

The British mariner's directory and guide to the trade and navigation of the Indian and China seas. Containing instructions for navigating from Europe to India and China. And from port to port in those regions, and parts adjacent: With an account of the trade, mercantile habits, manners, and customs of the natives / [Hattie Maen Elmore].

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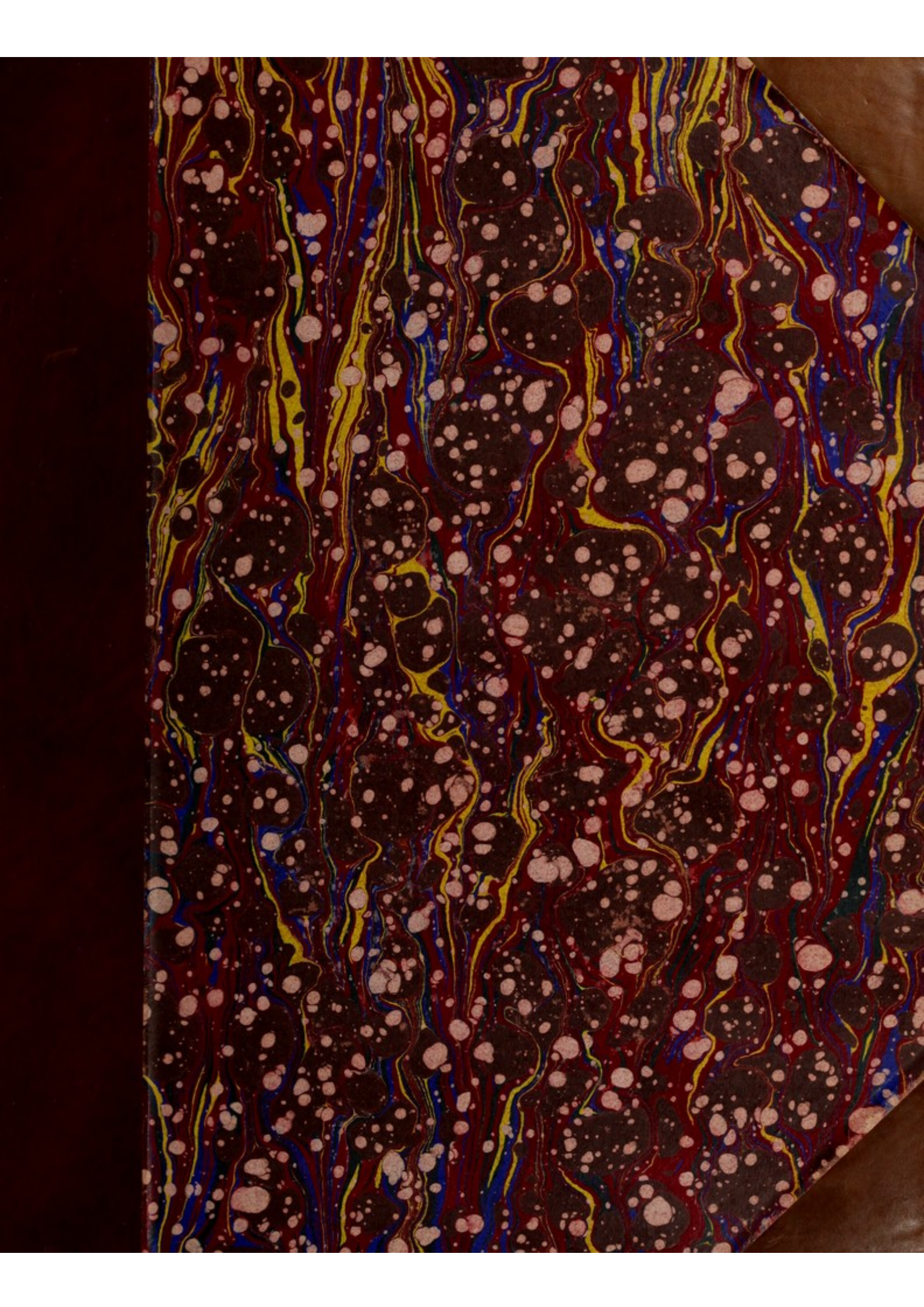
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Whitty
Under the Patronage of the Hon. East India Company.

THE BRITISH MARINER'S
DIRECTORY AND GUIDE
TO THE
TRADE AND NAVIGATION
OF THE
INDIAN AND CHINA SEAS.

CONTAINING
INSTRUCTIONS FOR NAVIGATING FROM EUROPE TO INDIA AND
CHINA, AND FROM PORT TO PORT IN THOSE
REGIONS, AND PARTS ADJACENT:

WITH AN ACCOUNT OF THE TRADE, MERCANTILE HABITS, MANNERS, AND CUSTOMS
OF THE NATIVES.

By *H. M. ELMORE,*

MANY YEARS A COMMANDER IN THE COUNTRY SERVICE IN INDIA, AND LATE
COMMANDER OF THE VARUNA EXTRA EAST INDIAMAN.

LONDON:

PRINTED BY T. BENSLEY, BOLT-COURT, FLEET-STREET;
AND SOLD BY BLACKS AND PARRY, NO. 7, LEADENHALL-STREET.

1802.

THE
DIRECTOR AND GUIDE

Entered at Stationers' Hall.



TO

HUGH INGLIS, Esq. CHAIRMAN;
DAVID SCOTT, Esq. DEPUTY;

AND THE OTHER DIRECTORS OF THE HONOURABLE EAST INDIA
COMPANY, FOR THE YEAR 1800, viz.

Sir FRANCIS BARING, Bart.

JACOB BOSANQUET, Esq.

JOSEPH COTTON, Esq.

Sir LIONEL DARELL, Bart.

WILLIAM DEVAYNES, Esq.

SIMON FRASER, Esq.

CHARLES GRANT, Esq.

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GEORGE TATEM, Esq.

GEORGE WOODFORD THELLUSSON, Esq.

ROBERT THORNTON, Esq.

WILLIAM THORNTON, Esq.

SWENY TOONE, Esq.

Honourable Sirs and Gentlemen,

THE Patronage which you were pleased to bestow on my Work, demands from me the most grateful acknowledgements. Accustomed to munificent and liberal acts, no praise of mine can be wanting to confirm the reputation the Honourable Court has acquired, in giving at all times its ready assistance to bring forward whatever may tend to the extension of science or the propagation of useful knowledge.

In the present instance, I trust that I may be excused in observing, that, on the safe navigation of the Indian and China Seas, and the commerce attached to it, depends, in a great measure, the mercantile prosperity of the Company; and that I have paid the greatest attention to those important objects, the following sheets will afford convincing proofs.

May

May I be emboldened to hope, that, if what I have written, on a subject of so much moment to your concerns, should have the good fortune to merit your approbation, I may look forward with pride and pleasure to your future consideration and support?

I have the honour to subscribe myself with great respect,
Honourable Sirs and Gentlemen,

Your most obedient,

and very devoted,

humble servant,

H. M. ELMORE.

*No. 16, Burr Street,
30th March 1802.*

ADVERTISEMENT.

THE Author, conscious of his own inability, deems it necessary to inform the Public, that these Instructions were not originally written with a view of being laid before them; but, having shewn them to some friends, who spoke highly of their merit, he has, with some reluctance, complied with their request, of presenting them in the shape of a publication.

Should the least possible advantage to Navigation in general (to this Country and the Honourable East India Company in particular) be derived from them, he will consider himself amply rewarded. He could wish, however, that this task had been undertaken by some person more capable of performing it in the manner which the subject deserves. And, to confess the truth, it was chiefly to prevent these Remarks, Instructions, and Observations from being lost, that he has, unwillingly, ventured to undertake the publication of them, under an impression that the experience of sixteen years actual service would be sufficient to stamp their correctness and authenticity.

The Author has to observe, that he has no apprehension of incurring blame from any one for preserving these valuable Instructions. They will discover to every navigator the Author's own experience on such subjects: and there can be very few to whom they will not impart many important facts, which they would not, perhaps, have been able to derive from another source.

There is one circumstance attending publications of this nature, which is, that the sale of the work can never sufficiently reimburse the Author for his labour. But this he does not regret, as he looks for remuneration from the services he is capable to render in the line of his profession. It is favourable to society that commercial advantage generally attends discovery, which encourages mankind to persevere; and it is by this means that so many useful voyages and travels are given almost gratuitously to the public.

The following work is so general and extensive, and the execution of it required so much information, assiduity, and attention, that those who may be the most inclined to encourage the undertaking will very naturally inquire, Whether the man, who thus boldly promises, be sufficiently qualified to perform? To this the Author can only answer, that he had written and prepared this work during his residence in India, and had long made the subjects of it his peculiar study. Without, therefore, arrogating any superiority of talents, he thinks it would be unworthy of the Patronage he is honoured with, and that

kindness

kindness expected from a generous Public, as well as deficient in duty to himself and to his Country, was he to permit a timid supposition of incapacity to deter him from doing what he deems so beneficial to society in general, and to the speculative British inhabitants of India in particular.

Under the foregoing reflections, the Author begs leave to observe, that the politics and commerce of Asia in general, and of Hindoostan in particular, interesting in all ages to the enlightened nations of Europe, have, in the course of the last century, attained a degree of importance infinitely greater than even the most sanguine could possibly have expected. This country in particular, by the wisdom of its legislators, the enterprising spirit of its merchants, and the knowledge and intrepidity of some distinguished characters, has acquired a vast dominion in the fairest provinces of Asia, and in the most fertile region of the earth. Besides her late acquisitions of the Mysore country, her valuable possessions on the peninsula of India, and the island of Ceylon, she now holds the sole and undivided sovereignty of Bengal and Bahar; a tract of country considerably larger than France, and inhabited by thirty millions of civilized people.

From all these circumstances, and particularly at the present crisis, independently of the work as a Directory to facilitate the navigation in the Indian Seas, the Observations, to which some of the Instructions as a guide to trade refer, are expected to be of use to the Commanders, Officers, and Purfers, of the Honourable

Company's ships in general, but more particularly to the British Merchants, Commanders, and Officers, of the trading country ships.

The Author esteems himself extremely fortunate in being honoured with the patronage of the first commercial body in the world; and he trusts that it will give to his work additional value, when he acquaints navigators, that a part of it was submitted by the Court of Directors to their Committee of Shipping, accompanied by the following Address to the Court, and which received their perfect approbation.

From all these circumstances, and particularly at the present crisis, independently of the work as a Directory to facilitate the navigation in the Indian Seas, the Observations, to which some of the Instructions as a guide to trade were, are expected to be of use to the Commanders, Officers, and Partners, of the Honourable

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To the Honourable the Chairman and Court of
Directors of the East India Company.

Honourable Sir and Sirs,

At the conclusion of the war in the year 1783, I quitted his Majesty's navy, and went to Calcutta, Fourth Mate of your Honourable Court's hired packet *The Surprise*, where, she being discharged from your service, I went into the country trade, and continued until the year 1796. At this period I was appointed to the command of your Honourable Court's freighted ship *Varuna*; and having delivered the Company's cargo in this country, and returned to Calcutta, I there resigned the command of that ship.

During my continuance in India I was actively employed in my profession; and observed, with much concern, the deficiency in the printed Instructions for sailing from port to port in that country.

I applied, with much care, to make remarks, write directions, fix accurately the latitudes and longitudes of such places as I had opportunities of doing; and at much trouble to collect such remarks,

directions, and instructions, from the best authorities, as would enable me to improve the then extant Directory.

I have now, with much care and application, collected a number of remarks and instructions, which I conceive will be highly beneficial to the more ready and safe navigating in the Indian and China Seas, particularly the West Coast of Sumatra, Straits of Macassar, Malacca, Banca, Durian, and the China Sea; as well for the use of the Honourable Company's as for the Country Ships.

I beg your Honourable Court will permit me to have the honour of dedicating my Remarks to you, under whose influence they will be protected, and meet the encouragement, I trust, they will be found to deserve.

The Latitudes and Longitudes, determining the exact situations of places in India, were so well known to be correct, that I was told your hydrographer, Mr. A. Dalrymple, wrote to India for them, in the year 1797; but the application was never made to me, or I would readily have complied with the request, and trusted to the known liberality of your Honourable Court for a remuneration of my labours.

I beg leave to observe, that my Instructions for navigating the Indian and China Seas are allowed to be, by those who have used them, extremely correct, and of great use in navigating those seas; and I have by my own experience proved them.

Any

Any number of copies of my intended publication your Honourable Court thinks proper to order, shall be delivered to your Secretary, from the first impressions.

I have the honour to be, Honourable Sir and Sirs, with the greatest respect,

Your most dutiful,

faithful, and obedient,

humble servant,

H. M. ELMORE,

Late Commander of the Honourable Company's
freighted ship Varuna.

No. 2, Gloucester Place,
New Road, Mary-le-bone, London,
December 15, 1800.

MEMORANDUM accompanying the MS. sent in with the above Address, and referred to the Committee of Shipping by the Court of Directors.

“ By comparing the few plain Rules, I have the honour to transmit as a specimen of my intended Work, with these already published, for entering the river Hoogly; or by taking the opinion of any of the Commanders of the Honourable Company's ships who have used Bengal; or that of any of the Company's pilots for the river Hoogly; I stake the merit of my Publication.”

RESOLUTION OF THE COURT.

At a Court of Directors, held on Wednesday the
1st of April 1801,

RESOLVED,—That this Court subscribe for Forty Sets of Captain
H. M. Elmore's Directions for Navigating in the
Indian Seas.

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P R E F A C E.

AS nations have advanced in civilization, so has discovery and nautical knowledge been encouraged and rewarded. The Spaniards and Portuguese laid the foundation of our acquaintance with the Indian Ocean and the China Seas.—The French, too, have done much in adding and correcting our Navigation Charts; but the commercial world in this respect stands more indebted to the British mariner than to any other class of that valuable description of mankind.

