father Receveur. I obſerved, by the help of my glaſs, that they had great difficulty in landing, as the ſea broke every where; but they had taken advantage of a ſmooth interval, by leaping into the water up to their necks. I was fearful they would find ſtill greater difficulty in re-embarking, as the ſurf might increaſe every moment. This was the only circumſtance that could induce me to anchor there, for we were all now as anxious to depart, as we had

been ardently deſirous to arrive. I was therefore very happy to ſee our boats return at two o'clock, and the Aſtrolabe got under way. M. Boutin informed me the iſland was a thouſand times more horrible than it appeared at a quarter of a league diſtance. The lava that had flowed from it has formed precipices and hollows, bordered with a few ſtunted cocoa-nut trees, very thinly ſcattered, and mixed with limes, and a ſmall number of plants, among which it is almoſt impoſſible to go 100 toiſes in an hour. Fifteen or ſixteen men were employed from nine in the morning till noon in bringing about 100 cocoa-nuts to the boats, though they had only to pick them under the trees; for they found the greateſt difficulty in carrying them to the ſea-ſide, notwithſtanding the diſtance was very ſhort. The lava which had iſſued from the crater, had covered the whole circumference as far as a border of about 40 toiſes towards the ſea. The ſummit appeared in a manner vitrified, but reſembling black glaſs of the colour of ſoot. We never perceived the termination of the ſummit, which was capped with clouds. Although we ſaw no ſmoke, the ſulphureous ſmell, which extended half a league out to ſea, led me to ſuſpect it was not entirely extinguiſhed, and that its laſt eruption was poſſibly not very ancient; for there appeared no trace of decompoſition in the lava on the middle of the mountain.

Every thing ſhowed that no human creature, nor even a quadruped, had ever been unfortunate enough to have this iſland for its home. We ſaw nothing but crabs of the largeſt kind, very dangerous during the night to the weary traveller who ſhould reſign himſelf to ſleep. One of them was brought on board. It is probable this ſhell-fiſh has driven away from the iſland the ſea-birds, who always lay on ſhore, and whoſe eggs they would devour. We only ſaw three or four noddies at the anchoring-place: but when we approached the Mangs, our ſhips were

were ſurrounded with innumerable flights of birds. On Aſſumption Iſland M. de Langle killed one reſembling a black-bird, and of the ſame colour, but it was not added to our collection, as it fell down a precipice. Our naturaliſts found, in the hollows of rocks, ſome very fine ſhells; and M. de la Martinière made an ample harveſt of plants, bringing on board three or four ſpecies of the banana-tree, which I had never ſeen in any country. We did not perceive any other fiſh than a red ray, ſome ſmall ſharks, and a ſea ſerpent, which might be three feet long, and three inches thick. The 100 cocoa-nuts, and the ſmall quantity of ſpecimens of natural hiſtory we had ſo rapidly ſnatched from the volcano, for ſuch is the true deſcription of the iſland, had expoſed our boats and crews to conſiderable dangers. M. Boutin, obliged to throw himſelf into the ſea, both to get on ſhore and to re-embark, received ſeveral wounds in his hands, having been neceſſitated to lean on the ſharp rocks with which the iſland is ſkirted. M. de Langle alſo ran ſome riſks, but theſe are unavoidable in landing in ſuch ſmall iſlands, and particularly thoſe ſo circular in their form. The ſea, which comes from to windward, glides along the ſhore, and forms, at every point, a ſurf which renders debarkation extremely dangerous.

Fortunately we had a ſufficiency of water till our arrival in China; for it would have been difficult to take it in at Aſſumption Iſland, even ſhould it afford any. Our adventurers perceived none, except in the hollows of ſome rocks, where it was preſerved as in a bowl; nor did the moſt conſiderable of theſe contain more than ſix bottles.

At three o'clock, the Aſtrolabe having got under ſail, we continued our courſe W. by N., ranging along the Mangs, which bore from us N. E. by N. diſtant three or four leagues. I was deſirous of determining the poſition of Uracas, the northernmoſt of the Maria-

nas, but we must have sacrificed a night, and I was anxious to reach China, lest the European ships should be sailed before our arrival. By them I ardently wished to send home to France, an account of our labours on the coast of America, as well as of our voyage to Macao; and, therefore, that we might not lose a moment, I stood on under a crowd of sail.

Both our ships were surrounded, during the night, with innumerable flights of birds, apparently inhabitants of the Mangs and Uracas, which are mere rocks. It is evident these birds do not go to a distance from them, but to leeward; for we scarcely saw any to the eastward of the Mariana, and they accompanied us 50 leagues to the westward. The greatest number of these were a species of man-of-war birds and noddies, with some gulls, terns, and tropical birds. We met with strong breezes in the channel that separates the Marianas from the Philippine Islands, a very heavy sea, and currents, that set us constantly to the southward: their drift may be estimated at half a knot an hour. My ship now made a little water for the first time since our departure from France, which I attributed to some of the oakum in the seams near the water line having rotted. Our caulkers, who, during this run, examined the ships sides, found several seams almost open, and they suspected those near the water to be in the same state. They had not been able to repair them at sea, but it was their first business on our arrival in the road of Macao.

On the 28th we saw the Bashee Islands,* of which Admiral Byron has laid down the longitude, though inaccurately; that of Captain Wallis being nearer the truth. We passed at a league distance from the northernmost rocks. They ought, however, to be called *Isles*, notwithstanding the authority of Dam-

* The Bashee or Bachi Islands, were so named by William Dampier from an intoxicating liquor drunk there in great abundance. —*French Editor.*

pier,

pier, for the ſmalleſt of them is half a league in circumference; and although it is not wooded, we ſaw many herbs on the eaſt ſide of it. The eaſt longitude of this iſlet was determined when bearing ſouth of us, diſtant three miles; and according to a mean of above 60 ſets of lunar obſervations, taken in the moſt favourable circumſtances, was fixed at 119° 41′, and its latitude at 21° 9′ 13″ N. *. M. Bernizet alſo delineated the relative ſituation of all theſe iſlands, and drew a plan of them, which was the reſult of above 200 bearings. I did not propoſe to put in there, the Baſhee's having been already repeatedly viſited, and there being nothing intereſting to invite us.

Having therefore determined their poſition, I continued my courſe towards China, and on the firſt of January, 1787, I ſtruck ground in 60 fathoms water. The next day we were ſurrounded by a great number of fiſhing-boats, which kept the ſea in ſpite of bad weather, but could not divert their attention towards us for a moment, the nature of their fiſhery not permitting them to turn aſide to come along ſide of a ſhip, while dragging along the ground nets of an extreme length, that could not be raiſed in two hours.

On the 2d of January we ſaw White-rock, and anchored at night to the northward of Ling-ting, and the next day in the road of Macao; after having paſſed a channel, † which, though very ſafe, I believe to be but little frequented. We took Chineſe pilots on board within the iſland of Lamma.

* I think it neceſſary to appriſe navigators, that theſe pretended rocks are ſmall iſlands, becauſe that erroneous name led me into an error during ſeveral hours.

† Navigators who wiſh to know this channel, ought to procure Dalrymple's chart, publiſhed in the Neptune of Dapres. We left the great Lema, the iſlands of Ling-ting, Chichow, Laf-ſam-mee, Long-ſhitow, and Chang-chow, to the ſouthward; and to the northward only the iſland of Sockochow, and the great iſland of Lantao.

CHAP. XIV.

ARRIVAL AT MACAO—STAY IN THE ROAD OF TYPA—POLITE RECEPTION OF THE GOVERNOR—DESCRIPTION OF MACAO—ITS GOVERNMENT—POPULATION—AND RELATION WITH CHINA—DEPARTURE FROM MACAO—OUR LAND-FALL IN THE ISLAND OF LUCONIA—UNCERTAINTY OF THE SITUATION OF THE BANKS OF BULINAO, MANSILOQ, AND MARIVELLE—WE ENTER THE BAY OF MANILLA BY THE SOUTH CHANNEL, HAVING TRIED THE NORTH IN VAIN—MARKS FOR WORKING INTO THE BAY OF MANILLA WITHOUT DANGER—ANCHORAGE AT CAVITA.

THE Chineſe, who had piloted us into Macao, refuſed to conduct us to the anchorage of Typa, ſhowing the greateſt anxiety to get away with their boats; and we have ſince learned, that had they been ſeen, the mandarin of Macao would have demanded of each of them half the money they received; a ſort of contribution which is generally preceded by ſeveral ſound baſtinadoes. This nation, whoſe laws are ſo panegyriſed in Europe, is perhaps the moſt miſerable, the moſt oppreſſed, and the moſt arbitrarily governed people on the face of the earth; at leaſt if we may judge of the Chineſe government by the deſpotiſm of the mandarin of Macao.

The weather, being very cloudy, had not yet permitted us to diſtinguiſh the town; but it cleared up at noon, when it bore W. 1° S. diſtant about three leagues. I then ſent a boat aſhore, under the command of M. Boutin, to apprize the governor of our arrival, and to inform him we propoſed making ſome ſtay in the harbour, in order to procure refreſhments, and give repoſe to our ſhips' companies. Senhor Bernardo Alexis de Lemos, governor of Macao,

cao, received that officer with the greateſt politeneſs, and offered us every aſſiſtance in his power, ſending immediately a Malay pilot on board to carry us to the anchorage of Typa. We got under ſail the next day at day-break, and dropped anchor at eight in the morning, in three and a half fathoms water over a muddy bottom, the town of Macao, bearing N. E. diſtant five miles.

We anchored alongſide a French ſhip armed *en flûte*, commanded by M. de Richery, *enſeigne de vaiſſeau*. This ſhip came from Manilla, and was ordered by Meſſrs. d'Entrecaſteaux and Coſſigny to cruize off the eaſtern coaſts to protect our trade. Thus, after an interval of 18 months, had we the pleaſure of meeting, not only with our countrymen, but even our friends and acquaintance. M. de Richery had, the preceding evening, come on board with the Malay pilot, bringing us a conſiderable quantity of fruits, vegetables, freſh meat, and, in a word, every thing he imagined would be agreeable to us, after ſo long a voyage. Our healthy appearance ſeemed to ſurprize him, and he informed us of the political tranſactions of Europe, whoſe ſituation was preciſely the ſame as at our departure from France; but all my enquiries at Macao, for ſome one who might have any packets for us were in vain. It was more than probable, no letters addreſſed to us had arrived in China, and we felt a painful alarm leſt our families and friends had forgotten us. But unhappy circumſtances render men unjuſt; and it was poſſible the letters, we ſo ſeverely regretted, might have been ſent on board the Company's ſhip that had loſt her voyage. Her conſort had arrived alone, and it appeared by the captain's information, that the greateſt part of the funds and all the letters had been put on board the other ſhip. The misfortunes that had prevented the arrival of this ſhip, did not perhaps give ſo much pain to the ſtockholders themſelves as we

experienced

experienced at this disappointment; nor could we avoid remarking that of twenty-nine English ships, five Dutchmen, two Danes, a Swede, two Americans, and two French, the only one that lost her voyage was from our own country. As the English never entrust their ships but with thorough bred seamen, such an event to them is almost unheard of. Even when they arrive in the seas of China so late as to find the N. E. monsoon set in, they obstinately struggle with this opponent, and often get to the eastward of the Philippines, and then getting up to the northward in this sea, which is infinitely more extensive and less exposed to currents, they return south of the Bashee islands, stand in for Piedra Blanca, and, like us, pass to the northward of Great Lema. We ourselves witnessed the arrival of an English ship, which, after pursuing that track, anchored ten days after in the harbour of Macao, and immediately afterwards went up to Canton *.