In proportion as improvements have been made in navigation, in the like manner has enterprize been promoted, and new sources of commerce have been discovered.—Great pains have in general been taken to point out the advantages which may be naturally expected to flow from such discoveries. But in that range which it has been the good fortune of the Author to explore, very few accounts, that are in any shape digested, have been presented to the Public.

The nautical part has been hitherto given in a loose unconnected way, unsatisfactory, and in many places erroneous. In regard to the trade, nothing has been yet said to give the Merchants of this country any adequate idea of
its

its importance or value. Free Merchants or individual traders, proceeding to India from Great Britain, have every thing to learn; and information can only be obtained by the experience of many voyages.

The Author has it in view, in the following Work, to correct the errors of former navigators; to fix new positions; to point out dangers hitherto unknown; and to instruct the unexperienced in what manner, and at what seasons, to perform his voyages in those seas on which he treats.

Neither are these the only benefits to be derived from this Publication. The East India Company have, with becoming liberality, given considerable encouragement to the country trade of India, or that which is carried on between the principal ports of British India and surrounding nations to the eastward of the Cape of Good Hope. These speculations have been hitherto confined to the eastern hemisphere, and to the capital of merchants settled in that quarter of the globe. The reason of this must appear obvious to the most indifferent observer, viz. the restrictive clause in the Company's charter, in regard to their trade, which permits of no intercourse, independently of that Company, between this country and those to the eastward of the Cape. The expediency of this measure, debarring *in toto* the use of British capital, when the scarcity of specie in India is considered, is a subject which the Author leaves to abler

abler hands. But it has never been denied, that the most solid advantages to British India, and even to the prosperity of the Company itself, more especially since the year 1780, the period when Hyder Ally's invasion of the Carnatic threatened the existence of their possessions on the Coast of Coromandel, have been derived from the exertions of the Free Merchants residing in India, under the protection of the East India Company.

The capital and shipping of the Free Merchants have been uniformly employed, during the most momentous epochs, in supplying the armies of the Company with provisions in times of scarcity, and in transporting troops and military stores from one settlement to another. From their exertions additional energy has been given to operations the most distant from the resources of government, the most successful termination has crowned the general effort of all ranks and degrees; and British pre-eminence in India stands now unrivalled.

To multiply and encourage the Free Traders of that country becomes, therefore, a principle of political economy, consolidating the power of the East India Company. Their success abroad depends on the Company, and which can only be promoted by a thorough knowledge of the nature and advantage to be derived from the trade which it is meant they should embrace and cherish.

The following remarks and observations will point out clearly and concisely all the facilities and vigor which can be given to the commerce in question. By this means it may be expected that shoots or branches of British mercantile houses may in time be established in the Company's settlements, and by their knowledge, application, and capital, unite more firmly the reciprocal interests of both countries *.

In contemplating certain minutiae which have fallen under the Author's particular observation, he begs to remark, that, in the Instructions for Navigating the West Coast of Sumatra, particular attention has been paid, and much application bestowed, to find out, if possible, every danger with which that coast abounds. Where so many shoals of coral rocks exist, it cannot possibly be supposed to have no other dangers than what are described in this Publication; for there is scarcely any part of India which requires a particular survey more than the West Coast of Sumatra.

The Honourable Company's ships, from Bengal to Bencoolen, are in continual danger if they make free with that coast. The consequence is, they are under the necessity of

* The Author understands that it has been recommended to the banking-house of Messrs. Hammerleys, Pall-Mall, whose correspondence is already so generally established over our own continent, to fix a branch of this concern in Calcutta, for supplying passengers to Europe with their circular exchange notes; and for the remittance of money by bills at short dates, and without risk.

keeping a good offing until they are to the southward of the islands, and then haul in to make a landfall. The loss of the Honourable Company's ship *Foulis*, Captain Blatchford, has been an additional spur to the Author's attention, and for using every method to gain information of any newly-discovered danger which may appear to the Commanders who are constantly trading in that quarter.

The Table of Latitudes and Longitudes, the Author believes to be as accurate as any which have been laid down; and many, which have never hitherto been noticed, are principally from his own observations. It may be observed in this place, that, though in the same ship, and with the same instrument, few men can be found to agree, even in the meridian altitude of the sun; some setting the limb closer, some wider than others; it therefore cannot be supposed but in lunar observations, (where every mile of error upon the instrument, in taking the distance of the sun and moon's, or moon and stars' limbs, makes, when the distance is cleared of the effect of parallax and refraction, a difference of fifteen miles or upwards in longitude,) that every observer, in future, will agree exactly with those already laid down, though at the same time they cannot differ very widely. It was well known while the Author was in India, that he was extremely choice, and went to great expence, in chronometers, instruments, &c. And he will venture to affirm, that his ship was allowed, at all times, to be a pattern for the others in the country trade of India.

After all that has been done, conscious there is much more to do, he seeks his apology and consolation in the line of the Poet,

“ To err is human, to forgive divine.”

INTRODUCTION.

INTRODUCTION.

NO period of our history is better calculated to elucidate the powerful effects of commerce than the present.

The vast efforts made by this country in the preservation of the liberties of Europe, have flowed from the wisdom of our financial regulations, the rigid application of public money, and the great and still growing resources of our commercial arrangements.

To preserve that commerce, which has exalted the reputation and increased the riches of the country to a pitch unexampled, should be the steady aim of our legislators. But, as present possession is not a pledge of future enjoyment, it never should be forgotten, that great and unparalleled success, in any country, excites jealousy and envy in every other.

The powers of Europe, relieved from the calamities of a long disastrous war, will now return to the habits of industry, and they will regard India as the most ample range for general commerce. The inexhaustible resources of that country have in all ages awakened the avidity of mercantile nations; and we behold, in India and China, productions, natural and artificial, sufficient to supply the wants of all the world. To retain, therefore, our share of the lucrative branch of commerce, or as much of it as our capital and situation entitle

title us to do, is the object we have in view. But, in order to do this, we must examine, not only into the interests and probable designs of surrounding nations, but into the moral principles of mankind, so far as it may regard a commercial system; since a new order of things have been established, and that the French revolution has laid a foundation for political intrigue, on a new and unheard-of basis.

It is a fact well known, that, to establish a new French East India Company, with territorial revenue, was the favourite object of the old French monarchy. To give efficacy to this measure Anquetil du Peron, a man not unknown to the literati of Europe, was dispatched by the Academy of Sciences at Paris, in order to ascertain on the spot certain facts relative to Hindoostan. The report of this writer strongly recommends an alliance between the Merhattas and the Republican government; and by this means does he propose to sap British influence and commerce in India. His details are of a complexion to disseminate revolutionary principles in trade as well as in politics, in order to allure the other nations of Europe, and to compel them, as it were, to see their own interests, in a manner best suited to the interests of France. Those principles having extended themselves over a great part of Europe, and even, in some instances, found their way into the cabinet of princes, will yet be the means of exciting great uneasiness and disorder. We have seen, under their influence, negotiations carried on in a manner entirely unknown to former diplomacy; divisions of territory, of commerce and property, insisted on, under the specious pretence of the rights of nature;

states and kingdoms extended or reduced according to their situation and the limits or boundaries which are marked on the surface of the globe; and combinations entered into to deprive one country of a beneficial branch of commerce, in order to enrich other less fortunate nations. To render these pretensions more plausible, political writers of every description were employed, under the influence of the governments of Europe, to promulgate what they term the natural prerogatives of the human race.

Commercial rivalry has, from the earliest ages, been the grand source of contention, and what will most probably again become the origin of fresh differences among the preponderating powers of Europe. "Let us (say the subtle politicians of the present day, as observed by a late writer*), examine in what manner the nations of Europe are to enjoy their natural share of the commerce of the world, and particularly of India, so great and lucrative as it has now become. Permit us to cast our eyes over the map of the globe, and trace, on its surface, those lines and boundaries which nature seems to have prescribed to all countries, in regard to commercial arrangements. The coasts of Europe, from Cape St. Vincent to the extremity of the Gulfs of Bothnia and Finland, appear one great division for mercantile enterprise and adventure; a range sufficient for competition among those nations whose dominions stretch towards the Western Ocean. There is abundance of scope for activity and speculation in the limits of that trade, which is naturally connected with the western and northern shores of Europe, the

* Lieut. Col. TAYLOR, in his "Letters on India."

West India islands, the coast of America, the whale and other fisheries, and in the carriage of bulky and weighty articles to and from India. Let all this be enjoyed by the inhabitants of the western coasts of Spain and France, by Portugal, by the Low Countries, Hamburgh, Denmark, Sweden, and Russia, and by Great Britain. But let us enquire into the situation, and what will be termed, by those to whom it relates, the natural right of another great division of the civilized world. In this they will comprehend the whole of the coast within the Straits of Gibraltar, including part of France and Spain, the States of Italy, Austria, Turkey, and Russia; an extent, and population, far exceeding the northern division already mentioned. It will be argued that the Levant trade, or that between the east and the west by the medium of Egypt and Syria, is the natural right of those countries connected with the Mediterranean and Black Seas; that the wants of so large a portion of mankind are to be attended to, and that seventy millions of inhabitants should not depend solely on the exertions of other people, while they possess within themselves the means of commerce."—These ideas are certainly alluring; and the publicity of such opinions, industriously propagated, has, it may be supposed, considerably influenced the minds of men.

The opinions of mankind are to be combated only by opinions, and are not to be overcome by brutal force. On topics of a general nature, which are daily brought under consideration, and in which the rights of nations may be involved, or in regard to questions which may be agitated by foreign writers, we must compare,
and

and weigh one assertion against another, and repel invidious attacks by an exposition of the fallacy of our opponents. We must oppose one position to another, sentiment to sentiment, volume to volume. The poison contained in publications, which are carefully circulated all over the continent, by the medium of Paris, Hamburgh, Leipsic, Frankfort, Berlin, and Amsterdam, should be extracted by counter exhibitions, translated into the different languages of Europe. This is a subject deserving the attention of Government, and daily becoming of greater consequence in the political system of nations. By these means the bad effects of insidious representation would frequently be obviated, the seeds of jealousy be destroyed, and the evil disposition of designing men be completely overthrown.

But as we cannot look forward with every care and attention, on our part, to a continual series of success, it is proper to examine into facts and circumstances, as they may appear either applicable to this country, to those nations with whom we are immediately connected, or to others who may have views inimical to our own. Truth is to be obtained by comparison: The experience of past ages throws a light on similar occurrences, which are constantly passing before our eyes, and fairly may be presumed to indicate what may hereafter happen from a similitude of existing circumstances with those which have already taken place.

In this commercial age, the accumulation of money has entirely changed the system of affairs. It is, in fact, become not more essential to the comfort and enjoyment of individuals, than it is to the political powers and independence of nations. In periods more

remote, the speculations of mankind gave way to a more animated passion. Empires, in the early ages, reared by the alliances of tribes, were upheld by martial virtue and the energies of the human race. The Assyrian, the Grecian, and the Roman empires, were not commercial, but military and agricultural: neither were the vast establishment of the Caliphs, of Jenghis Caun, Tamerlane, or that of the Turks, founded on any other than the law of arms, supported by conquest and the spoils of their neighbours. Intercourse with commercial people, then confined to small states only, softened the manners of mankind, and in the course of time drew them aside from military enterprizes. Luxury, the concomitant of riches and of trade, at length crept in, and dismembered the greatest empires of antiquity.

The Romans, a military republic, annihilated the commercial city of Carthage, because they desired a participation of that commerce, which at last ended in their own destruction. The island of Sicily, the granary of the Mediterranean, in the possession of the Carthaginians, attracted the avarice of the Romans, the first nation in the world; they succeeded in expelling the Carthaginians, and in ruining their trade: but, when imperial Rome became commercial, the Romans were themselves assailed by the more vigorous hordes from the Euxine and the Danube*, whose reiterated attacks they were unable to oppose. The introduction of refinement and luxury, acting on the morals of the Roman people, proved fatal, and brought on by slow degrees the ruin of the empire. These, and

* The invasion of the Cimbri, a northern people inhabiting Scandinavia, first shook the foundation of the Roman empire, by proving their legions not invincible: they swept off five consular armies, till in the end they were themselves almost totally destroyed by the army of Marius.

similar reflections, may create in our minds many doubts of the propriety of rearing vast commercial establishments, without minute attention to those pursuits, which in all ages have, in the first instance, been the source of national independence.

No state or kingdom can long exist in a situation merely commercial. We observe, however, that nations preserving a martial spirit, in possession of liberty and the enjoyment of civil rights, and who have not been burthened with heavy restrictions on their commerce, for a length of time continued to assert their independency, and even to maintain a considerable share of political power. Instances, in the once flourishing kingdoms of Syria and Palestine, in the cities of Tyre and Carthage, in the Rhodians, the republics of Genoa and Venice, and, of a later date, in that of the United Provinces, are easily to be found.

It is to this country a circumstance of great felicitation, that its insular situation, the particular nature of the climate, its physical productions, and the boisterous element by which it is surrounded, give to the inhabitants particular energies denied to other nations, in other respects much more fortunately placed. In spite of the encroachments of luxury, which has within half a century wonderfully increased, the ocean, which has nurtured so many heroes, must ever continue to inspire, and to give that ardour to the mind of our defenders, which is necessary to the existence of maritime nations.

It may be a question not altogether unworthy of investigation, and, perhaps, may one day become of the first importance, Whether

Great Britain, situated without the reach of foreign invasion, at least while defended by a numerous fleet, navigated by a brave and active race of men, may not maintain her rank among nations, without foreign alliances or distant settlements? But it is the system of the present age, for European nations to derive their political independence from trade and foreign colonies; and to enjoy, according to their commerce and opulence, a proportionate share of importance.