My first step, after mooring the ship, was to go on shore with M. de Langle, to thank the Governor for his polite reception of M. Boutin, and to ask his permission to have a station on shore for setting up an observatory, and to accommodate M. Dagelet, who was greatly fatigued with our last voyage, and M. Collin our surgeon-major, who after preserving us from the scurvy, and all other disorders, by his attention and advice, would himself have sunk beneath the fatigues of this long run, had we arrived a week later.

Senhor de Lemos received us like countrymen. All we had asked was granted, with a politeness no language can describe. He offered us his house, and as he did not speak French, his wife, a young Portuguese from Lisbon, acted as interpreter. She communi-

* D'Entrecasteaux performed a voyage from the Isle of France to China against the monsoons, crossing the seas by almost unknown tracks, and discovered several rocks not laid down in any chart.—*French Editor.*

cated

cated her husband's replies with a gracefulness, and an amiability peculiar to herself, and exceeding every thing a traveller might flatter himself with finding in the principal cities of Europe.

Dona Maria de Saldanha had married Senhor de Lemos at Goa twelve years before; and I arrived at that place soon after the nuptials, then commanding La Seine, a ship armed *en flûte*. She politely reminded me of that circumstance, of which, however, I had a very lively impression, kindly adding that I was an old acquaintance. Then calling her children, she said it was thus she always presented herself to her friends, their education being the object of all her care: that she was proud of being their mother, and that we must forgive that pride, as she wished to introduce herself with all her faults.

No part of the world, perhaps, could exhibit a more enchanting picture. The most beautiful children surrounding and embracing the most charming of mothers, whose goodness and sweetness diffused a general warmth of colouring over every thing around her.

We soon perceived that, added to her accomplishments and domestic virtues, she possessed a firmness of character, and an elevation of mind, in consequence of which Senhor de Lemos had, in many situations of delicacy with regard to the Chinese, been confirmed in his generous resolutions by his lady; both of them coinciding in opinion that they ought not, like their predecessors, to sacrifice the honour of their nation to any other object. The administration of Senhor de Lemos would have formed an epocha in that settlement, had the government at Goa been sufficiently enlightened to continue him longer in office than three years, and left him time to accustom the Chinese to a resistance, obliterated even from their memory for above a century.

An inhabitant of Macao being as much a stranger to China

China as if in Europe, in conſequence of the extreme difficulty of penetrating into that empire, I ſhall not imitate thoſe travellers who have ſpoken of it without knowing it, but ſhall confine myſelf to a deſcription of the commercial relation between the Europeans and the Chineſe, the extreme humiliation they experience, the feeble protection they receive from the Portugueſe ſettlement on the coaſt of China, and, in ſhort, the importance which the town of Macao might poſſeſs, in the hands of a nation that would conduct itſelf with juſtice, with firmneſs, and with dignity, againſt a government, perhaps, the moſt unjuſt, the moſt oppreſſive, and at the ſame time, the moſt cowardly that exiſts.

The Chineſe carry on a trade with the Europeans amounting to 50 millions, two fifths of which are paid for in ſilver, and the reſt in Engliſh woollen manufactures, Batavian or Malaytutenag, Surat and Bengal cotton, opium from Seringatam, ſandal wood, and pepper from the Malabar coaſt. Some articles of luxury are alſo brought from Europe, as the largeſt plates of glaſs, Geneva watches, coral, and fine pearls: but theſe laſt ſcarcely deſerve mention, as they can only be ſold in very ſmall quantities, and with little advantage. In exchange for all theſe riches, China only gives green and black tea, with ſome cheſts of raw ſilk for European manufactures: for I do not reckon the porcelain, brought home as ballaſt, or the ſilks, which produce ſcarcely any profit. Certainly no nation carries on ſo advantageous a trade with foreigners, impoſes conditions ſo hard, or multiplies reſtraints and vexations in ſo many various ways. Not a cup of tea is drunk in Europe, which has not occaſioned ſome humiliation to its purchaſers, its ſhippers, and thoſe who traverſe half the globe to bring this leaf to our markets.

I cannot here refrain from relating, that two years ago, an Engliſh gunner being ordered by his Captain

tain to fire a salute, killed a Chinese fisherman in a *sampane*, which lay imprudently in the range of his gun, and which the former could not perceive. The Santock, or Governor of Canton demanded the gunner to be delivered up, which was not complied with, till he promised no harm should be done to him, adding, that he was not so unjust as to punish an involuntary homicide. On this assurance the poor fellow was given up, and two hours after was hung. The honour of the nation required a prompt and exemplary vengeance, but merchantships had no means to enforce it, and the Captains, accustomed to act with precision, good faith, and moderation, in order not to compromise the property of their employers, could not engage in a generous resistance, which would have cost the Company a loss of 40 millions, by their ships returning empty. But they have doubtless denounced that injury, and flatter themselves with the prospect of obtaining satisfaction. I dare affirm, that all the persons employed by the different European companies, would joyfully unite in sacrificing a great part of their fortunes, to teach these base mandarins, that there are limits to their injustice, and that their enormities have exceeded the bounds of humanity to tolerate.

The Portuguese have more reason to complain of the Chinese than any other nation. Their respectable title to the possession of Macao is well known. The grant of the site of that city is a monument of the gratitude of the Emperor Camhy, granted to them as a reward for destroying the pirates, who from the islands in the vicinity of Canton, infested the seas and ravaged all the coasts of China. It is a vain declamation to attribute the loss of their privileges to their abuse of them. Their only crime is the feebleness of their government. The Chinese every day load them with new injuries, and every moment increase their pretensions; to which the Portuguese govern-

government never oppoſed the leaſt reſiſtance; and thus this ſtation, from which a nation that poſſeſſed the leaſt energy, might overaw the Emperor of China, is ſcarcely more than a mere Chineſe village, where the Portugueſe are tolerated, although poſſeſſing an inconteſtible right to command, and the means to make themſelves reſpected, had they but a garriſon of 2000 Europeans, with two frigates, a few *corvettes*, and a bomb-ketch.

Macao, which is ſituated at the mouth of the Tigris, has a road-ſtead ſpacious enough to contain 60 gun ſhips at the entrance of Typa, and in its harbour, which is below the town, and communicates with the river up to the eaſtward, ſhips of ſeven or eight hundred tons, with half their lading. According to our obſervations it is in 22° 12′ 40″ N. lat. and 111° 19′ 30″ E. long.

The mouth of this harbour is defended by a fortreſs of two batteries, which muſt be kept within piſtol-ſhot in entering. Three ſmall forts, two of which are mounted with twelve guns, and the third with ſix, protect the ſouth ſide of the town from every attempt of the Chineſe. Theſe fortifications, which are in the worſt poſſible ſtate, would be far from formidable to Europeans, but they may eaſily overawe all the maritime forces of the Chineſe. A mountain alſo commands the coaſt, where a detachment of troops would hold out a very long ſiege. The Portugueſe of Macao, more devout than warlike, have built a church on the ruins of a fort, which crowned this mountain, forming, at that time, an impregnable poſt.

The ſide next the land is defended by two fortreſſes, one of which is mounted with 40 guns, and capable of containing a garriſon of 1000 men. It is provided with a ciſtern, two ſprings of running water, and caſemates to lay up warlike ammunition and proviſions. The other, which mounts 30 guns, cannot

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cannot receive above 300 men, and has a very abundant ſpring that never fails. Theſe two citadels command the whole country. The Portugueſe frontiers extend nearly a league from the town, and are bounded by a wall guarded by a mandarin and a few ſoldiers. This mandarin is the true governor of Macao, whom all the Chineſe obey, though he is not allowed to ſleep within theſe limits. But he may examine all the fortifications, inſpect the cuſtom-houſes, &c. and on theſe occaſions the Portugueſe are obliged to give him a ſalute of five guns. But no European can make a ſingle ſtep on the Chineſe territory beyond the wall, and the leaſt imprudence of this kind would leave him at the mercy of the Chineſe, who might either keep him in priſon, or exact from him a heavy contribution. Some of the officers of our ſhips, however, expoſed themſelves to this riſk, without this act of levity being followed by any unhappy conſequences.

The whole population of Macao may be computed at 20,000, of whom 100 are Portugueſe by birth, 2000 metis, or half Indians and half Portugueſe, as many Caffre ſlaves, their domeſtics. The reſt are Chineſe, who employ themſelves in commerce and different trades, by which they lay the Portugueſe themſelves under contribution to their induſtry. Theſe laſt, although almoſt all mulattoes, would think themſelves diſgraced, if they ſupported their families by exerciſing any mechanic art, though their pride is not above continually ſoliciting charity, with importunity, from every one they paſs.

The Viceroy of Goa nominates to all civil and military offices at Macao, and appoints the Governor and all the Senators, who participate in the civil authority. He has lately fixed the garriſon at 180 Indian ſeapoys, and 120 militia men, whoſe ſervice conſiſts in patroles at night. The ſoldiers are armed with ſticks, and

and the officer alone has the privilege of wearing a ſword; though he can on no occaſion employ it againſt a Chineſe. Even ſhould a thief of that nation be found breaking the door of a houſe, and carrying away his goods, he muſt arreſt him with the greateſt caution; and ſhould the ſoldier, in defending himſelf againſt the thief, have the misfortune to kill him, he is delivered up to the Chineſe governor, and hung in the market place, in the preſence of the guard to which he belonged, of a Portugueſe magiſtrate, and of two Chineſe mandarines; who, after the execution, are ſaluted by the forts as they quit the city, in the ſame manner as they are on entering it. But if, on the other hand, a Chineſe kills a Portugueſe, he is only conſigned to the judges of his own nation, who, after having plundered him, perform the other formalities of juſtice; but ſuffer him to eſcape, and turn a deaf ear to the remonſtrances of this injured nation, which are never followed by any ſatisfaction.

The Portugueſe, however, have of late made an effort of vigour, which will be engraved on tablets of braſs in the faſti of the Senate. A ſeapoy having killed a Chineſe, they ſhot him in preſence of the mandarines, and refuſed to ſubmit this affair to the deciſion of the Chineſe tribunal.

The Senate of Macao is compoſed of the Governor, who is preſident, and three *vereadores*, who are the auditors of the city finances. The revenue conſiſts of the duties laid on merchandize, which can only be imported in Portugueſe veſſels. They are ſo unenlightened, that they would not permit a ſhip of any other nation to land their cargo, even on paying theſe eſtabliſhed duties, as if they feared to encreaſe the revenue of their own treaſury, or diminiſh that of the Chineſe at Canton.