The balance of power in Europe is therefore graduated by the scale of money, which in a small country must necessarily arise from foreign possessions and extended commerce. Great Britain derives her consequence from the energy of a population above mediocrity, with an extensive commerce, and great and valuable foreign dependencies. This country has been, perhaps, in these attainments, more fortunate than most others; political arithmetic and the theory of commercial finance are therefore inseparable from our power, in the preservation of which we cannot fail of feeling interested in whatever may tend to endanger that system by which our Government is upheld. On this important subject we are, even in the midst of peace, called upon to contemplate events of the first importance, which for a length of time must continue to threaten the tranquillity of the Eastern Hemisphere. Amongst those events, the probable downfall of the empire of the Turks, the free navigation of the Bosphorus and Black Sea, the occupancy of Egypt, the jealousy excited in regard to our valuable India possessions, and the combination of those nations for the purpose of obtaining a participation of the advantages we enjoy, may be comprehended.

The Emperor of Russia, aided by his allies in the south, will sooner or later overturn the dominion of the Turks; for, however mild and pacific the disposition of the present Emperor may be, the interests and inherent policy of that empire must remain unalterable. Great Britain will, probably, in support of the Ottoman Empire, be involved in fresh hostilities; and the flames of war, leaving Europe in repose, will in that case extend their influence to milder regions. The Mediterranean Sea, the Gulfs of Arabia and Persia, and the Indian Ocean, will become the theatre of war.— But while, on one hand, it may naturally be supposed that Great Britain will, on her own element, exult in the triumph of her navy; on the other, we must be prepared, even in the midst of peace, to meet with firmness those efforts which it may be in the power of our enemies to direct against the most vulnerable part of our possessions: for, since the continental powers are unable to compete with us at sea, they will oppose such other means as they possess; and, in proportion as they are deficient in force on one element, they will increase their exertions where their resources may be estimated by the contrary ratio. In this view of our affairs, the debilitated empire of the Turks, Egypt, as in some degree a component part of that empire, and the distracted monarchy of Persia, will be found to require aid and vigour from the resources of British India.

The military resources of the Merhattas and Seicks, united to those of the East India Company and that of her numerous dependents and allies, will maintain against all the world the independence

pendency of India. And if it may be yet possible to give new interest and animation to the states of Persia, the friendship of that empire would contribute to the security of Hindoostan, as well as increase the consumption of our home manufactures.

The Ottoman Empire, subverted by Russia, France, and Austria, or drawn by these powers, whether by the operation of her hopes or her fears, from the ties of amity with us, will in either case add but little consequence to a continental alliance, which may have for its object any designs hostile to our possession in the East.

The political importance of Egypt has engaged the attention of Europe; but whether that country is likely to become the medium of communication between the East and the West, or that the possession of it by an enterprising and an active people may hereafter affect our India commerce, it must still be allowed, that a colony established at any future period by a commercial rival, or by any European power whatsoever, in the centre of the antient world, on that isthmus which connects with so much advantage Europe, Asia, and Africa, can never cease to be a subject of inquietude and suspicion. Neither is it for the repose of Europe, or consistent with the just claims of the states and kingdoms which comprise that quarter of the globe, that a spot so necessary to all should be exclusively governed by any one power. It might be considered but justice by European nations that Egypt, which sooner or later must be separated from the Turkish empire, should be supported

ported as an independent country, where the natural advantages, which arise out of situation, soil, or climate, would, by the exercise of salutary laws, be equally dispensed. It is, perhaps, in the nature of things, and concomitant with progressive civilization, refinement, and general improvement, that leading nations may consider themselves called on to establish in others uncivilized, or in such as may have from particular causes become degenerated, a system of social intercourse, founded on principles of justice and moral rectitude.

But measures, which carry along with them whatever is gratifying to the philosopher or man of feeling, can never be fairly accomplished by the partial means of one country usurping authority by the mere application of brutal force over any other. Establishments of this nature, where the situation of kingdoms are to be materially altered, can only be justified by the general concurrence, or (if the term may be applied) by a jury of nations. Under their auspices a neutral independent kingdom might be constructed in Egypt as well as in Greece and other countries, where commerce, from mutual reciprocity, would find its level, and the security of property be respected. It is necessary, for the tranquillity of Europe, that, for the present, Egypt should remain undisturbed from the views of interest or ambition, as the period may not be far distant when a revolution in the Turkish empire may transfer that country to other hands. In this case it is evident that the fate of Egypt must be hereafter settled by the powers of Europe; for it would be equally unjust that Great Britain, or any other European nation,

nation, should hold the sovereignty of that ancient country, as that the French republic should have been suffered to have enjoyed its possession undisturbed.

It must be allowed that the pretensions of nations, and the civil rights of humanity, as they are connected with commerce, should not be entirely overlooked. But, in order to render perfect justice, we must examine the moral geography of the world, and recur to certain positions on the globe, intended, as it would seem, by Nature, for the mutual convenience of all mankind. This would be found a difficult task, and, perhaps, too arduous to be even undertaken. It is therefore sufficient that we should convince the world of the justice of our intentions in regard to other nations; and, by persevering in the same honourable line of conduct which has characterised British commerce, continue to secure to this country the trade of India, and of which the territorial possession gives us the entire command. It is for this reason that we have been represented "The Usurpers of Foreign Commerce," and that we have studiously combined our prosperity and force in such a manner as to paralyse and stifle the principles of industry in every other nation. We are accused of every unfair practice, and arraigned in virulent publications, in the language of every state and kingdom in Europe. While such inflammatory writings are permitted to pass without contradiction, they stimulate a spirit of prejudice and resentment between nations, and direct the minds of men to fresh jealousies and new quarrels.

The prosperity of England, ever since the peace of Utrecht, has been gradually laying the foundation of envy among other nations; but it is not to be expected that, because one people are more industrious and enterprising than another, such spirit should be made the ground-work for sacrifices on the part of such people or nation. On the contrary, their example should operate as a stimulus, not only to the inhabitants, but also to the princes and rulers, of the states and kingdoms of Europe. Impolitic restrictions, imposed by short-sighted and narrow-minded governments, impede the mutual intercourse of nations, and create the evil attributed to this country, and not the liberal principles on which English commerce is conducted. To illustrate this by example, we have only to advert to the prohibitory laws of Spain and Portugal, the monopolies and restrictions in Holland, Russia, and formerly in France. It is such things as these that occasion discontent, and which the present enlightened race begin to see and to feel.

We are not, however, solely to depend on the exposition of such circumstances, to obviate all the evil consequences of which men, disaffected or envious of our success, complain. We must have recourse to national integrity and justice, and examine what is incumbent for other kingdoms to perform on their part, and then advert to what may be expected on the part of Great Britain.

On referring to the map of the world, we can distinguish those central positions which would seem intended to facilitate commerce,

and to approximate countries distant from each other. Positions, which, if improved by the art and industry of man, would convey with greater facility the merchandise of China, India, and the Eastern Ocean, to the shores of Europe; among them, The Isthmus of Darien, The Isthmus of Suez, The Cape of Good Hope, and the free passage of the Dardanelles and the Canal of Constantinople, appear of the greatest importance.

The English, with public spirit and liberality, have opened the ports of India to foreign nations; while the Spaniards and Portuguese do not act in the same liberal manner in regard to their settlements in South America and the Philippine Islands. Why is it that the free navigation of the Bosphorus and Black Sea is denied? Are not these glaring instances of selfish and unjust proceedings in other nations? Why, therefore, should Great Britain be blamed, because her exertions, being better directed, are attended with more success?

If these and other evils were removed, and the rights of mankind and of nations adjusted, such measures would probably tend to tolerate, as far as is either possible or practicable, universal freedom of commerce, by which each nation would enjoy whatever share their industry, enterprise, and capital, might enable them to do.

That the foregoing important considerations have occurred, it is not to be wondered at, when we reflect that a general convention of the nations of Europe is expected to assemble, in order to discuss,

perhaps, some of the very points to which our observations have been directed; and that in this discussion may be involved the interests of Great Britain, in the very trade which is the important subject of the following sheets.

To preserve the trade of India to this country is the ardent wish of the Author; and he will consider himself amply repaid for all his labours, if the information which sixteen years residence in India enables him to give, can in any degree augment or preserve the prosperity of the Nation.

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DIRECTIONS

FOR THE STRAITS OF COLOGNE, IN THE STRAITS
OF MALACCA.

FROM Salangore-roads in seven fathom mud, Salangore-hill bearing east, you see two small islands on the east side of the north-sand, known by the name of Pooloo Anza (or Mud and Goose islands), bearing S.S.E. southerly, the top of Parcilar-hill S.S.E. half E. and a large rock on the east-sand, called Poolo Boot-tool S.E. three-quarters S. distance off shore five miles.

Between Pooloo Anza and Pooloo Boot-tool, is a good channel of eight, nine, and ten fathom water, extending about S.E. by S. and N.W. by N. to the entrance of the Straits of Cologne, distance from Salangore seven leagues.

From Pooloo Boot-tool there is a reef of rocks that extends a full mile off, towards Pooloo Anza, which makes it necessary (on a flood tide, which sets to the S.E.) to steer S. by E. from Salangore-roads till you are within one mile of Pooloo Anza, which will be then the fair way in nine or ten fathoms soft mud.

From Pooloo Anza steer S.E. three-quarters S. or S E. by S. which will lead you directly to the Straits of Cologne.

If obliged to work into the Straits, stand no nearer the North-sand than eight fathoms, as it is steep to in many places, and no nearer Pooloo Boot-tool than five fathoms, observing to keep soft foundings, and give Pooloo Boot-tool a birth of a mile to avoid the reef; and when past Pooloo Boot-tool, you may steer into five or four and a-half fathoms at either side, regular foundings and soft mud.

When standing to the southward, do not bring Pooloo Anza to the northward of N.W. and then a S.E. course will lead you to the Straits, as the Straits and Pooloo Anza bear S.E. and N.W. of each other, and being at the entrance of the Straits you may steer in without fear, as it is bold to on either side and clear of danger.

The first Reach lies N. by W. and S. by E. and is about five miles in length, the bluff point on the S.W. side is (for distinction's sake) called Deep Water Point, from the great depth of water found there, occasioned by the fall from an opening to the eastward and directly opposite, and is called Cologne-river, as it leads to the town of Cologne.

As soon as you begin to open the sea in the second Reach, you may haul up at any convenient distance from Deep Water Point, off which you will have 18, 20, and 22 fathoms, soft mud.

The second Reach, where we are now entered, lies S.W. by S. and N.E. by N.; but after you are round Deep Water Point the eastern shore is the deepest, on account of a sand that extends nearly across the Reach, and only admits of a narrow passage not more than half a cable's length broad, and about two-thirds of a cable's length from the eastern shore in the mid-channel.

Being past Deep Water Point, you will see a small creek on the same side (namely, West), and on the East side another; these two bear N. and S. of each other: steer directly over for the eastern creek, which I call the Bar Creek, until about two-thirds of a cable's
length

length from the shore, or until Deep Water Point bear N. 48° E. then by following the course of the Strait you will cross the bar near mid-channel, on the top of which I have had four and a quarter and four and a half fathoms at high water on spring tides. The Bar is about two-thirds of a cable's length broad; and when Bar Creek is fairly open, bearing E. by S. half S. or E.S.E. you are on the top of the bar, and will have the above depth of water, hard sand.

Being now over the bar, steer directly for the south point of the Sea Reach, until the north point of that reach bears W. by N. to avoid the wreck of a large Portuguese ship, which bears west from the north point of Sea Reach, and lies on the eastern shore between Ann Grab Point and the bar; when these bearings are on, and you are two cables length off shore, it is best to keep the eastern shore on board to prevent the flood tide from horsing you through the opening to seaward (which I call Sea Reach), where there is no passage, being entirely choked with sand banks, left dry at half ebb.

E. half S. from the south point of Sea Reach is a creek, the north point of which is called Ann Grab Point, from a grab of that name having been lost upon it. At the south side of which, about one cable's length from the entrance and two hundred yards inland, are three wells of excellent fresh water, of which you can fill six leagers in an hour; but it will be necessary to carry buckets, as there is no rolling-way to and from the wells; this I call Fresh Water Creek. Sea Reach open a ship's length, leads directly up it, and you may water at any time of tide. Few in India know that water may be had in these straits; but every person that has passed them, knows the great convenience of wooding there.

Passing from the southward, you pass Fresh Water Creek at two cables length distance, on account of the flat that runs off Ann Grab Point; and the next creek at the same side is Bar Creek, where you will get the hard soundings of the bar.

Having shut in Sea Reach, you enter the third and last reach ; it being circular you must steer S.W. half S. for two miles, where you will see the sea open to the S.W. and having run till the sea is quite open, a S.W. course will carry you out.

If you are obliged to turn it, as the reach is steep to on both sides, you may stand to any distance you think convenient ; and as you draw towards the entrance you will deepen your water from nine to seventeen fathoms regularly, and shoal in the same manner to seven and six fathoms, no less, except you borrow too much on the south point of the entrance, which side you are rather to keep the greatest distance from, on account of the long flat point which stretches off it.

From the S.W. entrance steer S. by W. two miles, then S. two miles, and having steered as many more S. by E. and S.S.E. you may direct your course down the Straits of Malacca about S.E. or S.E. by E. to avoid the dangers on either side, until you come to Cape Richardo.

Being in mid-channel, at the S.W. entrance, I had the following bearings, viz. Parcilar Hill E. three-quarters S. ; the entrance of the straits N.E. one-quarter N. ; the south point of the entrance of the east strait S.E. by E. ; the west point E.S.E. three-quarters E. ; the west point of the true or north-west strait N.W. by N. ; distance off the nearest shore one mile and a-half.

DIRECTIONS

DIRECTIONS

TO ENTER THE STRAITS OF COLOGNE, COMING FROM THE SOUTH
EASTWARD.