It is certain that were Macao made a free port, and had that city a garriſon capable of defending commercial

mercial property, when depoſited there, the revenue of their cuſtom-houſe would be doubled, and would, doubtleſs, be adequate to all the expences of the government. But a trifling intereſt oppoſes this regulation which ſound policy ſo clearly dictates. The Viceroy of Goa ſells Portugueſe commiſſions to the merchants of the various nations who carry on a coaſting trade in the Eaſt Indies; and theſe ſame ſhip owners make preſents to the Senate of Macao, according to the importance of their voyage; a commercial motive which would be an invincible obſtacle to the eſtabliſhment of a free trade, though Macao would be thereby rendered one of the moſt flouriſhing cities of Aſia, and inconceivably ſuperior to Goa, whoſe utility to its mother country will never be conſiderable.

Next in rank to the three *vereadores* already mentioned are two Judges of Orphans, whoſe department includes the adminiſtration of the property of minors, the execution of wills, the nomination of tutors and guardians, and, in general, every thing relative to ſucceſſions. From their deciſion lies an appeal to that of Goa.

Other civil or criminal cauſes are alſo cognizable, in the firſt inſtance, by two ſenators, who are nominated as judges. A treaſurer receives the produce of the cuſtoms, and pays, under the orders of the Senate, the ſalaries and diſburſements, which, however, when exceeding 3000 piaſtres, muſt be ſanctioned by an order of the Viceroy of Goa.

The moſt important magiſtracy is that of the Procurator of the city, which is an intermediate office between the Portugueſe government and that of China. He gives anſwers to all foreigners who may winter at Macao, and receives and tranſmits to their reſpective governments the mutual complaints of the two nations, of which a Secretary, who has no deliberative voice, keeps a regiſter, as alſo of all the de-

liberations of the council. This is the only office for life, that of the Governor being triennial, and the other magiſtates replaced every year. So frequent a change, which is inimical to every regular ſyſtem, has contributed not a little to the annihilation of the ancient rights of the Portugueſe, and doubtleſs can only be continued, becauſe the Viceroy of Goa finds his advantage in having many places to give away or fill; a conjecture authorized by the general manners and cuſtoms of Aſia.

An appeal lies to Goa from all the deciſions of the ſenate, and is rendered extremely neceſſary by the known incapacity of the Senators. The colleagues of the Governor, who is himſelf a man of great merit, are Portugueſe of Macao, and are extremely haughty and conceited, though more ignorant than a country ſchoolmaſter.

The appearance of this city is extremely pleaſant. Among the remains of its ancient opulence are ſeveral fine houſes occupied by the ſupercargoes of the different companies, who are obliged to paſs the winter there; the Chineſe compelling them to quit Canton as ſoon as the laſt ſhip of their nation has ſailed, and not permitting them to return till the arrival of ſhips from Europe in the following monſoons.

Macao is rendered a very agreeable winter reſiſidence by the different ſupercargoes, who are generally men of diſtinguiſhed merit, extremely well informed, and have ſalaries that enable them to keep an excellent houſe. The object of our miſſion procured us the politeſt reception from them, for we ſhould have been quit forlorn, had we come with no other title than that of Frenchmen, our Eaſt India company as yet having no repreſentative at Macao.

We owe a public teſtimony of gratitude to M. Elſtockenſtrom, the principal agent of the Swediſh Eaſt India company, whoſe behaviour towards us was that of an old friend and fellow-countryman, who warmly

warmly eſpouſed the intereſts of our nation. He was even deſirous at our departure to take upon himſelf the ſale of our furs, the produce of which was to be divided among our crews, and he very kindly promiſed to remit the amount to the Iſle of France.

The value of theſe furs did not now exceed one tenth of the price, when Captains Gore and King arrived at Canton, becauſe the Engliſh had this year fitted out ſix expeditions to the N. W. coaſt of America; two ſhips in that trade having ſailed from Bombay, two from Bengal, and two from Madras. The two laſt alone had returned, and brought but a ſmall quantity of ſkins. But the report of this equipment had ſpread at China, and they only obtained 12 or 15 piaſtres for the ſame quality as in 1780 would have produced 100.

We had 1000 ſkins which a Portugueſe merchant had agreed to purchaſe for 9500 piaſtres; but at the time of our departure for Manilla, when he was to have paid the money, he heſitated to receive them under various frivolous pretexts. As this bargain had deprived us of every other buyer, who were all returned to Canton, he hoped, no doubt, that in this difficulty we ſhould accede to any price he might chuſe to give; and we had even reaſon to ſuſpect, that he ſent ſome Chineſe merchants to us, who offered a much ſmaller ſum. But, though unaccuſtomed to theſe manœuvres, they were too clumſily contrived not to be ſeen through, and therefore we poſitively refuſed to ſell them.

There now remained no other difficulty than that of landing our furs, and depoſiting them at Macao as an enterpôt. The Senate, to whom our conſul M. Vaillard applied, refuſed the permiſſion he ſolicited: but the Governor being informed they were the property of ſailors employed in an expedition, whoſe utility extended to all the maritime nations of Europe, thought it his duty to fulfil the views of the Portu-

gueſe government, by departing from the preſcribed forms, and acted on this, as on all other occaſions, with his accuſtomed delicacy *.

It is unneceſſary to obſerve, that the Mandarin of Macao made no demand for our ſtay in the road of Typa, which, together with the other iſlands, forms no part of the Portugueſe territories. His claim, had he made any, would have been rejected with contempt; but we learned, that he demanded 1000 piaſtres from the *comprador*, who ſupplied us with proviſions. That ſum, however, was but a trifle, when compared with the impoſitions of this *comprador* †, whoſe account, for the five or ſix firſt days, amounted

* Having ſeized every opportunity impartially to prove the credit due to Dixon, I doubt not the peruſal of La Pérouſe's voyage will occaſion that Captain ſome concern, for having accuſed our navigators of impoſture or of mercantile views. Juſtice demands that I ſhould repel this calumnious imputation. I ſhall quote the paſſage from Dixon's voyage, page 320.

"The L'Aſtrolabe and Bouſſale, two French ſhips, commanded "by M. Peyrouſe and de Langle, ſailed from France in 1785; they "are ſaid to have traced the N. W coaſt of America, from the "Spaniſh ſettlements of Montrery to 60 deg. of N. lat.; but this "ſeems rather improbable; for though theſe veſſels were profeſſed-"ly fitted out on diſcovery, yet the commanders did not forget that "furs were a valuable article, and, accordingly, whilſt on the Ame-"rican coaſt, they procured about 600 ſea-otter ſkins, chiefly in "pieces of a very inferior quality, and evidently the ſame as thoſe "imported by the Spaniards; whereas, had theſe gentlemen been "well in with the coaſt to the northward, they undoubtedly muſt "have met with ſea-otter ſkins of a quality far ſuperior to what "they procured."

After obſerving that La Pérouſe trafficked for otter ſkins, merely in conformity to his orders in Art. ix. of the ſecond part of his inſtructions, and in order to be furniſhed with facts in this branch of commerce, on which to found his report, and that he only diſpoſed of them for the benefit of the ſailors, I ſhall remark, in contradiction to Dixon's aſſertion, that this purchaſe took place at *Port des Français*, in 58 deg. 37 min. N. lat. and therefore La Pérouſe was right in aſſerting that there could not be ten per cent. difference between the ſkins procured at *Port des Français* and thoſe of Monterey.—*French Editor.*

† "Every veſſel was ſupplied with whatever proviſions they "wanted,

amounted to more than 300 piaſtres; after which, being convinced of his knavery, we diſcharged him. Our commiſſary's clerk afterwards went daily to the market, as in any town of Europe, to make the neceſſary purchaſes, and then the expence of a whole month did not equal that of the firſt week.

Probably our œconomy diſpleaſed the Mandarin: but this was mere conjecture, for we had no communication with him. The Chineſe cuſtom-houſes have no tranſactions with Europeans, except concerning the articles of traffic, which come from the interior of China in boats of that country, or are embarked in the ſame boats to be ſold in the interior of the empire. But what we purchaſed at Macao to be brought on board in our own boats, was not liable to any ſearch.

The climate of the road of Typa is at this ſeaſon very changeable, the thermometer varying eight degrees from one day to another, and almoſt all of us had ſevere colds attended with fever. Theſe, however, yielded to the fine temperature of the iſland of Luconia, which we made on the 15th of February. We left Macao on the 5th, at eight in the morning, with a north wind, that would have enabled us to paſs between the iſlands, had I had a pilot. But wiſhing to avoid that expence, which is conſiderable, I followed the uſual track, and went to the ſouthward of the great Ladrone, having taken on board each

" wanted, by an officer called a *comprador*, who always demanded " a *cumſhaw* or gratuity of 300 dollars, excluſive of the profit " which would accrue to him from ſerving us with proviſions.

" A demand of this nature appeared ſo very exorbitant, that we " determined, if poſſible, to avoid it; and a Captain Taſker, " from Bombay, whoſe veſſel lay near ours, kindly offered to fur- " niſh us with beef for the preſent. This, however, could not be " done without caution; for we had a *hoppo*, or cuſtom-houſe " boat on each ſide of the veſſel, with officers on board, who " made it a point to prevent any beef coming on board, unleſs " furniſhed by a comprador." *Dixon's Voyage*, p. 292.—*French Editor.*

ſhip ſix Chineſe ſailors, to replace thoſe we had unfortunately loſt when our boats were wrecked.

This nation is ſo wretched, that, notwithſtanding the laws of the empire prohibit quitting the country, we could eaſily have engaged 200 men in a week, had we been in need of them.

At Macao our obſervatory had been ſet up in the convent of Auguſtins, where we determined the longitude of that city to be 111° 19′ 30″ E. by the mean of ſeveral ſets of lunar obſervations. We had alſo verified the rate of our time-keepers, and found that the daily loſs on mean time of No. 19, was 12′ 36″, which exceeded any deviation we had experienced previous to that period. It muſt, however, be obſerved, that during 24 hours the winding up this time-keeper had been forgotten, and that having thus been ſtopped, the want of continuity in its motion had probably cauſed its derangement. But on the ſuppoſition, that till our arrival at Macao, and previous to the neglect, of which we acknowledge we were guilty, the loſs of time by No. 19 was the ſame as that determined at la Conception, this time-keeper would have given 115° 33′ 33″ as the longitude of Macao, that is 2° 14′ 3″ more than it really is, according to our lunar obſervations. Thus the error of the time-keeper, after ten months navigation, would only have been 45 leagues.