COMING from the S.E. with an intent to go through the Straits of Cologne, haul up for the land while Parcilar Hill is to the northward of east, and steer along shore in four or five fathoms, at about three or four miles distance; when the hill bears east, you will see the entrance of the east strait, about three miles to the N.W. of which is the entrance of the true or N.W. strait, which will shew itself plain when Parcilar Hill bears E. one quarter S. To enter the N.W. strait, the N.W. extreme of the land being in sight to the westward or larboard side of the entrance, observe the following instructions:

As you enter the straits, if it happen to be little wind that you cannot stem the tide, on the ebb endeavour to cross the shoal, or at high water, and give the western points a good birth to prevent the ebb from driving you to the northward of the extreme point or up the opening to the N.N.W. of you, which admits of no passage, being full of dangers.

Being past the shoal off the east point of the strait, steer to the N.E. till you begin to shut in the opening to the N.N.W. then follow the course of the strait, and former directions.

Be cautious in running for these straits, that you do not go to the northward of the N.W. point, as there is a bank of sand stretching off to the westward, and three miles from the point it breaks at half tide, and is dry in many places.

Note.

Note. All through these straits, as well as the Straits of Malacca, when you swing to the ebb the tide is half done, and when you swing to the flood the tide is half made. If the wind will permit, you may enter these straits at any time of tide, but I would recommend at all times to have two boats on the bar. There is good anchoring ground all through these straits.

DIRECTIONS

FOR SAILING FROM POOLOO PISSANG, IN THE STRAITS OF MALACCA, TO BATTACARRAN POINT, IN THE STRAITS OF BANCA; WITH DIRECTIONS TO ANCHOR IN MINTOW BAY.

HAVING Pooloo Pissang E.N.E. you are past the sand bank that lies off that island, and the passage is then clear to the Carrimons, giving the small islands, called The Brothers, which lie to the N.E. of the Carrimons, a birth of two and a-half or three miles, the ground about them being foul and rocky and unfit for anchoring.

From Pooloo Pissang steer S.E. by E. until within four miles of the Carrimons, on account of a reef of rocks, discovered by Captain Lindsay, that lies off the Little Carrimons N. 56° E. distance six miles, and when in one with Barn Island, bears N. 11° E. in one with Red Island S. 58° E. and having the N.E. point of the Little Carrimon shut in with the north-easternmost of the Brothers. Steer S.S.E. half E. until you pass the south extreme of the Great Carrimon, in 12 or 10 fathoms, but no nearer to the shore, as there is a reef of rocks off that point, stretching along shore at about four miles distance. I have sailed within this reef, but it is by no means a safe passage. When the south point of the Carrimon bears west, you are abreast

of

of the middle of the reef; and when the point bears W. by N. you are to the southward of it, and should haul in S. by E. or S. until in seven fathoms, which depth, by keeping along the Sabon shore, will carry you to the westward of the Middleburg shoal, which bears from Red Island E.N.E. half E. and is about midway between that island and the Sabon shore. It is a very dangerous reef of rocks, steep to on both sides, and dry at half tide.

I recommend the channel to the westward, on account of the regular soundings and good anchorage, as on the eastern side of the shoal you have 17, 20, and 24 fathoms, with great overfalls. Your soundings are no guide, and the eddies which the shoal and Red Island occasion, where the tide is seldom less than four knots an hour, may horse you on shore before your anchor gets to the ground, or takes hold. I will not say more on the preference to be given to the western channel, as it is evident, to every unprejudiced seaman, it enjoys many advantages not to be found in the other.

There is a reef of rocks about half a mile from the Sabon shore which is dry at half tide, and when in one with Sabon-hill, bears W. half N. For a sure mark to sail clear of it, keep the high land on the Malay shore over Pulo Pissang; the high land of Jahore N.W. by N. and Red Island S.E. by S. will lead you clear of it, as well as that which lies off the south point of the great Carrimon.

As you draw near the Middleburg shoal, stand no farther off shore than eight and a-half or nine fathoms, as the deepest water is not the greatest sign of safety; and borrow on the Sabon shore to five and four and a-half fathoms, where the soundings are regular and ground soft.

Having Red Island N.E. by E. and the Twins touching each other to the southward of the Red Island, you are clear to the southward of the Middleburg shoal, and should haul up for the opening between the Passage Islands, both of which you have on your left hand, or to the eastward of you; there is another flat island, longer than
either

either of the Passage Islands, which you leave on the right hand, or to the westward of you, and pass between it and the smallest of the Passage Islands, your soundings will be from 18 to 22 fathoms, very regular and soft ground. Should the wind be scant you may sail between any of these islands giving each of them a birth of a mile, as the points which project from each are all rocky and foul ground.

Being through the passage between the Passage Islands, steer for the westernmost of the outer islands that lies off the S.W. point of the Great Durion, called the Tombs, coming no nearer than 16 fathoms, as the point is foul and rocky. You may now see all the Three Brothers; and be about three leagues distance from the nearest or Round Brother. You may sail either to the eastward or westward of them as you chuse, both passages being equally good; for either of which observe the following Directions:

First, If you mean to pass to the eastward of the Brothers, you must keep E. by S. or E. and give each of the Brothers a birth of one mile and a-half or two miles as you pass them.

Being passed the Passage Islands, and the islands off the S.W. point of the Great Durion, giving one mile and a-half birth, steer as above, E. by S. or E. keeping to the northward of the Round Brother one and a-half or two miles; and to know when you are on the edge of the east bank, you will have the peak of the Great Durion N. 55 W. You must not bring it to the westward of these bearings, as the channel here is narrow and this bank dangerous, though no notice is taken of it in any former Directions, nor do I believe it is generally known, many old commanders who have used this track being quite unacquainted with it, having generally run through with a free wind.

Being abreast of the Little or Round Brother, the channel is not more than five miles broad; and after passing the Brothers you are not to stand further to the northward than to bring the peak of the Great Durion N.W. and no nearer the Brothers than 10 fathoms

thoms. A good thwart mark, is the Passage Island, on with the S.W. point of the Great Durion, and open again to the westward of the Tombs, or islands that lie to the S.W. of the Great Durion.

Having rounded the Small Brother, steer S.S.E. and S. by E. half E. taking care not to lose sight of the beach on the Middle Brother from the deck, until the Great Brother bears N.W. by N.; you may then steer S. by W. for Tanjong Barroo, to avoid the overfalls on the tail of the east reef, which you are not clear of, while the False Durion is within the extremes of the Three Brothers, or any where touching on them. You will carry from 13 to 16 fathoms in mid-channel to Tanjong Barroo; but come no nearer that point than 12 fathoms, as the bank is steep too. When the Great Brother bears N.W. or N.W. by N. you may work into any depth of water you please, from 12 on the Sumatra shore to 17 fathoms mid-channel, and 15 on the east side, until you are as far to the southward as Tanjong Barroo, or Bassoo.

TO PASS TO THE WESTWARD OF THE THREE BROTHERS.

As soon as you are clear of the Passage Islands keep the False Durion close on board, and run down mid-channel between the Round Brother and it, giving the Brothers a birth of one mile and a-half to avoid the overfalls and foul ground near them; and having the Great Brother N.W. by N. follow the former instructions.

From Tanjong Barroo to the Calantigas the course is S. one-quarter E. distance 10 leagues; keep along the Sumatra bank in seven fathoms, and you will pass between the Calantigas and the main, in mid-channel, and about four miles from the island.

If obliged to turn through with a scant wind, come no nearer the island than nine fathoms, and stand to the Sumatra shore into five fathoms.

From the Calantigas to Pooloo Varilla the course is S.E. half E. distance 12 leagues; you have 12 fathoms in the channel mud.

If obliged to work here with a foul wind, stand no nearer Pooloo Varilla than 14 fathoms, and no nearer the Sumatra shore than six fathoms. The channel here is five miles broad in the narrowest part.

Pooloo Varilla False bears from Pooloo Varilla N.N.W. three-quarters W. distance five leagues; close to False Pooloo Varilla the water is good, the shore steep, but the ground foul, and bad anchorage. I would therefore recommend ships to keep the Sumatra shore on board, where they may anchor when the current or tide is against them. There are regular tides all through the Straits of Durion, sometimes running strong, but often only a slack water on the flood, which is repulsed by the freshes out of the river of Jambee. The flood from the Carrimons to the Battacarran-point runs to the northward, the ebb to the southward. From Battacarran-point to Lucapera, the flood runs to the southward through the Straits of Banca, and thence runs to the eastward. The floods and ebbs from the Carrimons are well described by Mr. Nicholson.

From Pooloo Varilla to Battacarran the course is S.S.E. half E. distance 20 leagues, and over the pleasantest bank in the world, where there is not an overfall of two inches in the whole extent.— This course will carry you clear of the banks off Battacarran and Tanjong Bon, and will bring you in with Battacarran-point in six fathoms.

If obliged to work to windward in this tract, stand no farther off the Sumatra shore than seven fathoms and a-half, and work into that shore to four fathoms and a-half without fear. The tides along shore are in general strong, but in the offing scarce any tide is perceptible.

The Frederick Endrick is a rock like a point, with a narrow sand bank round it, and steep to on all sides; it bears from the highest part of Monapon-hill S. 70° E.; and from the easternmost land in sight making like an island, and commonly called in our charts Green-island; but by the natives called Poonyabang, N.E. by E. one-quarter E. dis-

tance off the nearest part of Banca three leagues and a-half. As you near it, on the west side, you will deepen your water to 12 or 13 fathoms with overfalls; but ships, to avoid it, should borrow on the bank off Battacarran-point, from four and a-half, to nine fathoms towards the rocks; with a leading wind, seven fathoms is the best water, soft mud.

I have often run between Frederick Endrick and Banca, by which means I have saved much time. There is a very good working channel, full six or seven miles broad, coming no nearer the Banca shore than 14 fathoms, nor further off than to bring Poonyabang N.E. half E. on which bearings, and Monapen-hill S. 70° E. you will be shoaling towards Frederick Endrick, and will have 18 fathoms, hard sand, and overfalls.

Between Frederick Endrick and Carangbrom is a reef of rocks, six miles from the shore of Banca, called Carrang Hodjee, at each end of which is a passage; as also a good working passage between the reef and the Banca shore. To pass either way, take the following Directions to anchor in Mintow Bay.

DIRECTIONS

TO ANCHOR IN MINTOW BAY.

IF you go to the westward of Carrang Hodjee, stand to the S.E. until the top of Monopen-hill bears N.E. by N. then stand in for Mintow town; you will with these bearings pass one mile and a-half to the southward of Carrang Hodjee in seven fathoms, hard sand; being over the bank, you will deepen to 12, 14, or 16 fathoms, and shoal again towards the shore to 12 or 10 fathoms. Three miles off

the town, which with the hill N. by E. is the best anchoring ground. The bank reaches from Carrang Hodjee to Carrang Bram, which lies off the point of Banca, called Tanjong Coony; it is very shoal towards the latter reef, and dries in many places, so that no ship should attempt to pass over the bank into Mintow-roads with Monopen-hill to westward of north; by keeping the hill north you may cross the bank in three fathoms and a-half; at low water spring tides, your soundings will be hard sand, coral, and shells.

If coming from the northward, and want to go into Mintow; to the eastward of Carrang Hodjee: keep Monopen-hill E.N.E. and you will pass between Frederick Endrick and the shoal of Carrang Hodjee, and may run up in a good channel of two miles and a-half broad, taking your soundings from the Banca shore, and not coming nearer the shore than eight fathoms. Towards the rocks is deep water, 30, 40, and 50 fathoms, and overfalls; borrowing on the low point where the Sultan has a fort, called Tanjong Coolian, within one-third of a cable's length, then keeping a convenient distance off shore you may anchor by the former Directions.

Carrang Hodjee bears from Monipen-hill (or Peak) N.E. easterly; the northern extreme of it bears from the peak N.E. three-quarters E.; and the S.E. end bears when in one with the Peak N.E. half N.; the rocks are all covered at high water, and many of them shew themselves at half tide.

DIRECTIONS

FOR SAILING FROM BATTACARRAN POINT IN THE STRAITS OF BANCA, TO POOLOO PISSANG IN THE STRAITS OF MALACCA; WITH INSTRUCTIONS FOR KNOWING THE LAND.

BEING off Battacarran-point, and bound to the northward, through the Straits of Durion, observe the following instructions:

Battacarran-point is known from Battacarran-false by a few trees in a cluster, not unlike the walls of a fortification or an old building; near its extremity, besides this point, is a bluff, and the false point runs into the sea by a gentle descent, and runs off in a long flat.

Ships in this track will have no occasion to come nearer Battacarran-point than six fathoms, and from six to seven fathoms off Battacarran-point a N.N.W. half W. course will carry you up to Pooloo Varilla; distance 20 leagues. You should not, however, depend too much upon your course; the best method is to coast it, in from five to seven fathoms, which will lead you clear of Tanjong Bon flat, and nearly in the mid-channel from Pooloo Varilla in 11 or 13 fathoms. You must not borrow on Varilla nearer than 14 fathoms, as it is steep too; but you may stand to the Sumatra shore to five or four and a-half fathoms, or any depth you may think convenient, as it is a regular flat mud bank.

Pooloo Varilla is a pretty high island, and may be seen from a ship's deck eight leagues; when it is to the northward of you, it appears like a rabbit squatting with the head to the S.E.; and when to the southward of you it makes like a saddle, with three small round islands to the S.E. and a small flat one to the northward; when it is to the northward of you, making like a rabbit, the small islands

islands are in one with it. It is said there is fresh water on the east-side; but as the island is much infested with pirates I never knew any one who attempted to land there; but have heard of one commander who lost a boat and boat's crew on it. There is no appearance of a beach or landing place; the shore is all steep and rocky.

N.N.W. three-quarters W. from Pooloo Varilla, distance five leagues, is a flat table Island, that is seen coming from the northward before you see Pooloo Varilla; and as it has in the night been mistaken for Pooloo Varilla, I, for distinction, have called it False Varilla.

From Pooloo Varilla to the Calantagas, the course is N.W. half W. distance 12 leagues, this will carry you through in seven fathoms, at about four miles distance from the Calantagas; but if obliged to turn it with a foul wind, come no nearer the Sumatra shore than five fathoms, and off to the islands to nine fathoms, and be careful to pay attention to the tides, which are uncertain.

The fair way between Varilla and the Calantagas is 12 fathoms, and the lead is an unerring guide. The Calantagas are five islands, the three principal of which they take their name from, and they bear nearly N. 15 E. and S. 15 W. of each other; the centre and extreme islands are the largest, and may be seen eight leagues from a ship's deck: the other two, which lie between the centre and extreme, are round and small, and cannot be seen above five or six leagues from a ship's deck. There are two small rocks to the S.E. of the Calantagas, each about the size of a large long-boat, and from their near resemblance to each other I call them the Sisters.

E.S.E. from the Calantagas is a funken rock, distance off the southernmost island three and a-half or four miles; but if you keep in the depth prescribed you cannot go near it.

From the Calantagas to Tanjong Bassoo (or Barroo) the course is N. one-quarter W. distance 10 leagues; this course will carry you clear of that point in 12 fathoms; but as you near the point it is best

to

to keep out to 14 fathoms; then N. by E. one-quarter E. will carry you to the Great Brother in 15 fathoms, and is nearly mid-channel and even soundings. If you go to the westward of the Brothers, keep mid-channel between them, and the False Durion; but if you go to the eastward of them, give them a birth of one and a-half or two miles, and round them in 10 or 11 fathoms. As you draw near the Small or Round Brother, deepen to 12 or 13 fathoms; but be cautious you do not borrow too much on the eastern side, on account of a dangerous reef already mentioned, which extends all the way to the islands on that side, with alarming overfalls and hard ground. When in four fathoms on this bank, I could just see a small part of the beach on the Middle Brother, off the deck, and crossed three banks of six, eight, and ten fathoms coral before I got into the right channel again.

I have often, since I knew this bank, worked through in the night, by shoaling to 11 fathoms near the Brothers, and tacking as soon as I got among the overfalls. It is not dangerous to run here in the night; I have often done it; but before I was so well acquainted as I now am, by taking too large a range to the eastward, expecting to find deep water, I got on this bank. Our charts, as well as the Bute's track, lay down 20 and 30 fathoms as the depth of water to the eastward; but the depth I have found is from 16 to 18 fathoms. There is no notice taken of this bank in Bute's chart, which makes me suppose the person who described this place knew nothing of a bank being there; nor should I, had not the accident above related carried me to the eastward.

From the Middle to the Round Brother there runs a reef of rocks, great part of which dries at half ebb; and another reef of rocks runs N.W. from the Round Brother about one and a-quarter or one and a-half mile, which makes the channel between the Round Brother and the bank narrow, not exceeding five miles broad. If obliged to turn through this channel, the best guide is to keep the beach

beach on the Middle Brother in sight, or not to bring the peak of the Great Durion to the westward of N.W. and stand towards the Brother to 11 and 10 fathoms, about two and a-half or three miles distance.

After leaving Tanjong Bassoo, and having an island that makes like a neat's tongue E. by N. or E. the peak of the Great Durion is the first land that appears to the northward; the next is a saddle island to the eastward of the Great Durion, then the False Durion, and soon after the Great Brother in one with the peak of the Great Durion bearing N. 20 W. at the same time Saddle Island will bear N. four W. the peak of the False Durion N. 23 W. and Tanjong Barroo just going out of sight from the deck N. 68 W. depth of water 13 fathoms, sand and shells.

When the Middle and Small Brothers appear, they will shew themselves within the extremes of the Great Durion; and the Great Brother in one with the peak, as above, is a good leading mark.

The reason of being so particular with the bearings hereabout, is the resemblance of one island to another, so that a stranger may be easily mistaken, and a person should be very exact in regard to these bearings, then no mistake can possibly happen.

On the N.E. side of the Great Brother is a large patch or cliff, not unlike the walls of a fortification, which should you lose sight of from the deck, you may conclude yourself too far to the eastward, and should haul over to the westward directly, for to the eastward you will have overfalls of three and four fathoms at a cast, and in many places scarce three fathoms water.

While the False Durion is within the extreme of the Brothers, you are not clear of the bank to the eastward: when the Round Brother is open to the eastward of the False Durion, you are abreast the S.W. point of the shoal.

As soon as the S.W. point of the Little Durion shews itself plain, you will see the Tombs, or three small islands that lie off the S.W.

point of the Great Durian, and when the largest or outward island bears N. 70 W. it will be on with the peak of Sabon-hill, (which hill now appears like two islands, and may be taken for the Carrimons); that is a good long mark for leading you clear of the foul point off the Great Durian, where there are some rocks under water that lie along shore; or by giving the Durians and small islands a birth of one and a half or two miles, you may round them without danger.

To the N.E. of the Great Durian is an opening that much resembles the Straits of Durian, but admits of no channel for ships; the bearings of the Tombs and Sabon-hill should therefore be attended to, as well as to observe not to bring the peak of the Great Durian to the westward of N.W.

When Sabon-hill is on with the easternmost Passage Island, it bears N. 52 W.; when the northernmost or small Passage Island is on with the peak of the Great Carrimon it will bear N. 40 W.; when the Small or Round Brother is on with the S.W. point of Great Passage Island N. 43 W. and S. 43 E.

Being past the Brothers, steer for Passage Island, and in mid-channel you will have from 18 to 22 fathoms, mud; and by allowing all points of the islands one mile birth you will pass clear; and being through, the following Instructions are to be observed for the Middleburg-shoal:

N. 63 E. from the highest part of Red Island is a shoal or reef of rocks about two cables length long, and reaches about half a mile off the island; this makes the passage between Middleburg-shoal and Red Island very narrow, and having deep water close to the reef, makes it a less safe channel than between the Sabon-shore and the Middleburg. The long mark for going between the Middleburg and the Red Island, is to keep the peak of the Great Durian S.E. half S.; or the northern Passage Island in one with the peak of the False Durian.

For a thwart mark, if obliged to work through this channel, you must not bring the False Durian open above a ship's length to the westward of the Passage Islands; no nearer Red Island than one-half or three-quarters of a mile, on account of the reef that runs off it. When you have got a small rocky island with a tree on it (which I call the Cap and Feather, from its resemblance to one) open to the southward of the Twins, you are then clear of the Middleburg to the northward, and may stretch over for the Sabon-shore.

When the northernmost of the Twins is shut in behind Red Island, you are clear of the Middleburg-shoal to the southward; when the Middleburg-shoal is on with Sabon-hill it bears N. 68 W.; when the northernmost Twin is open a sail's breadth to the northward of Red Island, you are clear to the northward of the reef of Red Island; when the reef was on with the northern extreme of Red Island, it bore N. 50 E.; and when in one with the Cap and Feather to the N.E. of Red Island, it bore N. 52 E.

The leading mark on the Middleburg-shoal is both Passage Islands in one, and the passage between the S.W. point of the Little Durian and the small Passage Island open, and the whole of the Great Carrimon open to the eastward of Sabon-point.

To go clear of the Middleburg-shoal, I would recommend the channel along the Sabon-shore, as it is the safest and broadest. As soon as you are through the Passage Islands haul to the Sabon-shore, until the easternmost or Sabon-point is on with the east peak of the Little Carrimon, and the S.W. point of the Little Durian is shut in with the small Passage Island, and the passage between the Passage Islands is fairly open; then steer N.N.W. along the Sabon-shore in five, six, seven, or eight fathoms, soft mud, until Red Island bears E. by S. and the Twins open with each other to the northward of Red Island; then steer N. by W. or N. until you deepen your water to 10 or 12 fathoms, by which time you will see the high land of Johore on the Malay shore to the eastward of the Little Carrimon bearing N.W. by N.;

N.; steer directly for it so as to fall in with the Little Carrimon four or five miles distance, and avoid Lindsay's Reef by going to the westward of it, and the reef that lies off the south-point of the Great Carrimon.

When the peaks of the Great and Little Carrimon are in one, haul over for Pooloo Cocob, to avoid the foul ground off the point of the Brothers; and having got hold of the east bank, keep in 15 fathoms, soft mud; and pass Pooloo Pislang at the distance of three or four miles.

DIRECTIONS

FOR LINGIN RIVER, AND SOME ACCOUNT OF BANCA AND
PALAMBANG, WITH THE TRADE THEREOF.

WHEN going to Lingin from Pooloo Taya, do not bring Taya to the westward of south till passed the latitude of the Ilchester-shoal, and you may stand towards the Egolitee Islands, within one mile and a-half, soundings sometimes hard, at other soft, with overfalls, from 14 fathoms on the west side to six towards the island; but no danger that I have seen or heard of. To know the river's mouth, steer right in for the high land to the eastward of the peak, which will carry you in between two small islands that lie about one mile and a-half from the shore; and opposite the river's mouth there are many small islands in shore. But by following these Directions you cannot miss the river. To anchor, bring the extremes of Lingin, and the islands to the southward of it, to bear from E. to S.S.W. half W.; Pooloo Taya S. by E. half E.; the Peak N.W. one-quarter N. in 10 fathoms,

thoms, mud; and fend your boat in between the islands. Here is a sale for opium, from 50 to 100 chests; for which you will receive tin, pepper, gold, and rattans in return. The inhabitants are all pirates; it is therefore necessary to be well armed, and constantly on your guard.

The island of Banca, perhaps, contains the first tin mines in the world; there are annually from 40 to 60,000 piculs smelted and exported. It is the only export they possess. They have gold and silver on the island; but the Sultan will not suffer the mines to be worked.

The Sultan and also the Dutch resident live at the opposite shore, at Palambang on the island of Sumatra. With the Dutch resident, perhaps, something may be done. In case he should decline trading, you must endeavour to find out the agents of the princes of Banca, and those of the Caranga (or prime minister), who have always carried on an illicit trade, in opposition to the Palambangers and the Dutch, with whom the Sultan has contracted for 30,000 piculs of tin annually.

Some Dutch cruisers are stationed here, under pretence of protecting the Sultan and enforcing his laws; but it is, in fact, a piece of Dutch policy, to prevent his trading with any other nation. You may have as much access to the Datoos, at Mintow, as you please, by the observance of certain ceremonies, which the commanders of the Dutch cruisers expect from strangers, and which are well understood.

The price of tin, in a great measure, depends on the number of ships who are in want of it; the price in 1789 was from 16 to 18 Spanish dollars, and scarcely to be had. The pecul is 133 $\frac{1}{4}$ pounds, generally weighed with a dotchin or wooden steelyard. A cold chissel is as necessary to be used in the purchase of tin, as Spanish dollars are to pay for it. The Chinese, who are the most accomplished rascals upon the earth, have taught the Malays to put iron
shot

shot and stones into the middle of the flab, and then sell it as current merchandise. I have, myself, detected some of them at these tricks. Presents are more necessary here than in any part of the eastward, as it is the only way to get any thing done. The principal people on Banca are, Abange Lemon the chief, Abang Tavye, Abang Vanoos, Abang Myle, Hodge Alley, and Rajah Mahomed. At Palambang is the Coranga Japootra and his three sons, Kayagus, Abdulla, and Somille: his agents are, Aboo, Samodin Bazar, (alias Cheeks), Samoodin Catchill (alias Jarragon Lannen); these are the principal tin merchants.

It is not worth while carrying any trade to Banca, as nothing will secure you tin but Spanish dollars; and they are not fond of taking ducatoons.

Palambang sometimes furnishes a little indifferent pepper at 12 to 14 dollars per picul, and a few rattans from Jambee; these are not always to be had. They have some gold, but it is not an article of trade.

Yre Mafs is a tolerable place for tin; it is at the north end of Banca, and you deal chiefly with the captain China man.

DIRECTIONS

FOR SAILING FROM BATTACARRAN, THROUGH THE STRAITS OF
BANCA.

HAVING Monopen-hill E. by S. half S. in seven fathoms, soft ground, on the bank off Battacarran-point, you are then abreast of Frederick Endrick; shape your course to keep mid-channel, and avoid the shoals between Battacarran-point and the fourth point of Sumatra,

Sumatra, as in many places they reach three leagues off shore, and should not be approached nearer than six or five fathoms, in which depth you will have sand and mud, and sometimes shells.

The reef off Carrang Hodjee on the other side is equally dangerous, having deep water close to in many places, as 25, 20, 18, and 16 fathoms. When the peak of Monopen-hill bears N.E. the centre of Carrang Hodjee is in one with it; when the top of the hill bears N.E. three-quarters E. the west end of Carrang Hodjee is on with it; and when the top of Monapen-hill is N.E. half N. the east end of the reef is on with it; 12, 10, or eight fathoms water is the best water in this channel; and you can haul to the northward as circumstances may require.

Being past the south wash of Salt-river, which is the first after passing Battacarran-point, keep along the edge of the mud bank that lies off Palambang-river; this is the second after passing Battacarran, in nine or eight fathoms, until you are abreast the third or False-river; then haul off and deepen to 11 or 12 fathoms: and when the island in False-river is open in the entrance, and you see the appearance of a passage at each side of it, you will, perhaps, get a cast on a lump of sand, with six fathoms on it; but you must not be alarmed as there is no less, nor will you get a second cast: you must not increase your soundings to more than 14 fathoms, as there is a reef off Carrang Bram to the eastward of you, lying off Tanjong Cooney, whose S.E. end when in one with Monopen-hill bears N.W. half N. and its bank reaches to the reef off Carrang Hodjee already mentioned.