The northerly winds now permitted me to get to the eaſtward, and I ſhould have got ſight of Piedra Blanca, had they not preſently ſhifted to the E. S. E. The information I had procured at Macao, concerning the beſt track to purſue as far as Manilla, had not determined my opinion, whether it was better to go to the northward or ſouthward of Banco de Pratas, and I concluded, from the diverſity of opinions on that point, that one route was as good as the other. The eaſterly winds blowing ſtrong, determined me to ſtand cloſe-hauled upon the ſtarboard tack, and to direct

direct my course to leeward of that bank, which is erroneously laid down on all the charts previous to the third voyage of Captain Cook. Captain King, having determined its latitude with precision, has rendered an important service to the navigators who go coasting voyages from Macao to Manilla. Formerly they followed, with confidence, the chart of Dalrymple, which M. Daprès has also copied. These two authors, who are so estimable and accurate when they constructed plans from their own materials, were not always able to procure the best accounts of individual places, and the situation of the Prata shoal, that of the western coast of the island of Luconia, and of the bay of Manilla, are totally undeserving of confidence. As I was desirous to make the island of Luconia, in lat. 17°, in order to pass to the northward of the bank of Bulinao, I ranged along the Pratas as near as possible, and even, at midnight, passed over the point it occupies on the chart of M. Daprès, who has extended this dangerous shoal 25 miles too far to the southward. The position he has assigned to the banks of Bulinao, Mansiloq, and Mirabella, are not more exact. An ancient custom has taught seamen they have nothing to fear in making their land fall to the northward of 17°, and this observation has appeared sufficient to the governors of Manilla, who have not, during two centuries, found a single moment's leisure to send out a few small ships to reconnoitre these dangers, or even to determine their latitude, together with their distance from Luconia, which we made on the 15th February, in 18° 14′. We flattered ourselves we should then only have to run down the coast with north easterly winds as far as the entrance of the bay of Manilla; but the monsoons did not extend along the land, where the wind was variable between N. W. and S.W. for many days. The currents also set to the northward at the rate of a mile an hour, and till the 19th

February, we did not advance one league a day. At length the north wind freshening, we sailed along the Illoco coast, at the distance of two leagues, and saw a small two masted vessel in the port of Santa Cruz, probably taking in a cargo of rice for China. It was impossible for us to make any of our bearings coincide with the chart of M. Daprès, but our own charts enable us to give the direction of this coast, which is very little known, though much frequented. We doubled cape Bulinao on the 20th, and on the 21st made point Capones, bearing east, directly in the wind's eye. We made several boards to approach it, and gain the anchoring place, which extends but a league from the shore. We saw two Spanish ships which seemed afraid to open the entrance of the bay of Manilla, from whence the easterly winds blow with violence, and therefore kept under the lee of the land. We stretched to the southward of the island of Mirabella, and the wind having chopped about in the afternoon to the E. S. E., we directed our course between this island and that of la Monha, entertaining hopes of entering the north channel. But after having made several boards in the entrance of it, which scarcely exceeds half a league in width, we perceived that the currents set to the westward with considerable strength, and irresistibly opposed our intention. We then determined to put into the port of Mirabella, which lay a league to leeward, in order there to wait either for a fairer wind, or a more favourable current. We anchored there in 18 fathoms water over a muddy bottom, the village bearing N. W. by W., and the Hogs (los Puercos) S. by E. 33° S. This port is only open to the S. W. winds, and there is such good holding ground, that I am of opinion, ships might ride there without the least danger, duringthe monsoons whenever they prevail.

As we wanted wood, which I knew to be extremely dear at Manilla, I determined to pass 24 hours at Mirabella,

Mirabella, to take in a quantity. The next morning at day-break, we ſent our long boats aſhore, with all the carpenters of both ſhips, and at the ſame time, I employed our jolly-boats in ſounding the bay, and reſerved the reſt of the crew with the barge, for a fiſhing party in the creek near the village, which appeared ſandy and commodious for hauling the ſeine. But this was a mere illuſion, and we found rocks there and ſuch a flat bottom two cables' length from the ſhore, that it was impoſſible to fiſh there. We derived no advantage from our labour, except ſome thorny ſea-pies in good preſervation, which we added to our collection of ſhells. Towards noon I went aſhore at the village, which conſiſts of about 40 houſes built of bamboo, covered with leaves, and raiſed about four feet above the ground. Theſe houſes are floored with ſmall bamboos, laid at a diſtance from each other, ſo as to give theſe huts the appearance of bird cages. They are aſcended by a ladder, and I do not believe all the materials of a houſe, including the roof, weigh 200 pounds.

Oppoſite to the principal ſtreet is a large edifice of hewn ſtone, but now almoſt entirely ruined, where, however, we ſaw two braſs guns at the windows, which ſerve as embraſures. We learned that this ruin was the curate's houſe, the church, and the fort, though theſe names had not intimidated the Moors of the ſouthernmoſt Philippine Iſlands, who in 1780 had ſeized it, burned the village, ſet fire to the fort, which they deſtroyed, as well as the church and the parſonage houſe, made ſlaves of all the Indians who had not time to fly, and went off with their captives without the leaſt moleſtation. This event ſo terrified the colony, that they dare not now apply to any ſpecies of induſtry. Almoſt all the land is uncultivated, and this pariſh is ſo poor, that we could only purchaſe a dozen fowls and a ſmall pig. The curate ſold us a young ox, at the ſame time aſſuring us, it was an

eighth

eighth part of the only herd in the pariſh, the lands of which are ploughed by buffaloes.

This prieſt was a young Indian mulatto, who careleſs of its condition, inhabited the ruin I have deſcribed, a few earthen pots and a truckle bed compoſing the whole of his furniture. He informed us, that his pariſh contained 200 perſons, of both ſexes and of all ages, who on the leaſt alarm, take refuge in the woods to eſcape the Moors, who continue to make deſcents on the iſland, and are ſo audacious, and their enemies ſo little on their guard, that they often penetrate to the head of the bay of Manilla. During the ſhort ſtay we afterwards made at Cavita, ſeven or eight Indians were carried off in their canoes, within a league of the entrance of the harbour. We were aſſured that paſſage boats from Cavita to Manilla were often taken by theſe ſame Moors, though the paſſage is nearly the ſame, in all reſpects, as that from Breſt to Landerneau by ſea. They perform theſe expeditions in very light row-boats, and the Spaniards oppoſe to them a flotilla of galleys, which are very bad ſailers, and have never taken any of them.

The next officer to the curate is an Indian, who bears the pompous title of Alcalde, and enjoys the ſupreme diſtinction of carrying a ſilver headed cane. He appears to exerciſe a high authority over the Indians, none of whom could ſell us a fowl, till he granted his permiſſion, and fixed the price. He alſo poſſeſſed the fatal privilege of ſelling for account of the government, tobacco for ſmoaking, of which the Indians make a very great and almoſt continual conſumption. This monopoly has only been eſtabliſhed within a few years, and the pooreſt of the people can ſcarcely bear its oppreſſion. It has already given birth to ſeveral revolts, and I ſhould not be ſurpriſed, if it ſhould one day produce effects ſimilar to thoſe of the taxes on tea and ſtamps in North America. We

ſaw

ſaw at the prieſt's three ſmall antelopes, which he intended for the Governor of Manilla, and which he refuſed to ſell us. Nor, had we made the purchaſe, could we have hoped to preſerve them, as theſe little animals are very delicate, and do not here exceed the ſize of a large rabbit. Both the male and female are preciſely the ſtag and hind in miniature.

In the woods our ſportſmen obſerved the moſt charming birds, variegated with the moſt brilliant colours: but theſe foreſts are impenetrable, on account of the *lianes*, which climb and interweave among the trees. Their excurſion, therefore, was not very productive, as they could only ſhoot upon the ſkirts of the wood. We purchaſed in the village ſome *ſtabbed* turtle-doves; a name originating from a red mark upon their breaſt, exactly reſembling a wound made by a knife.

At length we re-embarked at duſk, and made every preparation for getting under way the next day. One of the two Spaniſh ſhips we had ſeen on the 23d, at Point Capones, had like ourſelves put into Mirabella, to wait for more moderate weather. I ſent to the Captain to aſk for a pilot, when he ſent me his boat-ſwain, an old Indian, who did not inſpire me with much confidence. I agreed, however, to give him 15 piaſtres to carry us to Cavita, and on the 25th at day-break we got under ſail, and ſtood through the ſouth channel, the old Indian aſſuring us it would be in vain to attempt that to the northward, where the currents always ſet to the weſtward. Though the diſtance from the harbour of Mirabella to that of Cavita is only ſeven leagues, we were three days making this little run, and came to an anchor every night in the bay, in a good bottom of mud. We had here an opportunity to obſerve that M. Daprès's plan is very inaccurate, the iſland of Fraïle, and that of Cavallo, which form the entrance of the ſouth channel, being badly laid down there, and in a word the whole is a

mere

more tiſſue of errors. But we ſhould have done better, even to follow that guide, than our Indian pilot, who nearly run us aground on the bank of St. Nicholas. He perſiſted in ſtanding on to the ſouthward, notwithſtanding my repreſentations, and we ſhoaled our water in leſs than a minute from 17 to four fathoms. I immediately tacked, and I am convinced we ſhould have touched, had we ſtood on a piſtol ſhot farther. The water is ſo ſmooth in this bay, that there is not the leaſt appearance of the ſhoals; a ſingle obſervation, however, will render it perfectly eaſy to work into it; you muſt always keep the iſland of la Monha open with the north channel of the iſland of Mirabella, and put about as ſoon as this iſland begins to be ſhut in. At length on the 28th we anchored in the harbour of Cavita, in three fathoms water over a muddy bottom, two cables' length from the town.

Our run from Macao to Cavita was 23 days, and would have been much longer, had we conformed to the cuſtom of the old Portugueſe and Spaniſh navigators, and perſiſted in paſſing to the northward of the Prata ſhoal.

CHAP.

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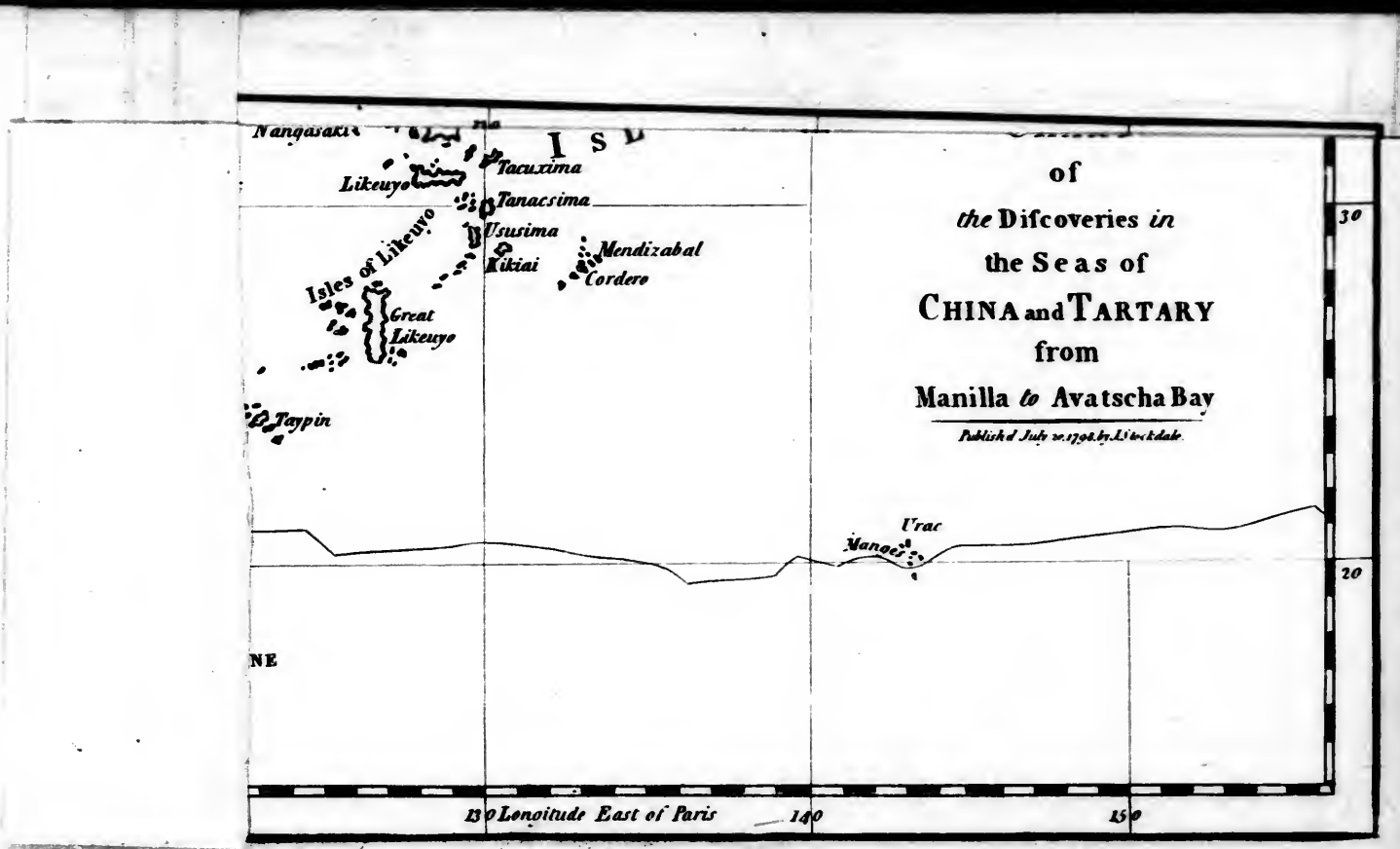
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Manilla to Avatscha Bay
Published July 10 1798 by L Stockdale
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CHAP. XV.

ARRIVAL AT CAVITA—MANNER OF OUR RECEPTION BY THE COMMANDANT—M. BOUTIN, LIEUTENANT DE VAISSEAU, IS DISPATCHED TO THE GOVERNOR GENERAL AT MANILLA—RECEPTION OF THIS OFFICER—DETAILS RELATIVE TO CAVITA AND ITS ARSENAL—DESCRIPTION OF MANILLA AND ITS ENVIRONS—ITS POPULATION——DISADVANTAGES RESULTING FROM THE GOVERNMENT THERE ESTABLISHED—PENANCES, AT WHICH WE WERE PRESENT, DURING PASSION WEEK—IMPOSTS ON TOBACCO—INSTITUTION OF THE NEW PHILIPPINE COMPANY——REFLECTIONS ON THAT ESTABLISHMENT—DETAILS RELATIVE TO THE SOUTHERNMOST PHILLIPPINE ISLANDS—CONTINUAL WARS WITH THE MOORS, OR MAHOMETANS, OF THESE ISLANDS—STAY AT MANILLA—MILITARY STATE OF THE ISLAND OF LUCONIA.

WE had ſcarcely caſt anchor at the entrance of the harbour of Cavita, when an officer came on board from the commandant of that place, to requeſt us not to attempt any communication with the ſhore, till orders arrived from the governor-general, to whom he intended to diſpatch a courier, as ſoon as he was informed of our object in putting in there. We anſwered, that we wiſhed to procure proviſions, and permiſſion to refit our ſhips, in order, as ſpeedily as poſſible, to continue our voyage; but before the officer left us, the commandant of the bay* arrived at Manilla, whence they had deſcried our ſhips. He informed us notice had been received there of our ar-

* The commandant of the bay is, in Spain, the chief of the cuſtom-houſe officers, and has a military rank. At Manilla he has that of captain.

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Saghali
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Nanqasaki
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Ususima
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Mendizabal
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Great Likeuyo
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Babyanes
PHILIPINE ISLES
Luzon
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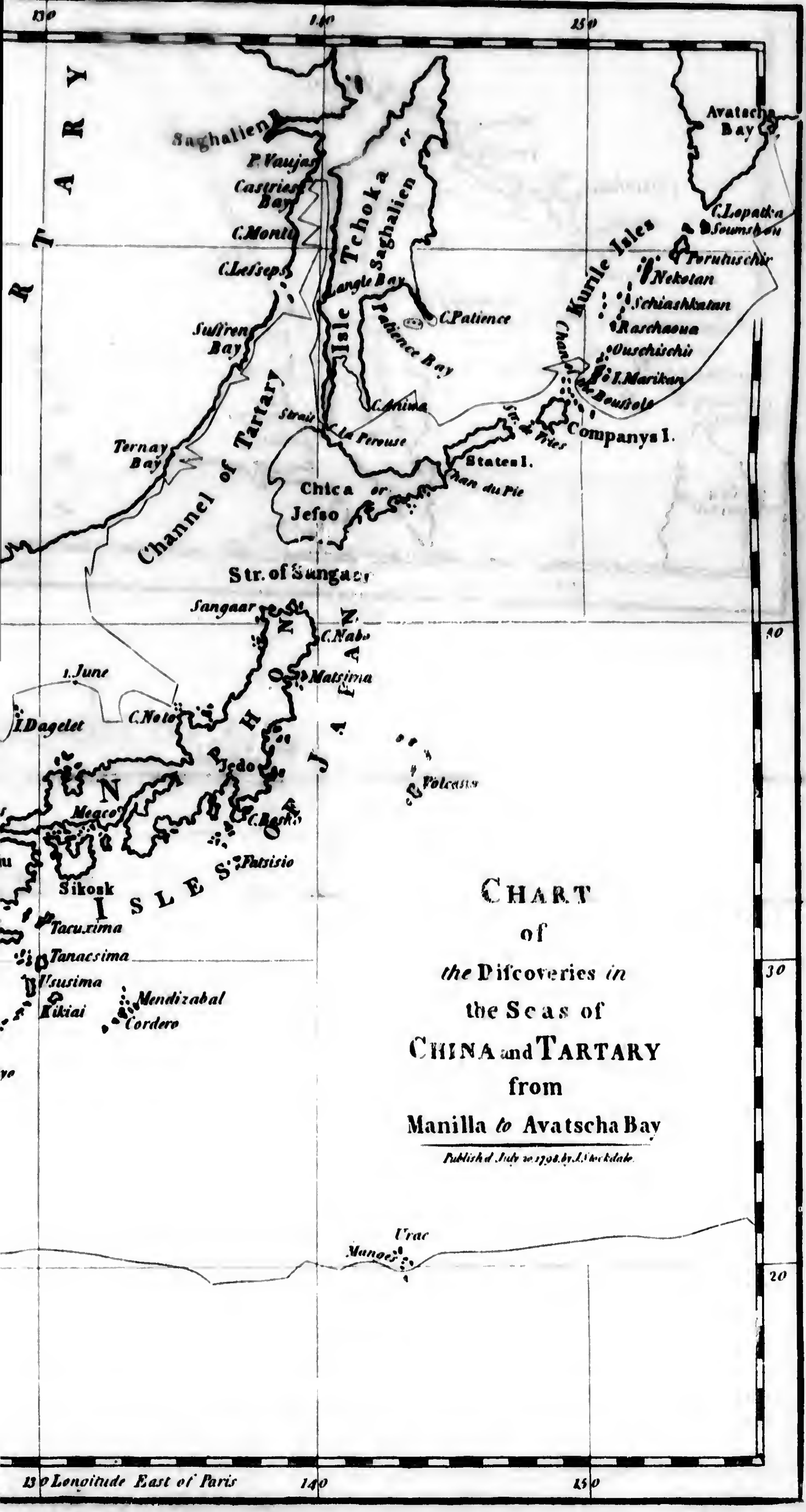
130 Longitude East of Paris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TARTARY
Saghalien
P. Vaujas
Castries Bay
C. Monti
C. Lessepss
Suffren Bay
Ternay Bay
Channel of Tartary
Isle Tchoka or Saghalien
Langle Bay
C. Patience
Patience Bay
C. Anina
Strait
C. la Perouse
Chica or Jesso
Str. of Sangaar
Sangaar
Avatscha Bay
C. Lopatka
Soumshou
Porumuschir
Kurile Isles
Nekotan
Schiashkatan
Raschaoua
Ouschischir
Channel
I. Marikan
Boussole
Companys I.
States I.
Str. de Vries
Chan du Pic
C. Nabo
Matsima
1 June
I. Dagelet
C. Noto
NIPHON
JAPAN
Jedo
Meaco
C. Bosch
Fatsisio
Volcanos
ISLES OF JAPAN
Sikosk
Tacuxima
Tanacsima
Ususima
Kikiai
Mendizabal
Cordero
Urac
Manoes
40
30
20
CHART of the Discoveries in the Seas of CHINA and TARTARY from Manilla to Avatscha Bay
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130 Longitude East of Paris
140
150

rival in the Chineſe ſeas, and that letters from the Spaniſh miniſter had announced us to the governor-general ſeveral months before. This officer added, that the ſeaſon admitted of our anchoring before Manilla, where we ſhould meet with every accommodation, united with every reſource, that could poſſibly be procured in the Philippine Iſlands: but we were lying at anchor before an arſenal, within a muſket-ſhot of the ſhore, and we were ſo impolite as to acquaint this officer, that nothing could compenſate theſe advantages. He readily permitted M. Boutin, one of my lieutenants, to go in his boat, to give an account of our arrival to the governor-general, and requeſt him to give orders that our various wants might be ſupplied before the 5th of April, the ultimate plan of our voyage requiring that our two ſhips ſhould ſail the 10th of the ſame month. Senor Baſco, *brigadier de la armada*, and governor-general of Manilla, gave the officer I ſent to him a handſome reception, and iſſued the moſt poſitive orders that nothing ſhould retard our departure.

He alſo wrote to the commandant of Cavita, to permit us to have free communication with that place, and procure us every aſſiſtance and accommodation in his power. The return of M. Boutin, charged with diſpatches from Senor Baſco, rendered us all citizens of Cavita, and our veſſels were ſo near the ſhore that we could land and return on board every minute. We found various houſes wherein to repair our ſails, ſalt our proviſions, build two boats, and accommodate our naturaliſts and geographical engineers; and the commandant very kindly lent us his own to ſet up our obſervatory. We felt as perfectly at our eaſe as if we had been in the country, and found in the market and the arſenal the ſame reſources, as in the beſt ports of Europe.