Being past the False-river haul to the eastward, and do not come nearer Salfee-river which is the fourth and last you meet between Battacarran-point and the fourth point. Come no nearer the shore than 10 fathoms, as the bank is as steep to as a wall, and round the fourth point at two and a-half or three miles distance, and come no nearer it than eight fathoms, mud; keep along the Sumatra shore at
two

two and a-half to seven miles off shore, in 10 to 14 fathoms, soft, until you are clear of the third point, which you may round within one mile and a-half, or in 11 or 10 fathoms; and being abreast of it, steer over E. or E. by S. for the Great Pula Nanka, till you deepen your water to 15 or 20 fathoms; this you will do pretty quickly, and will have stiff clay soundings, and sometimes red clay and shells. Keep now down about mid-channel, to avoid a mud bank that lies to the southward from the third point about 10 miles and near four miles from the shore; keeping six miles off the Sumatra shore, until you raise the second point plain, will carry you down in regular soundings from 16 to 18 fathoms; as you near the second point borrow towards it, and round it at four miles distance.

It is said there is a shoal of sand and coral about one-third channel over from the Banca shore between the first and second points. I have enquired of the Dutch cruisers who are stationed here, but they know nothing of its existence. I have stood across, working up these straits from side to side, and never found it. I have had overfalls as I neared the Nankas, and foul ground under Parmassang-hill; but as it can answer no good purpose to keep the Banca shore on board, I recommend ships to keep on the Sumatra side, and not exceed two-thirds channel over, or even one-half channel, and you may coast it from the second point to the first, from two to six miles distance from Sumatra, in 10, 12, 16, or 18 fathoms, soft mud and regular soundings.

As you near the first point haul in for it, and being abreast of it about two or three miles you will see the little island called Lacapera, bearing S.S.E. or S.E. by S. You should, after rounding the first point, keep in towards the Sumatra shore at three or four miles distance, four or four and a-half fathoms, mud, taking care to haul to the westward if you get hard soundings; and to haul to the eastward if you shoal your water, and keep muddy ground from five to four and a-half fathoms off, to any water you think proper along the
Sumatra

Sumatra mud bank, always observing to take your soundings from that side. Having Lacepara E.N.E. haul off to the eastward, and give Lacepara-point a good birth of eight or nine miles in five fathoms, soft ground. The best water in the narrowest part the mid-channel is four and a-half fathoms at low water spring tides.

Coming from the eastward, and having passed Lacepara-point and Lacepara, by hauling into the Straits at too great a distance from the Sumatra shore, you will shoal suddenly from six and a-half fathoms soft, to four fathoms hard, with overfalls from three to five fathoms, then three fathoms again, Lacepara bearing S.E. half E. distance seven or eight miles; haul immediately over for the Sumatra shore, and deepen to six, seven, and eight fathoms, soft mud.

Note. When in the overfalls, and hard ground, Mount Parmassang was open to the eastward of the first point; and when we had seven fathoms soft, one and a-half or two miles from Sumatra had all the Mount shut in over the first point. I therefore conclude that due observance of the above remark, of keeping Parmassang-hill shut in with the first point, will carry you clear of a danger that should be carefully avoided.

DIRECTIONS

FOR SAILING FROM LUCEPARA, AT THE SOUTH ENTRANCE OF
THE STRAITS OF BANCA, TO TANJONG SALATAN, THE SOUTH
POINT OF BORNEO.

HAVING rounded Lucepara, by the foregoing instructions, and being clear of the shoals in seven, eight, or nine fathoms soft ground, steer S.E. by E. or E.S.E. till you deepen to 18 fathoms, and keep-
ing

ing in latitude $4^{\circ} 16'$ to $4^{\circ} 22'$ S.; and between 18 and 24 fathoms, you will have even ground and soft soundings, until you come on the bank off Tanjong Salatan, you will then shoal gradually, and have hard soundings. I make Tanjong Salatan to lie in latitude $4^{\circ} 12'$ S.; and longitude by sun and moon $114^{\circ} 36' 15''$ E. of Greenwich. Keep between 12 and 14 fathoms, and you will round the point; at about four leagues distance you will have very even soundings, sometimes ooze, sand, and shells, with mixtures of gravel and coarse sand.

DIRECTIONS

FOR SAILING FROM TANJONG SALATAN TO PASSIER, ON THE
EAST COAST OF BORNEO; WITH SOME ACCOUNT OF THE
STRAITS OF MACCASSOR.

FROM Tanjong Salatan steer east, and pass to the northward of Monaveffa; this island bears from Tanjong Salatan E. by S. distance 56 miles, and lies in latitude $4^{\circ} 22'$ S.

Coming on the bank off Tanjong Salatan, and in 12 fathoms, you will see the high land over the point called Goonong Ratoos, or the Hundred Mountains, bearing N.E. by E. distance 15 or 18 leagues, making like two large round islands; but as you near it, and within the distance of 12 leagues, it appears like a large saddle island; should it be night, or thick weather, keep between 12 and 15 fathoms, until you see the south end of Pooloo Lout, which bears from Monaveffa N.E. one-quarter N. distance 12 miles, and lies in latitude $4^{\circ} 11'$ S. But before you run this length you will see another small island, called Dwalder, which bears from Monaveffa E.N.E.

E

half

half E. Keep mid-channel in this track, having regard to the currents or tides, that set strong in and out of the Straits of Lout, that you are not set on the S.E. island off Pooloo Lout, nor on the bank off Dwalder. You may borrow towards the island off Pooloo Lout should the wind be scant, with the greatest safety, and keep between 13 and 16 fathoms, mixture of coral, rotten stones and shells, and sometimes sand. When the south point of the S.E. island off Pooloo Lout bears N.N.E. half E. you first begin to soften your soundings, first with shingly sand like steel filings, then sand and mud; and as you stretch to the eastward you will have soft mud and regular soundings.

Being in 16 or 18 fathoms, and five leagues to the eastward of Pooloo Lout, steer N. till you see four small islands, called The Ampats, which at first rising will bear about N. and may be seen from a ship's deck about four leagues.

You have now to chuse whether you will go to the eastward or the westward of the Ampats; if to the eastward do not come nearer them than 22 fathoms; and if to the westward, not nearer than 19 fathoms, as they lie in the stream of 20 or 21 fathoms; nor to Pooloo Lout nearer than nine or 10 fathoms, soft ground.

Being past the Ampats, keep six leagues off shore, to avoid the shoal and sand banks in the deep bay you will have on your larboard bow and beam, until as far to the northward as $3^{\circ} 0' S.$; and then haul in for the land till you see the entrance of a large river to the westward of you, keeping in from 12 to 16 fathoms, soft ground.

As soon as you see the entrance of the large river fairly open, haul up for the northernmost point of it, giving it a birth of two or three leagues; but do not on any account increase your distance to more than six leagues, on account of a dry sand bank and reef of rocks that lie in latitude $2^{\circ} 27' S.$; and bears from the north point of the large river $N. 74^{\circ} E.$ and $S. 74^{\circ} W.$ This is a dangerous shoal, and your soundings at night are the only sure guides you can go by. From 12 to 16 fathoms is the best track; and should you have overfalls haul directly

directly to the westward. In approaching the banks you will have overfalls, from 17 to 19, 20, 25, 30, 15 and 13 fathoms, or less; at other times you may have deep water, about 15 or 18 fathoms; and next cast scarcely three fathoms, coral and shells.

Being past this bank keep in shore from 12 to 14 fathoms, till Tanjong Lapar bears W. to avoid a bank of coral and rocks that bears E.S.E. from the point, distance four leagues, and two dry sand banks that lie E. from the point, distance three leagues. The latitude of this point, Tanjong Lapar, is $2^{\circ} 8' S.$; and the latitude of the bank of coral rocks $2^{\circ} 10' S.$

Having Tanjong Lapar W. or W. by S. distance four, five, or six leagues, in 12, 14, or 16 fathoms, steer N. by E. not coming under 10 fathoms until you are in latitude $1^{\circ} 45' S.$; then steer in W. shoaling gradually to five fathoms, mud. You will now see the entrance of a large river, called, by the Malays, Passier Lama (or Old Passier), bearing W.N.W.; but steering along shore S.W. or S.W. by W. will bring you fair into Passier-roads, in five or four and a-half fathoms at low water. As you near Passier-river you must keep a very good look out for the entrance, as it is not easily discerned. Having seen it, come to in four and a-half or four fathoms at low water; having the river's entrance W. by S., the extremes of the land to the northward N. half E.; the entrance of Passier Lama N.W. by W.; the southern extreme, (which is Tanjong Lapar False) S.W.; distance off the nearest shore four leagues.

The only certain method for a stranger to find Passier-river, is to run into the latitude of the roads, and anchor in the depth of water prescribed. I observed several times here, and invariably found the latitude $1^{\circ} 49' S.$; the entrance of the river bearing $S. 75^{\circ} W.$; the extreme of the land from Tanjong Lapar False, $S. 22^{\circ} W.$ to N. nine E.; the entrance of Passier Lama N. $51^{\circ} W.$ distance off shore four leagues at low water: the entrance of Passier Lama is in latitude $1^{\circ} 43' S.$ and has six fathoms close to the N. shore, six or seven miles within the entrance.

DIRECTIONS

FOR GOING INTO, AND UP PASSIER RIVER.

BEING in latitude $1^{\circ} 49'$ S. and Lapar Falso bearing S.S.W. and the northern extreme N. half E. anchor in four and a-half or four fathoms, mud. Four leagues off shore you may see from the mast head some fishermen's huts on the north side of the river. Let your boat leave the ship at low water and slack tide; steer in W. or W. by S. till she is over the flat at the entrance of the river; and then run in directly for the fishermen's houses. The fishermen will, in all probability, endeavour to prevent your boat going up, till they try whether they cannot purchase for themselves or not. Your boat is not to pay any attention to them, but proceed for the river; to go up which observe the following Directions:

Passier-river contains 16 reaches, and has five other rivers join it. The first river you leave on your right hand; the next three on your left; and having passed the fifth, which you leave on the right hand, you are within half a mile of Passier, which consists of about 300 houses, most of which are wretched beyond description; and here the king and court reside.

It flows in Passier-roads on full and change days at five hours; and the tides rise and fall nine feet perpendicular: the flood runs to the northward, and the ebb to the southward.

PASSIER, WITH THE TRADE, AND HOW TO CHUSE THE ARTICLES OF EXPORT.

Considering the situation of this place, the air is tolerable, being refreshed every morning by cooling breezes from the sea, otherwise
the

the heat would be insupportable. These parts, nevertheless, are very unhealthy, as they lie in a flat for many miles, are encircled by woods, and are annually overflowed. When the waters retire, a muddy slime is left on the surface of the earth, which the sun shining upon with perpendicular rays, occasions thick fogs, which in the evening turn to rain, with cold chilling winds, off the land, so that the air at this time is very unwholesome. Another circumstance that contributes to this, is the great number of frogs, and other vermin, left on the mud, which being destroyed by the heat of the sun, produce an intolerable stench.

In April the dry season begins, and continues until September, during which time the wind is easterly between the south coasts of Borneo and the island of Java; but from September to April the winds are westerly, attended by violent storms of thunder, lightning, and rain; these storms are so continual, especially on the south coast, and at Banjar Masséen, that it is thought very extraordinary to have two hours fair weather in the course of the twenty-four.

Exclusive of rice, which is very plentiful, the produce of this country is benzoin (or frankincense), musk, aloes, pepper, cassia, and long nutmegs; also various kinds of fruits, excellent mastic, and other gums, particularly dragons blood, which is finer here than any other part of the world; honey, gold-dust, and camphor.

The exchange for the produce of this place is similar to the other parts of the Malay coast, viz. opium, guns, musquets, pistols, gunpowder, lead in pigs and sheets, iron and steel in narrow bars, hangers, knives, scissars, and other cutlery, cloths, chints, carpets, spectacles, looking-glasses, spy-glasses, clock-work, &c.

It may not be improper to observe that the people of this place are arrant cheats; they have cut off several ships by treachery, and are ever ready to take advantage of an unguarded moment. In their barter they are unjust, particularly in weights and measures; they make compositions to imitate some of the most valuable articles, particularly bars of gold; which is so artfully done that unless they are entirely cut
through

through the deception cannot be discovered: and he thinks himself the most ingenious who commits the greatest fraud.

This being the case, it becomes necessary that the captain of the vessel, who is generally the super-cargo on these occasions, should be extremely cautious in examining the articles of export, which he either purchases or receives in return for his cargo.

The following rules will materially assist in preventing those frauds which at Passier, and generally on the coasts of Malay and Borneo, are very commonly practised.

Benzoin, or benjamin, is the concrete resinous juice of a tree growing in the East Indies and in North America. Benzoin is in drops and lumps; the former is seldom or never met with; the latter is composed of small grains, of a colour inclining to white or yellow, with a purple cast on the surface; it is very inflammable, and diffuses a fragrant smell while burning. It is gathered in the following manner: when the benzoin trees are six years old, the natives of the islands of Borneo, Sumatra, and Java, cut them in several places under the large branches, in an oblique direction, quite into the wood: the benzoin which flows from these wounds is white and soft at first, but by degrees becomes harder and acquires a darker colour on the surface by being exposed to the air.

In order to be of a good quality, this gum should be extremely clean, of an agreeable scent, very resinous, and intermixed with many white tears; that which is very brown, black, and without smell, is to be rejected: the mass should be broken quite through, to see that it possesses the necessary qualities.

Dragon's blood is a rosin, obtained from a kind of palm-tree; it is either in oval drops wrapped up in flax leaves, or in larger and generally more impure masses, composed of smaller tears.—It is externally and internally of a deep dusky red colour; and when powdered it should become of a bright crimson; but if it be black it is worth
very

very little. It easily melts over the fire, and is inflammable, diffusing a singular, and not a disagreeable smell.—When broken, and held up against a strong light, it is somewhat transparent.—It has little or no smell or taste; what it has of the latter is resinous and astringent.—The dragon's blood in drops is much preferable to that in cakes, which latter is less compact, resinous, and pure than the former.—Several artificial compositions coloured with true dragon's blood or other materials, have been put off instead of this article. Some of these dissolve like gums in water, and others crackle in the fire, without proving inflammable; whereas the genuine dragon's bloody readily melts and catches flame, and is scarcely acted on by watery liquors. It is most prudent to purchase only the drops, rejecting the impure masses.