Cavita, which lies three leagues to the S. W. of Manilla,

Manilla, was formerly a very conſiderable place; but in the Philippine iſlands, as in Europe, the great towns exhauſt, as it were, the ſmall ones, and there now remain only the commandant of the arſenal, a [illegible], or accomptant, two port lieutenants, the [illegible] of the town, 150 ſoldiers in garriſon, [illegible] officers belonging to that corps.

The other inhabitants are metis*, (a ſpecies of [illegible]), or Indians, belonging to the arſenals; and form together, with their families, which are generally very numerous, a population of about 4000 inhabitants, divided between the town and the ſuburb of St. Roch. There are two pariſhes, and three monaſteries for men, each occupied by two eccleſiaſtics, though thirty might eaſily be accommodated. The Jeſuits alſo had formerly a very fine houſe, of which the trading company, eſtabliſhed by the government, has obtained poſſeſſion. In general, nothing is to be ſeen but ruins; the ancient edifices of ſtone are deſerted or occupied by Indians, who never repair them; and Cavita, the ſecond town in the Philippine Iſlands, and capital of a province of the ſame name, is now only a paltry village, uninhabited by Spaniards, except the military officers, and thoſe of the civil adminiſtration. But if the town preſents only a heap of ruins, it is not ſo with the port, where Senor Bermudas, *brigadier de la armada*, who is commander there, has eſtabliſhed an order and diſcipline, which excite regret that his talents are em[illegible]ed on ſo confined a theatre. All his workmen [illegible] Indians, and he has preciſely the ſame kind of wor[illegible] ſhops as thoſe of our arſenals in Europe. This offi[illegible]cer, who is of the ſame military rank as the gover[illegible]nor-general, conſiders nothing too trifling for his

* The Spaniards and Portugueſe have different names for the various degrees of conſanguinity with blacks. The firſt of theſe is the meti, which implies the half-black, or immediate offspring of a white man with a black woman.—*Tranſlator's note.*

attention;

attention; and his converſation convinced us, that nothing was above the ſphere of his knowledge. He granted every thing we aſked of him with the moſt perfect politeneſs. The ſmiths, block makers, and riggers, were at work ſeveral days for our ſhips. Senor Bernardas anticipated our wiſhes; and his friendſhip was the more flattering, as we judged from his character, that he did not eaſily beſtow it: and this auſterity of his principles had perhaps been injurious to his military advancement. As we could not hope to meet with a more commodious port elſewhere, M. de Langle and myſelf determined completely to overhaul all our rigging, and to ſtrip our lower maſts. This precaution involved no leſs of time, as we were obliged to wait at leaſt a month for our proviſions, a liſt of which we had tranſmitted to the intendant of Manilla.

The ſecond day after our arrival at Cavita, I embarked, together with M. de Langle, for the capital, accompanied by ſeveral officers. We were two hours and a half in making this trip in our boats, which were armed with ſoldiers, on account of the Moors, who frequently infeſt the bay of Manilla. Our firſt viſit was to the governor, who kept us to dinner, and ſent the captain of his guards to conduct us to the archbiſhop, the intendant, and the different *oïdors*. This was not one of the leaſt fatiguing days of our voyage. The heat was extreme, and we were on foot, in a town where the citizens never go out but in a carriage. Here there were none to be hired as at Batavia; and had not M. Sebir, a French merchant, who had by accident heard of our arrival at Manilla, ſent us his chariot, we ſhould have been obliged to decline many of the viſits we intended to make.

The town of Manilla, including the ſuburbs, is very conſiderable. Its population is computed at 38,000, in which are included ſcarcely 1000 or 1200

DRESS of the INHABITANTS of MANILA

DRESS of the INHABITANTS of MANILLA

1200 Spaniards; the reſt are Metis, Indians, or Chineſe, who cultivate all the arts, and purſue every ſpecies of induſtry. The leaſt opulent of the Spaniſh families keep one or two carriages, or more, and a pair of very fine horſes, which coſt thirty piaſtres, and their keep and coachman's wages ſix piaſtres a month. Thus in no country is the expence of a carriage more trifling or more neceſſary. The environs of Manilla are enchanting. The moſt beautiful river meanders through them, branching into various channels, of which the two principal end in that celebrated lagune or lake of Bahia, which lies ſeven leagues up the country, and is bordered by above a hundred Indian villages, ſituated in the midſt of the moſt fertile country.

Manilla is built on the ſhore of the bay of the ſame name, which is more than twenty-five leagues in circumference. It lies at the mouth of a river navigable as far as the lake from which it riſes, and is perhaps the moſt delightfully ſituated city in the world. Proviſions of all kinds are in the greateſt abundance there, and extremely cheap; but cloathing, European hardware and furniture bear an exceſſively high price. The want of competition, together with prohibitions and reſtraints of every kind laid on commerce, render the productions and merchandize of India and China, at leaſt, as dear as in Europe; and this colony, although the various impoſts bring near 800,000 piaſtres annually into the treaſury, coſts Spain 1,500,000 livres beſides, which are ſent there every year from Mexico. The immenſe poſſeſſions of the Spaniards in America have not admitted of the government eſſentially directing its attention to the Philippines, which reſemble the eſtates of thoſe great lords, whoſe lands lie uncultivated, though capable of making the fortunes of many families.

I ſhould not heſitate to aſſert, that a very great

nation, poſſeſſed of no other colony than the Philippine Iſlands, and who ſhould eſtabliſh the beſt government of which they are capable, might behold all the European ſettlements in Africa and America without envy.

Three millions of inhabitants people theſe various iſlands, of whom that of Luconia contains near one third. Theſe people appear in no reſpect inferior to thoſe of Europe. They cultivate the earth like men of underſtanding, are carpenters, joiners, ſmiths, goldſmiths, weavers, maſons, &c. I have walked through their villages, and found them kind, hoſpitable, and communicative; and though the Spaniards ſpeak of and treat them with contempt, I perceived that the vices they attributed to the Indians, ought rather to be imputed to the government they have themſelves eſtabliſhed. It is well known, that the avidity for gold, and the ſpirit of conqueſt, with which both the Spaniards and Portugueſe were animated two centuries ago, induced adventurers of thoſe nations to traverſe the different ſeas and iſlands of both hemiſpheres, with no other view than to ſearch for that precious metal.

Some gold ſanded rivers, and the vicinity of the ſpice iſlands, were no doubt the motives of the firſt ſettlements in the Philippines; but their produce did not correſpond with the hopes that were entertained. To theſe avaricious motives ſucceeded the enthuſiaſm of religion. A great number of miſſionaries, of every order of Monks, were ſent there to preach Chriſtianity, and the harveſt was ſo abundant, that theſe iſlands ſoon contained eight or nine hundred Chriſtians. Had this zeal been tempered by a little philoſophy, that ſyſtem was doubtleſs beſt adapted to ſecure the conqueſts of the Spaniards, and render this ſettlement uſeful to the mother country. But their only object was to make Chriſtians, not citizens. The colony was then divided into pariſhes.

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and ſubjected to the moſt frivolous and extravagant ceremonies. Every fault, every pretended ſin, was puniſhed by a whipping, the abſence from prayer and from maſs were taxed, and the puniſhment inflicted both on men and women at the church door, by order of the curate. Their holidays, their religious confraternities, their private devotions, conſume a very conſiderable portion of time; and as in hot climates the imagination takes a ſtill loftier flight than in more temperate regions, I have, in paſſion week, beheld penitents in maſks, dragging chains through the ſtreets, with their legs and loins ſurrounded with a girdle of thorns; and in this condition, receive at every *ſtation*, before the church door, or before the oratories, ſeveral ſtrokes of the whip, in the way of diſcipline, and in a word, ſubmit to equally rigorous penances with the ſaquirs of India. Theſe practices, more calculated to form enthuſiaſts than to inſpire true devotion, are now prohibited by the Archbiſhop of Manilla; but it is highly probable, ſome confeſſors ſtill recommend, if not enjoin them.

This monaſtic diſcipline not only enervates the mind of theſe people, naturally inactive through the influence of the climate, and the ſmall number of their wants, but perſuading them that life is but a journey, and the good things of it unprofitable, combines with the impoſſibility of ſelling the fruits of the earth for a price that would compenſate their labour, to paralyſe their induſtry. Thus, as ſoon as the inhabitants have the quantity of rice, of ſugar, and of vegetables, neceſſary for their ſubſiſtance, the ſuperflux is of no value whatever. In ſuch circumſtances ſugar has been ſold for leſs than a halfpenny the pound, and rice remained upon the ground without being reaped. It would be difficult for the moſt unenlightened ſociety to form a ſyſtem of government more abſurd, than that which has regulated theſe colonies for the two laſt centuries.

The port of Manilla, which ought to be free and open to all nations, has been, till very lately, ſhut againſt Europeans, and open only to a few Moors, Americans, and the Portugueſe of Goa. The governor is inveſted with the moſt deſpotic authority: and the *Audiencia*, which ought to moderate his power, is totally impotent before the repreſentative of the Spaniſh government. In point of fact, though not by law, it lies in his breaſt to admit or to confiſcate the merchandize of foreigners, whom the hope of advantage may have brought to Manilla, and who would not expoſe themſelves to this riſk, but on the probability of a very great profit, ultimately ruinous to the conſumers. No liberty whatever is enjoyed there. Inquiſitors and Monks direct the conſciences of the people, the *oïdors* overlook all the affairs of individuals, and the governor regulates the moſt innocent amuſements: even an excurſion up the country, or a converſazione, are within his juriſdiction. In a word, the fineſt and moſt charming country in the world, is certainly the laſt a lover of liberty would chuſe for his reſidence. I ſaw at Manilla, that worthy, that virtuous governor of the Marianas, Senor Tobias, rendered too famous for his own repoſe by the Abbé Raynal. I have ſeen him perſecuted by the Monks, who, by repreſenting him as impious, even alienated the affections of his wife, and induced her to demand a ſeparation from him, that ſhe might not live with this pretended reprobate; while every fanatic applauded her conduct. Senor Tobias is lieutenant-colonel of the regiment that forms the garriſon of Manilla; and is acknowledged to be the beſt officer in the country. Yet the governor has decreed that his ſalary, which is very conſiderable, ſhould be paid to his pious wife, leaving him only 26 piaſtres per month, for the ſubſiſtence of himſelf and his ſon. This brave officer, thus reduced to deſpair, was waiting for a proper opportunity

tunity to escape from this colony, in order to demand justice. There is a very wise, but unfortunately an ineffectual law, which ought to have moderated this inordinate power, and by which every citizen is permitted to prosecute the ex-governor before his successor. The latter is, however, interested in justifying every thing his predecessor is reproached with; and the citizen who is imprudent enough to complain, is exposed to new and encreased injustice.

The most galling distinctions are established, and supported with the strictest severity. The number of horses used in carriages is fixed for every rank, and coachmen are bound to give precedence to the superior number; so that the mere caprice of an *oïdor* may detain behind him a whole line of carriages, that have the misfortune of travelling the same road. So many abuses in this government, so many vexations that result from it, have not however totally destroyed the advantages of the climate, and the peasantry display an air of happiness not to be found in the villages of Europe. Their houses are admirably neat, and shaded by fruit trees, which grow spontaneously. The tax paid by each master of a small house, is very moderate, being limited to 5½ reals, including the church dues, which is received by the nation; all the bishops, canons, and curates, being paid by the government. But they have established some perquisites, which compensate the smallness of their stipends.