Musk is the excrementitious blood of a quadruped about the size of a goat, which is either naturally secreted and afterwards collected by human industry, or contained in the small bag of the animal when killed at a proper season. The sort most esteemed is that from Tonquin, in China; an inferior sort is brought from Agra and Bengal; and a still worse from Russia.

This drug is a dry, light, friable substance, of a dark colour, with a purple tinge; its taste is somewhat bitter, and its smell too strong to be agreeable in any quantity.—We meet with it in grains, which feel unctuous, smooth, and soft, and are easily crumbled between the fingers; these grains are in a bladder or skin, about the size of a pigeon's egg, or larger; each bladder containing from two or three drachms to an ounce in weight. The genuine bags of musk are so scented as to offend the head when applied close to it. The cavity containing the musk is generally about three-quarters of an inch long and half an inch wide. The whole external substance is membranous rather than fleshy, and its aperture is guarded by a sphincter muscle: the inner membrane, immediately inclosing the musk, is full of blood-vessels all over; and towards the orifice of the bag several

veral glands are distinguishable in it, serving for the secretion of this perfume.

Musk should be chosen of a very strong scent, in the dry and found natural bags of the animal, not in the factitious ones, made of skins sewed together, which may be distinguished by the closeness and length of the hair on the latter kind of bags; these factitious ones having more and longer hair than the genuine, and that generally of a paler colour.

A small quantity of musk, macerated for a few days in rectified spirit of wine, imparts a deep colour, and a strong impregnation to the spirit. This tincture, of itself, discovers but little smell, but on dilution it manifests the full fragrance of the musk; a drop or two communicating to a quart of wine or watery liquors a rich musky scent. The quantity of liquor which may thus be flavoured by a certain known proportion of musk, appears to be the best criterion of the genuineness and goodness of this commodity.

Few drugs are more liable to sophistication than musk; it is adulterated on the spot with the animal's blood, which acquires so strong a scent of it, after drying among it, that it may pass alone on the unsuspecting for real musk. This fraud may be discovered by the largeness of the lumps or clots, as the blood dries to a harder and firmer substance than the genuine musk; it is sometimes mixed with a dark coloured friable earth, this appears to the touch of a more crumbly texture, and harder as well as heavier than the genuine musk; but this deception is best discovered by burning a small quantity; in which case, musk adulterated in this manner, leaves a large and heavy remainder. The genuine, or even that mixed with blood, either evaporates or leaves only a few white ashes. When musk begins to decay, it is a practice in the East Indies to put it into a bag full of needle-holes, and hang it in a necessary-house, but low enough to touch the filth: others keep it wrapped up in linen, well moistened with rank urine.

Pepper

Pepper (black) is the small, round, aromatic fruit of a trailing plant, which flourishes on the coast of Malabar, and in the islands of Java, Sumatra, and Ceylon. It is not sown, but planted, and great care is required in the choice of the shoots. It produces no fruit till the end of three years; and then bears so plentifully the three or four succeeding years, as frequently to produce two crops in a year; the bark then begins to shrink, and the shrub declines fast, so that in twelve years time it ceases to bear.

Black-pepper is to be chosen of a pungent smell, extremely acrid and hot to the taste, in large grains, firm, sound, and with few wrinkles; but it will always have some, which are occasioned by its being dried in the sun. Care should always be taken that the largest grains have not been picked out, as is sometimes done.

White-pepper is distinguished into common and genuine; the latter is very seldom met with, and approaches nearly to the properties of the black-pepper, the nearer the better. The common white-pepper is weaker and worse in all its qualities than the black, being nothing more than that sort discoloured by maceration in water, as bits of the dark-coloured skin have sometimes been observed upon the grains, when in Europe. In choosing it regard should be had to the strength of its qualities, its soundness and firmness, and particular care should be taken that it has not been dyed white.

Long-pepper is the fruit of an East Indian plant, of the same kind with that which produces the black-pepper; which fruit is gathered unripe, and dried: it is of a round form, about an inch and a half in length, nearly the size of a large goose-quill, have numerous minute grains disposed round it in a kind of spiral direction. The whole fruit is of a brownish grey colour, of a texture not very firm, and it easily shatters to pieces by a blow; it is light, and when fresh broken has a disagreeable pungent smell.

Long-pepper is to be chosen in large full pieces, fresh, not broken, dusty, not worm-eaten; and such as after tasting, leaves a very lasting

heat in the mouth : when too long kept it is worthless, as it becomes rotten and dusty.

Maftich.—A concrete resin, obtained from the lentick-tree, by tranfverfe incisions made in the bark about the beginning of August ; it is in small yellowish white transparent drops of a resinous and rather aftringent taste, with a light agreeable fmell, efpecially when rubbed or heated ; in chewing it firft crumbles, foon after fticks together, and becomes foft and white like wax. It is to be chofen clear, of a pale yellow colour, well fcented, and brittle : fuch as inclines to black, green, or is dirty, muft be rejected : when free from impurities it totally diffolves in rectified fpirit.

Camphor, or camphire, a folid, unctuous, concrete, that is procured by boiling the branches and other parts of the tree which produces it. It has a fragrant fmell, and a fomewhat bitter, aromatic, pungent taste ; accompanied with an impreffion of coolnefs. A fpecies of camphor is likewise found, naturally concreted into little grains, in the medullary part of the camphor-tree. Specimens of this (in Europe) are only found in the cabinets of the curious. The Indians diftinguifh two kinds of camphor, a finer and a coarfer ; the latter is the Japanefe kind, before mentioned, procured by boiling : the former, produced in Borneo and Sumatra, is fo highly valued by the natives, that it is very rarely to be met with in Europe. The Japanefe value this fort fo much, that for one ounce of it they will give five or fix of what they make : and the Chinefe value it fo highly as to give 35 lb. for 16 ounces.

The tree, whence the Japanefe procure their camphor, is a fpecies of bay-tree, which grows to a large fize. They cut the root and moft tender fhoots into fmall pieces, which they put into large iron or copper kettles, placed over a moderate fire ; to thefe kettles they adapt earthen heads of a conical fhape with a rifing hollow neck, in which the camphor is received as it rifes : when the procefs is over, they knead this matter with their hands into cakes, which are what

we call rough camphor; these cakes incline to a brown or grey colour, and are composed of small grains, mixed with some impure matter; they are not very heavy nor very compact, but easily crumble to pieces; if these cakes be tolerably pure, they will, when set on fire, burn away and leave but few ashes, the fewer the better. The best package is an iron-bound cask, lined with tutanag, to prevent evaporation; into this the camphor should be closely pressed. This crude camphor the Dutch purify by pulverisation and farther sublimation, when it receives the appellation of refined camphor: it is in hollow, round, thin cakes, of the same form with the head of the vessel they were sublimed in: these cakes are composed of a delicate pure resin, perfectly clear and white, very bright and pellucid, moderately compact in texture, somewhat fat to the touch, softening and growing tough under the teeth. This refined camphor has a smell and taste of the same kind with the rough, but more acrid; a small piece of it will inflame the whole mouth, on chewing, and impress a sense of coldness at the same time: when pure it is more volatile than any other of the vegetable resins; insomuch that it will fly off wholly, by degrees, if exposed to the air: when set on fire it burns quite away, without leaving any residuum. The duties and charges render it unprofitable to bring home any refined camphor; the unrefined being easily purified.

The Aloes of this place are tolerably good, being the inspissated juice prepared from the fleshy-leaved plant of the same name: there are, however, three sorts, which we shall describe, and thereby enable the captain or supercargo to distinguish between good and bad.

Aloe Socotrina, brought from the island of Socotora, in the Indian Ocean, wrapt in skins, is of a bright surface, in some degree transparent, of a yellowish red colour, with a purple cast when in the lump, and of a golden colour when reduced to powder: it is hard and friable in winter, somewhat pliable in summer, and softens between the fingers: its bitter taste is accompanied with an aromatic flavour,

but not sufficient to prevent its being disagreeable; this smell is not very unpleasant, and is something like myrrh. To try its purity, boil four ounces in a quart of water, and it will dissolve into a dark coloured liquor: if adulterated the impurities will remain undissolved. If in the package of this drug there should be any mixture of rubbish, it will be more advantageous to cleanse it in India, the duty being paid by weight, and purity much advancing the price. The packages should not weigh more than 150 or 200 pounds, if not more than 100 it will be better. The purchaser should calculate his loss on the skins, &c. at double the real disadvantage: and the inside of the package should be greased, to prevent the aloes from sticking.

Aloe Hepatria is produced in other parts as well as in the east. The best is usually imported from Barbadoes, in ground shells; an inferior kind in kits, and a still worse in casks; this kind is generally darker coloured and less clear than the Socotrine, and generally more compact and dry, though sometimes quite soft and clammy, particularly the cask sort, its taste is intensely bitter and nauseous, without the aromatic flavour of the Socotrine, and its smell is much stronger, and more disagreeable. If any of this sort be brought from India, care should be taken that it be not liquid; a circumstance that lessens its value in England considerably.

Aloe Caballina, Cabaline or Horse Aloes, is easily distinguished from both the preceding, by its strong rank smell; in other respects it nearly agrees with the hepatic, and is not unfrequently sold in its place; it is sometimes prepared so pure and bright, as to render it difficult for the eye to distinguish it from the Socotrine; but it is quickly discovered by the rankness of the smell: should this also be dissipated by art, the aromatic flavour of the finer aloes is a sufficient criterion. But it will not be profitable to bring either cabaline or hepatic aloes from India.

Long Nutmeg and Cassia.—The long nutmeg, obtained in Borneo, is the false nutmeg; of which some account is given under the arti-

cle nutmeg, when treating of spices in general. Of the cassia it is to be observed, that it much resembles cinnamon in appearance, smell, and taste. It is brought to us in a kind of tube, into which it naturally rolls itself up in drying; these are sometimes of the thickness of the ordinary tubes of cinnamon, and of the same length; but usually they are shorter and thicker, and the bark itself also thicker and coarser; it is of a tolerably smooth surface and brownish colour, with some of red, but much less so than cinnamon; it is of a less fibrous texture and more brittle, of an aromatic smell and taste, truly of the cinnamon kind, but the smell weaker, and the taste much less acrid and biting; it is distinguished from cinnamon by this want of pungency, and yet more by its being of a mucilaginous or gelatinous quality when taken into the mouth and held there some time: there is some that inclines to a yellow, and some to a brown colour, but these varieties depend on accidents that do not at all affect its value. It is to be chosen in thin pieces, of an agreeable bitter and aromatic taste; and the best is that which approaches nearest to cinnamon flavour.

This bark, when good and fresh, dissolves in the mouth, on chewing, into a kind of slime; powdered and boiled in water it renders a considerable quantity of the fluid so thick and glutinous as to become of the consistence of a jelly on cooling.

The tree which produces the cassia-lignea is a different species of the same genus with the cinnamon-tree; it is separated from the branches of this tree in the same manner as cinnamon: they take off the two barks together in autumn or spring, and separating the rough outer one, which is of no value, they lay the inner bark to dry, which rolls up, and becomes what we call cassia-lignea.

DIRECTIONS

FOR SAILING FROM PASSIER TO BANJAR MASSEEN.

BEING in Passier-roads, and bound to the southward, Laper False bearing S.S.W. or S. by W.; the northernmost extreme of the land N. half E. or N.; and the extreme of Passier-river W. S.W. half W. the ebb tide setting to the southward, consequently at high water will be the best time to weigh, as you will carry a whole tide in your favour. The course out of Passier-river is E. by S. or E.S.E. nine or 10 miles; you will deepen your water regularly to 15 fathoms, from which depth steer S.E. until you are in 18 or 20 fathoms, and then a S. by E. course will carry you clear of Laper False in 14 or 16 fathoms.

When Tanjong Laper False bears W. steer S. having regard to the tides and currents, which are very uncertain in this track, and almost continually changing; a due attention to your lead is almost the only unerring guide. Continue a south course, and you will shoal towards Laper-point to 15 and 13 fathoms, mud and sand; but on no account come under 12 fathoms, in which depth you will be about five leagues distance from the point.

The reason for keeping so great a distance, is to avoid two sand-banks that lie E. of Tanjong Laper, and a bank of coral rock on which the Jane sloop, Capt. H. Glafs, was a-ground, and had only five feet water on the S. side of it.—Tanjong Laper then bore W. N.W. distance four leagues; and their latitude (observed when a-ground) was $2^{\circ} 11' S.$; under the gangway were five fathoms, under
the

the stern were 10 fathoms. This proves the above caution necessary, as the bank is steep to.

Lapar-point is easily known by a large tuft of trees that are divided nearly in the center, and appear like a large open gateway.

The distance from Lapar False to Tanjong Lapar is about 10 leagues, and you will have a mixture of mud, ooze, sand, shells, and coral.

When Tanjong Lapar bears N.N.W. steer S.S.W. half W. keeping from three to five leagues off shore in soft ground from 12 to 16 fathoms, until you are beginning to rise the north-point of the large river, which at first making will appear to be the S.E. extreme of the land, borrow on this point to two or three leagues, but do not increase your distance from it to more than five or six leagues until it bears W.; by which means you will avoid the banks and overfalls, already mentioned, that bear N. 74° E. and S. 74° W. from the north-point of that river, and in latitude $2^{\circ} 27'$ S.; distance from the point of the river to the bank about eight leagues.

Having the river fairly open, and the point bearing W. steer S. until the N.E. end of Pooloo Lout bears S. by W. or S.S.W. keeping in soft ground from 16 to 18 fathoms, and when the N.E. point of Pooloo Lout bears W. you will see the Ampats (or Four Islands) in the offing, bearing S. by W. or S. by W. half W.; distance six leagues. If you go to the eastward of those islands, come no nearer them than 22 fathoms; and if you go to the westward, come no nearer than 19 fathoms, as they lie in the stream of 20 and 21 fathoms, and are bold to on all sides.