A dreadful oppression has, however, of late years taken place, and threatens to destroy the little enjoyment allowed them. I mean the tax upon tobacco. Their passion for smoking this narcotic is so immoderate, that there is not a moment in the day when either men or women have not a segar* in their mouth, and children scarcely out of

* A segar (or *cigarro*) is a leaf of tobacco, rolled up, and smoked in lieu of a pipe.—*French Editor.*

their cradle contract the ſame habit. The tobacco of the Iſland of Luconia is the beſt in Aſia. Every inhabitant cultivated it round his houſe for his own conſumption, and the ſmall number of foreign ſhips that had permiſſion to land at Manilla carried it to every part of India.

A prohibitory law however has lately been promulgated, and the tobacco of each individual has been pulled up, and the cultivation of it limited to grounds where it is grown for the benefit of the government. The price has been fixed at half a piaſtre per pound, and though the conſumption is diminiſhed, the daily pay of a workman is inadequate to procure tobacco for himſelf and his family. All the inhabitants agree, that a tax of two piaſtres, added to the capitation tax of thoſe who are liable to it, would have produced to the revenue a ſum equal to that of the ſale of tobacco, without giving birth to the diſorders the latter has produced. Inſurrections have threatened every corner of the iſland, troops have been employed to ſuppreſs them, and an army of cuſtom-houſe clerks and officers employed to prevent ſmuggling, and to compel the conſumers to apply to the national warehouſes. Several of theſe have been maſſacred, though ſpeedy vengeance was inflicted by the tribunals, who paſs judgment on the Indians with much fewer formalities than on the other citizens. There ſtill remains however a leaven of revolt, in which the leaſt fermentation might produce a formidable activity, and it is not to be doubted that an enemy who might entertain projects of conqueſt would find an army of Indians ready to join their ſtandard the moment they ſet foot on the iſland, and furniſh them with arms*. The picture that might be drawn of the

* The Philippines, from their extent, their climate, and the quality of their ſoil, poſſeſs every means of producing all the colonial commodities. They are furniſhed with the precious metals, and their

the ſtate of Manilla a few years hence would be very different from its preſent condition, were the government of Spain to adopt a better conſtitution for the Philippine Iſlands. The ſoil is adequate to the moſt valuable production, 900,000 individuals of both ſexes, who inhabit the iſland of Luconia, might be encouraged to cultivate it, and the climate admits of ten crops of ſilk within the year, while that of China ſcarcely affords a proſpect of two.

their ſituation is moſt advantageous for trading with India and China. An European nation, if eſtabliſhed there on a ſolid foundation, and poſſeſſing a port for an entrepôt and refreſhment on the coaſts of Africa, of Madagaſcar, or in the neighbouring ſeas, might abandon their poſſeſſions in America without the ſmalleſt reluctance. This important property appears however not to be juſtly appreciated by the Spaniſh government. Their apparent indifference ariſes from the difficulty of ſupporting the immenſe weight of their poſſeſſions in the two hemiſpheres, and the impoſſibility of their giving to all of them the ſpecies of activity calculated to draw from them all the aid the mother country would have a right to expect.

The Philippines therefore are not only extremely likely to be coveted by the other maritime powers of Europe, but if the enemies of Spain do not take advantage of the weak ſtate in which they languiſh, they will one day become a prey to the Moors.

When the metallic riches and vegetable productions of the South Sea Iſlands are better known, when new tracks, opened to commerce and navigation ſhall admit of a ſafe and ſpeedy communication to the very centre of this ſea, the importance of the Philippines will be perceived. The Spaniards, who already have a ſettlement in the Baſhee Iſlands, will ſoon have another on the Sandwich Iſlands, although lying ſomewhat to the northward of the track of the galleons; and their poſſeſſions, if ſuffered to encreaſe, will form a kind of chain embracing the whole earth. The Ruſſians will then diſcover all the advantages they may derive from the commerce of the South Sea, and all their maritime views will be directed to the ports of Kamtſchatka.

This ſtate of things however will only continue till the energy of the nations who people that part of the globe ſhall ſet bounds to this impolitic extenſion of territory; till the moment when they ſhall reſume their natural rights, by driving out all the Europeans, in order to carry on a free trade with every nation. But that period is ſtill very diſtant, and before it arrives the Spaniards, as Raynal has predicted, weakened by poſſeſſions, too numerous to be effectually protected, will be ſucceſſively driven from their multiplied ſettlements by ſome more powerful nation.—*French Editor.*

Cotton, indigo, the ſugar-cane, and coffee, grow without cultivation around the footſteps of the inhabitants, who deſpiſe them, and every thing indicates that even ſpices would not be inferior to thoſe of the Moluccas. A perfectly free trade for all nations would enſure a market that would encourage every ſpecies of cultivation, and a moderate duty on all the exports would in a very few years be adequate to all the expences of the government. Religious toleration granted to the Chineſe, together with ſome other privileges, would preſently draw 100,000 inhabitants from the eaſtern provinces of that empire, driven away by the tyranny of their mandarines. If to theſe advantages the Spaniards added the conqueſt of Macao, their ſettlements in Aſia, and the advantages they would derive from them, would undoubtedly exceed thoſe of the Dutch in the Moluccas and at Java. The eſtabliſhment of the new Philippine company ſeems to indicate, that the attention of the government is at length directed towards this part of the world, and they have adopted, though only in part, the ſyſtem of Cardinal Alberoni. That miniſter perceived that Spain, having no manufactures, it would be more politic to enrich the nations of Aſia with her metals than thoſe of Europe, who were her rivals, and whoſe commerce ſhe nouriſhed while ſhe augmented their ſtrength, by conſuming the objects of their induſtry. He was therefore of opinion, that Manilla ought to be an open mart for all nations, and was deſirous to invite the ſhip-owners of the various provinces of Spain to go and load at this market with the cotton or other manufactures of China and the Indies, that were neceſſary for the conſumption of the colonies and of the metropolis.

Cardinal Alberoni however is well known to have poſſeſſed more genius than ſcience; and though he was pretty thoroughly acquainted with Europe, he had not the ſmalleſt idea of the affairs of Aſia. The objects

objects of the greateſt conſumption, both for Spain and her colonies, are thoſe of the Coromandel coaſt and of Bengal; which it is certainly as eaſy to carry to Cadiz as to Manilla, the latter being ſituated at a great diſtance from that coaſt, and its ſeas ſubject to monſoons, which expoſe navigators to loſſes and conſiderable delays. Thus the difference in price between Manilla and India muſt be at leaſt 50 per cent: and if to this price are added the immenſe expences of outfits in Spain for ſo long a voyage, it will be evident that the produce of India, which comes by the way of Manilla, muſt be ſold at very high prices in the part of Europe under the Spaniſh dominion, ſtill dearer in their American colonies, and that the nations, who, like England, Holland and France carry on this trade directly, will always be able to ſmuggle them in there with the greateſt advantage. It is however on this defective ſyſtem that the foundation of the new company has been laid, and, which is ſtill worſe, accompanied by reſtrictions and impoſts rendering it far inferior to the project of the Italian miniſter—ſuch in ſhort, that it appears impoſſible for this company to ſubſiſt four years more, although its privileges have in a manner ſwallowed up the whole commerce of the nation with her American colonies. The pretended fair of Manilla, where the new Company is obliged to provide itſelf with cargoes, is only open to the Indian nations, as if they were afraid to augment the competition of ſellers, or to obtain the cotton manufactures of Bengal at too low a price.

It may alſo be remarked, that theſe pretended Mooriſh, or American ſhips from Goa, only bring Engliſh goods; and as theſe modes of diſguiſing them are attended with additional expences, this falls ultimately on the conſumer. Thus the difference between the price in India, and that of Manilla, no longer continues at 50 per cent, but has riſen to 60 and

and even to 80. With this error is combined, that of the exclusive right of the Company, to purchase the productions of the island of Luconia, whose industry not being excited by a competition of buyers, will ever continue in the inert state, to which it owes its insignificance for the two last centuries. Many other authors have spoken of the civil and military government of Manilla, I therefore thought it my business, to make the reader acquainted with that city, under the new point of view, which the establishment of this new Company has perhaps rendered interesting, particularly in an age, when all men who are to hold an elevated rank in the state, ought to understand the theory of commerce.

The Spaniards have some settlements in the various islands to the southward of Luconia; but they seem only to be on sufferance there, and their situation in Luconia does not induce the inhabitants of the other islands to acknowledge their sovereignty. On the contrary, they are always at war with them. These pretended Moors, of whom I have already spoken, and who infest their coasts, making very frequent descents, and carrying into captivity the Indians of both sexes, who are under the Spanish yoke, are the inhabitants of Mindanao, Mindoro, and Panay. They acknowledge no authority but that of their respective princes who are called Sultans, with as little propriety, as these people are called Moors. In fact they are Malays, and have embraced Mahometism, nearly at the same period that Christianity began to be preached at Manilla. The Spaniards have denominated them Moors, and their sovereigns Sultans, in consequence of the identity of their religion, with that of the nations of the same name in Africa, who have for so many centuries been at enmity with Spain. The only military establishment of the Spaniards, in the southern Philippines, is that of Samboangan in the island of Mindanao, where they keep a garrison of

of 150 men, under the command of a miltary Governor, who is appointed by the Governor General of Manilla. In the other iſlands are only a few villages, defended by bad batteries, ſerved by militia, and commanded by Alcaydes, nominated by the Governor General, but eligible from all claſſes of citizens, who are not ſoldiers. The real maſters of the various iſlands, where theſe Spaniſh villages are ſituated, would ſoon deſtroy them, had they not a very important intereſt in their preſervation. Theſe Moors, though at peace when at home in their own iſlands, fit out veſſels to commit piracies on the coaſt of Luconia, and the Alcaydes purchaſe a very great number of the ſlaves made by theſe pirates, which ſaves them the trouble of carrying their priſoners to Batavia, where they would obtain a much lower price. Theſe particulars pourtray the weakneſs of the government of the Philippines, better than all the reaſonings of the various navigators, who have viſited them. The reader will perceive, that the Spaniards are not ſtrong enough to protect the commerce of their vaſt poſſeſſions, and all the benefits conferred by them on the natives, have hitherto had no other object, than their happineſs in a future life.

We ſtaid but a few hours at Manilla. The Governor having taken leave of us immediately after dinner, to take his ſieſta or afternoon nap, we were at liberty to viſit M. Sebir, who rendered us the moſt eſſential ſervices during our ſtay in the bay of Manilla. This French merchant, the moſt enlightened of our countrymen, whom I have met with in the ſeas of China, had imagined, the new Philippine Company, and the intimacy of the cabinets of Madrid and Verſailles, would procure him the means of extending his ſpeculations, which were cramped by the reeſtabliſhment of the French Eaſt India Company. He had conſequently ſettled all his affairs at Canton, and at Macao, where he had been many years eſtabliſhed,

liſhed, and had formed a houſe of trade at Manilla, where he alſo ſolicited the deciſion of a very important law-ſuit, in which one of his friends was concerned; but he already perceived, that the prejudices againſt foreigners, and the deſpotiſm of the adminiſtration, would be inſuperable obſtacles to the accompliſhment of his wiſhes, and at the time of our arrival, he propoſed rather to wind up all his affairs, than to encreaſe their ramifications.

We returned to our boats at ſix in the evening, and got on board our ſhips at eight; but being apprehenſive, that while employed in repairing our ſhips at Cavita, the biſcuit and flour contractors, &c. would make us the victims of the inactivity, ſo general among merchants of that nation, I thought it neceſſary, to order an officer to reſide at Manilla, and every day to viſit the various agents, to whom the Intendant had introduced us. I made choice of M. de Vaujuas, one of the lieutenants of the Aſtrolabe. That officer, however, ſoon wrote me, that his ſtay at Manilla was uſeleſs, as Don Gonzalo Carvagnal, Intendant of the Philippines, was ſo careful of our intereſt, that he went round every day himſelf, to watch the progreſs of the workmen employed for our ſhips, and that his vigilance was equally active, as if he had been himſelf engaged in the expedition. His obliging and ready attention, demand a public teſtimony of our gratitude: His cabinet of natural hiſtory was thrown open to our naturaliſts, to whom he preſented a part of his collection, in the animal, getable, and mineral kingdoms, and at the moment of our departure, I received from him a complete double collection of ſhells found in the Philippine ſeas. Thus his deſire to ſerve us, extended to every thing that could be intereſting to us.

A week after our arrival at Manilla, we received a letter from M. Elſtockenſtrom, the principal ſupercargo of the Swediſh Eaſt India Company, appriſing us,

us, he had ſold our otter ſkins for 10,000 piaſtres, and giving us permiſſion to draw for that ſum. I was very deſirous to procure this money at Manilla, in order to diſtribute among the ſailors, who having left Macao without receiving it, were apprehenſive their hopes would never be realized. M. Sebir had at that time no remittance to make to Macao, and we had recourſe to Don Gonzalo, to whom every thing of this nature was entirely foreign, but who made uſe of the influence his amiable character procured him, over the various merchants of Manilla, to induce them to diſcount our bills: and the produce was divided among the ſailors previous to our departure.

The great heats of Manilla now began to produce ſome bad effects upon our crews, and ſome of the ſailors were attacked with colics, which were not, however, attended with ſerious conſequences. But Meſſrs. de Lamanon and Daigremont, who had brought ſome ſymptoms of dyſentery from Macao, cauſed probably by a checked perſpiration, in lieu of finding relief on ſhore, grew worſe there, inſomuch that M. Daigremont was given over the 23d day after our arrival, and died on the 25th. This was the ſecond perſon who died on board the Aſtrolabe. We had not experienced any ſimilar misfortune on board the Bouſſole, although, perhaps, in general, our crew had enjoyed an inferior ſtate of health to that of the Aſtrolabe. It muſt, however, be obſerved, that the ſervant who died during our run from Chili to Eaſter Iſland, was conſumptive when he came on board, and M. de Langle only yielded to the requeſt of his maſter, who flattered himſelf that the ſea air and warm climates would effect his cure. As to M. Daigremont, in ſpite of his phyſicians, and unknown to his friends and companions, he tried to cure himſelf with burnt brandy, pimento, and other medicines, which the moſt robuſt could not have withſtood; and he fell a victim to his own imprudence, and the dupe of the too high opinion

opinion he entertained of the ſtrength of his conſtitution.

On the 28th of March all our labours at Cavita were finiſhed; our boats built, our ſails repaired, the rigging overhauled, our ſhips completely caulked, and our ſalt proviſions barrelled up. This laſt operation we were unwilling to entruſt with the agents at Manilla, as we knew the ſalt proviſions of the galleons never kept ſweet three months; and our confidence in the method practiſed by Captain Cook was very great. A copy of the proceſs, uſed by Captain Cook, was therefore given to each ſalter, and we ſuperintended this new ſpecies of labour ourſelves. We had on board both ſalt and vinegar from Europe, and we only purchaſed pigs of the Spaniards, and theſe at a very moderate price.

The opportunities of communication between Manilla and China were ſo frequent, that we received news from Macao every week. By theſe we learned, with the greateſt aſtoniſhment, the arrival of la Réſolution under the command of M. d'Entrecaſteaux, and la Subtile frigate, under that of M. la Croix de Caſtries, in the river of Canton. Theſe ſhips had left Batavia when the N. E. monſoon was in full force, had run to the eaſtward of the Philippines, coaſted New Guinea, traverſed ſeas that are full of ſhoals, without even having a chart of them on board, and after a navigation of 70 days, were at length arrived at the mouth of the river of Canton, where they anchored the day after our departure. The aſtronomical obſervations they made during this voyage will be extremely important towards the knowledge of theſe ſeas, always open to ſhips that have miſſed the monſoon; and it is very aſtoniſhing, that our Eaſt India Company ſhould make choice, for the command of the ſhip which loſt its voyage this year, of a Captain who was totally ignorant of this track.

At Manilla I received a letter from M. d'Entrecaſteaux,

teaux, informing me of the motives of his voyage; and preſently after la Subtile frigate brought me further diſpatches.

M. la Croix de Caſtries, who had doubled the Cape of Good Hope in company with the Calypſo, brought us the news of Europe. But theſe news were dated the 24th of April, and we had an interval of a whole year to regret in unſatisfied curioſity. Nor had our families and friends taken this opportunity to write to us; and in the ſtate of tranquillity which Europe enjoyed, our intereſt in its political events was comparatively feeble, to that which agitated our individual hopes and fears. It afforded us, however, an additional opportunity to convey letters to France. La Subtile was ſo well manned, as to permit M. la Croix de Caſtries partly to repair the loſs of ſoldiers and officers we had ſuffered in America. He transferred to each of our ſhips an officer and four men. M. Guyet, *enſeigne de vaiſſeau*, came on board the Bouſſole, and M. de Gobien, *garde de la marine*, on board the Aſtrolabe. This recruit was very neceſſary, as we had eight officers leſs than at our departure from France, including M. de Saint-Ceran, whoſe impaired ſtate of health obliged me to ſend him to the Iſle of France, on board la Subtile, as all the ſurgeons declared it impoſſible for him to continue the voyage.

In the mean while our proviſions were put on board at the time we had previouſly fixed; but Paſſion-week, which ſuſpends all buſineſs at Manilla, occaſioned ſome delay in our individual wants, and I was obliged to fix my departure for Eaſter Monday: for the N. E. monſoon being ſtill very ſtrong, a ſacrifice of three or four days could not be injurious to our expedition. On the 3d of April we got all our aſtronomical inſtruments on board. M. Dagelet had not, ſince our departure from France, met with a more commodious ſpot for aſcertaining, with preciſion, the rate of the time-keeper, No. 19, having erected our obſervatory

ſervatory in the Governor's garden, about 120 toiſes from our ſhips. The longitude of Cavita, deduced from a great number of lunar obſervations, was 118° 50′ 40″ eaſt*, and its latitude, taken with a quadrant of three feet radius, 14° 29′ 9″ north. Had we determined its longitude, according to the daily loſs, attributed at Macao to our time-keeper, No. 19, it would have been 118° 46′ 8″, that is 4′ 32″ leſs than the reſult of our lunar obſervations.

Before we ſet ſail, I thought it my duty to go with M. de Langle, to make our acknowledgments to the governor-general, for the diſpatch with which his orders had been executed; and ſtill more particularly to the intendant, from whom we had experienced ſo many marks of politeneſs and friendſhip. Having diſcharged theſe duties, we both took advantage of a reſidence of forty-eight hours at M. Sebir's, to viſit, either in a boat or a carriage, the environs of Manilla. Though we ſaw no ſuperb houſes, parks, or gardens, yet Nature unadorned is here ſo beautiful, that a ſimple Indian village on the bank of the river, or a houſe in the European ſtyle, ſurrounded by a few trees, afford a view far more picturesque than that of our moſt magnificent manſions; and the coldeſt imagination cannot avoid pourtraying to itſelf undiſturbed happineſs ſmiling amidſt this delightful ſimplicity. Almoſt all the Spaniards are accuſtomed to quit their town reſidence immediately after Eaſter, and to paſs the ſeaſon of the ſcorching heats in the country. They have not attempted to embelliſh a country, which has no need of the aids of art. A neat and ſpacious houſe, built on the edge of the water, and furniſhed with the moſt commodious baths, though deſtitute

* See the explanation of the method of taking longitudes, in the tables of the routes of our ſhips, from Manilla to Kamtſchatka, given by M. Dagelet, and inſerted at the end of the ſecond volume. —*French Editor.*

of

of viſtas, avenues, or gardens, and only ſhaded by fruit trees, forms the dwellings of the richeſt citizens; and this country would be one of the moſt charming ſpots in the world to live in, if a milder government and fewer prejudices rendered the civil liberty of the inhabitants more ſecure. The fortifications of Manilla have been augmented by the governor-general, under the direction of Senor Sauz, a ſkilful engineer; but the garriſon is far from numerous, and conſiſts, in time of peace, of a ſingle regiment of infantry, compoſed of two battalions, each comprehending a company of grenadiers, and eight of fuſileers: the two battalions forming together a body of 1300 effective men. In this regiment, which is compoſed of Mexicans, all the ſoldiers are of the colour of mulattoes, and it is aſſerted they are not inferior, either in valour or intelligence, to European troops. There are alſo two companies of artillery, commanded by a lieutenant colonel, each compoſed of 80 men, whoſe officers are a captain, a lieutenant, an enſign, and a ſupernumerary; three companies of dragoons who form a ſquadron of 150 horſe, commanded by the oldeſt of the three Captains, and laſtly, a battalion of 1200 militia, formerly raiſed and paid by a very rich Chineſe Meti, named Tuaſſon, who was ennobled. All the ſoldiers of this corps are Chineſe Metis, do the ſame duty in the town as the regulars, and now receive the ſame pay, but they would be of little uſe in war. In caſe of need 8000 militia might be raiſed in a very ſhort time, divided into provincial battalions, and commanded by Eropean officers. Each battalion has a company of grenadiers. One of theſe companies has been diſciplined by a ſerjeant, taken from the regiment at Manilla; and the Spaniards, although more prone to decry than panegyriſe the valour and merit of the Indians, aſſert that this company is in no reſpect inferior to the regiment of Europe.

2.5
2.2
2.0
1.8
1.1
1.0

The little garriſon of Samboangan, in the iſland of Mindanao, is not taken from that of the iſland of Luconia. Two corps, of 150 men each, have been formed for the Mariana Iſlands, and for that of Mindanao, and theſe corps are invariably appropriated to thoſe colonies.

END OF VOL. I.