The mid-channel, between the Ampats and Pooloo Lout, is the best track with a leading wind, and in it you will have 16 to 14 fathoms, mud, ooze, and fine sand.

When the Ampats bear E.N.E. and you are in 16 fathoms, steer S.W. three-quarters S. until a small rocky island, which is the easternmost

most off the south end of Pooloo Lout, bears W.; then haul gradually to the westward, and round the Rocky Island at two or three miles distance between 20 and 16 fathoms. The Rocky Island and the Dwalder bear N. 44° E. and S. 44° W. of each other. The distance from the Ampats to Rocky Island is 12 leagues; the southernmost of the Ampats lies in latitude $3^{\circ} 41'$ S.; and the northernmost in $3^{\circ} 38'$ S. and longitude $116^{\circ} 27' 15''$ E. of Greenwich. Rocky Island is in $4^{\circ} 7'$ S.; bearing from Dwalder, as above, distance 12 miles. Dwalder is in latitude $4^{\circ} 16'$ S.

Having rounded Rocky Island, steer W. and you will pass the S.E. island off Pooloo Lout, and the south end of Pooloo Lout at the distance Rocky Island was from you when it bore N. as they all bear E. and W. of each other. The distance from Rocky Island to the S.E. island is four miles; and from the S.E. island to the S. end of Pooloo Lout the distance is 13 miles.

There is a large high island which you will see to the W.S.W. called in our charts Monaveffa; and by the Dutch, Pooloo Lout Catchell: it bears from Rocky Island W. by S. one-quarter S. distance 18 miles: it bears from the S.E. island off Pooloo Lout S.W. one-quarter W. distance 16 miles; and from the south end of Lout S.W. one-quarter S. distance 12 miles. Should you shoal or get hard soundings, borrow on the island off Pooloo Lout to two miles distance, as the north is the best side of the channel. Between Dwalder and Pooloo Lout the soundings are 12, 14, to 16 fathoms, mixtures of sand and mud, shells, gravel-stones, and rotten stones; there is one small spot of shining black sand, like ink-sand or steel-filings.

Should you be obliged to turn through this place, be careful not to bring the island of Dwalder to the westward of W.S.W. as there is a bank of coral runs off the east point of that island, and reaches nearly to the Brothers.

Continue

Continue steering west, having regard to the currents, and keep between 12 and 17 fathoms mud and sand, and you will round Tonjong Salatan in 12 fathoms. As you near Salatan your soundings will be hard sand and gravel, with black specks like beaten pepper.

If bound to Banjar Masseen, keep the point of Salatan on board, distance three leagues, from nine to seven fathoms, till Tonjong Salatan bears N. half W. it will be then in one with the centre of Pooloo Dattoo. Endeavour now to keep in 12 fathoms, to avoid the overfalls off Pooloo Dattoo, till that island bears N.E. then steer N. or N. half E. and keep the eastern shore on board in eight, seven, or six fathoms, till you see the entrance of Banjar river; then steer so as to bring the east point of the river N. three-quarters E. keep it on these bearings till you rise the west point of the river, and come to at the foot of the bar in six fathoms soft mud.

Care must be taken that you do not mistake the east for the west point of the river, as the east point makes like a low island, and you will run six or seven miles before you rise the low land that joins it to the other part of the coast; you will nearly, at the same time, see the west point of the river.

Be careful to keep soft soundings in all this track, by hawling to the eastward or westward; for where there are hard soundings there are coral rocks, some of which are not many feet under water. The above track of eight and six fathoms, and a constant attention to the lead, is the best guide.

The flood here scarcely makes any current, it only makes a slack water, but the ebb runs strong, occasioned by the freshes from the river.

Tombanjou, or Tombornio, is in latitude $3^{\circ} 45' S.$ To anchor in the roads keep in seven fathoms mud, till the flag-staff bears E. half S.; run in for the fort, and come to in four and a-half or four and a quarter fathoms; distance off the river's mouth two and a-half

or two miles. Here your boats may get water almost at the fort gates, and make a trip with ease every 24 hours. There is plenty of fowls and ducks to be had here, and fish, both fresh and salt, equal to any in India.

In watering in this river, or for boats going in or out, attention should be paid to the tides; as there is a shallow bar to cross over which a boat cannot float though light, or empty, until after first quarter flood, nor after last quarter ebb: and should it be necessary to endeavour to drag the boat over the bar, by getting out, care should be taken that the people have shoes on, and not barefooted, as there is a poisonous fish or prickle (the insect is not known) which wounding the people in the feet, brings on an immediate swelling in the leg, with violent inflammation; shortly causing, from the violent inflammation and pain, delirium and death, no antidote being hitherto known for its cure, even by the natives; who will not go into the water, upon the bar, for any consideration.

DIRECTIONS

FOR SAILING FROM BANJAR MASSEEN TO BATAVIA.

In latitude $4^{\circ} 0' S.$ there is a bank of hard sand; when on it, in three and a-half fathoms the high saddle on Tanjong Salatan will bear N.E. one-fourth E.; distance about 15 leagues.

To avoid this bank, do not reduce your latitude under $4^{\circ} 10' S.$ till you rise the low land of Tanjong Salatan from the deck, then keep the eastern shore on board, as before directed, in eight or six fathoms mud; and by this means you will go clear of the banks and over-

falls

falls on the west side of the channel, where there are many, and their situation not known.

Leaving Tombanjou, steer S. by W. or S. half W. between 16 and six fathoms, until you near Pooloo Dattoo; do not come nearer this island than nine fathoms; and being in latitude $4^{\circ} 10' S.$ shape your course for Carramon Java, the latitude of which is $5^{\circ} 54' S.$ longitude $109^{\circ} 33' 30'' E.$ of Greenwich, and bears from Tanjong Salatan S.W. by W. half W. distance 103 leagues.

The reason of running to the southward, so far as $4^{\circ} 10' S.$ is to avoid a bank of dry sand, on which Capt. Lindsay had nearly run aground, in latitude $4^{\circ} S.$; he had from 16 to three and a-half fathoms on the edge of the bank, and could just see the island of Borneo from the deck, bearing N.E. one-fourth N. distance 14 or 15 leagues.

From Carrimon Java shape a course for Boomkin's Island or Pooloo Racket, which bears from Carrimon Java W. half S. so as to go without the reef of rocks that lie without that island two and a-half or three leagues, many of which are above water. The latitude of this reef is $5^{\circ} 57' S.$ and when in one with Pooloo Racket, bore S. 30 W. you have 26 fathoms one and a-half or two miles off it, and you should not come nearer. Pooloo Racket lies in latitude $6^{\circ} 1' S.$

From Pooloo Racket steer W. or W. southerly for the little island Edam, which will bear, when on with Bantam-hill, S.W. by W. Pass this island at any convenient distance, not less than two cables length.

DIRECTIONS

FOR SAILING THE NORTH-WEST COAST OF BORNEO, FROM PI-
RATES-POINT TO THE RIVER AND TOWN OF BORNEO.

FROM Pirates-point, which lies in latitude 7° N. to Batoomandee, Washed-rock point, are several bays, where ships working up and down the coast may anchor safely, and get water from the shore. In the chart is one nameless point, almost half way between the two points already mentioned: it is very well represented, with a bay to its southward; many sharp pointed black rocks peep above water off this point; but they may be approached within a quarter of a mile; and there is good landing to leeward if the monsoon allow; with large plains and plenty of deer. Just to the southward of Batoomandee is a commodious bay, at the mouth of Pandaffan-river, which has a good bar: farther on is the bar of the great river of Tampassock, on which at times the surf breaks very high: next is Abia-river, the bar of which is smooth, the island of Ufookan lying before it; and will admit a vessel of 14 foot water in the springs: the passage is to the northward of Ufookan; the island proving at low water a peninsula; leaving, consequently, no passage between it and the main. Between this island and Ambong harbour a bay opens, where is good riding in the north-east monsoon.

Ambong harbour is large and commodious, having good depth of water, with a button-like island, well laid down at the entrance of it: keep that island on the right hand and you will come into a fine harbour on the south side close to some salt houses. From this harbour, proceeding southwards, you pass the mouths of the two rivers

Salaman

Salaman and Tawarran, and approach Dallid-point. From this Kaitan-point bears S.W. by W. five miles, and Mancabong river runs between Kaitan-point, which is bold and bluff. When it bears eastward of south, and not before, coming from the northward, you will open four islands, the first pretty high, called Pulo Pangir, keeping either close to it, or in mid-channel between it and the land next to the southward of it, which is the proper Pooloo Gaya.

Pooloo Gaya is an island six or eight miles round, and being very near the main land, appears from the sea to be part of it. The channel which separates it from the main is said to have deep water; but that which Capt. Forrest passed, in a boat, was full of rocks. It is impossible to miss the passage into the above bay if the ship be kept to the southward of Pooloo Pangir, between it and Pooloo Gaya. The next island to the northward of it is Pooloo Udar Smaller; the next to it Little Udar, still smaller; the fourth and smallest is named Pooloo Priu, these three are almost joined to the fourth and southernmost by reefs of rocks, with an intricate channel between Pooloo Pangir and the next to the northward of it. N.E. of Pooloo Pangir runs a reef, on which a China junk was lost many years ago; her rudder sunk in three fathoms water, upon coral rocks. In the N.E. part of this bay is said to be a good harbour, and with a smooth bar, as discharging itself into it a river called Labatuan. To the southward of Labatuan is Inanan, which has also a smooth bar, but it is very shallow. Patatan lies to the southward of Pooloo Gaya, and entirely out of the bay; its bar is smooth, but likewise shallow. Three or four miles up the river Patatan stands the town, the houses about a hundred, fronting the water. Above the town are many pepper gardens, belonging to Chinese, in a delightful country. Further down the coast is Papal-river, the banks abounding with cocoa nut trees, in so much, that during the floods many nuts are driven to sea. Steering on from Pooloo Gaya, S.W. by W. you approach Pooloo Tiga, and the point of Keemanees. Pooloo Tiga is so called,

called, as consisting of three islands, pretty close, and of a gentle slope, each having an even outline, and a fine white beach: they bear from Keemanees-point N.E. by N. two leagues; this point makes a bay to the eastward of it, so deep that from seven fathoms water, muddy ground, the point bears N.W. by N. with smooth water. During the S.W. monsoon, at the point of Keemanees appears a rock, like a house, with a bush or two at the top; it terminates a very rocky point, at the distance of a mile off, which is but two fathoms water: it must not therefore be approached. A dry sand bears from it, W.N.W. about six miles. Pooloo Tiga lies in latitude $5^{\circ} 36'$. From the rocky point of Keemanees, Pooloo Labuan bears S.W. about six leagues. The proper passage towards Borneo-river is without this island; within is shoal water, two and a-half and three fathoms, sandy ground; there may, however, be deeper water. The island Labuan, beheld from the N.E. forms the semblance of two hummocks. A remarkable rock like a two-masted vessel, lies W.S.W. of it, at some distance from the Borneo shore: keep mid-channel, between Labuan and this rock, steering S. In this channel you will see low land right a-head, not unlike a clipped hedge. A little way in land to the right, is a peaked hill; when this hill bears W. or to the northward of W. haul in for the channel which goes by Pooloo Mara, a low island, bearing from Labuan S.S.W. 10 miles. To the northward of Pooloo Mara runs a spit of sand three or four miles; be sure to keep within it, in soft ground; as on the spittle sea often breaks very high; the channel is then close by Pooloo Mara, which must be left on the right hand; hence many fishing stakes extend towards the river's mouth, having the appearance of so many masts.

Pooloo Chioming (Glass Island) bears about W. by S. eight miles from Pooloo Mara, keep in soft ground; but here it would be proper to get a pilot, or at least to anchor and explore the channel. In passing Pooloo Chioming you must keep close to the island, leaving it

it on the left, to avoid an artificial bank of coral rocks, piled, doubtless, for some purpose. It dams up the water a little, and is visible at low tide. From Pooloo Chioming it is about 10 miles to the town of Borneo, in a S.W. by W. direction, round a small island. Being up with this island, which you must leave on the right, appears a branch of the river, from the left or S.E.; keep to the right, and finish the mile to town, whither can come up junks of six hundred tons.

DIRECTIONS

FOR SAILING INTO BATAVIA ROADS FROM THE NORTHWARD.

HAVING passed the island of Edam, run in to bring Batavia church south, then steer S. half W. for the roads, and anchor in six fathoms, the church S. three-fourths E. distance off the entrance of the river two and a-half or three miles.

DIRECTIONS

FOR SAILING INTO BATAVIA ROADS FROM THE SOUTHWARD

TO GO TO THE EASTWARD OF THE LABYRINTH OR THOUSAND ISLANDS.

BEING to the southward of Pooloo Baby, steer E. by S. and E.S.E. for Pooloo Lacky or Mancater's Island in soundings from 15
to

to 10 fathoms, and round Maneater's Island at two miles distance, taking care not to come under five fathoms near that island; then steer E. half S. or E. by S. for Middleburg, coming no nearer that island than 10 fathoms, or nearer to the beacon on Oujong Java than eight fathoms. In this tract you have eight and nine fathoms, till you begin to haul up from the Middleburg (close to which is deep water) for Onrooft, then steer for the westernmost crane on Onrooft; and being abreast of it, steer so as to give Kyper's Island a birth of half a mile. Being clear of Kyper's Island, steer S.E. by E. for Ryland's Beacon, or S.E. half E. for the ships in the roads; then come to in six and a-half or six fathoms, the church bearing S. half E.

SOME ACCOUNT OF BATAVIA AND SAMARANG.

Immediately on your arrival your first visit should be made to the Shabunder, to whom you should give a true invoice of your goods, (opium excepted); the whole of which should be reported to him, and offered for sale to the Company.

As this article is a monopoly of the Company's, care should be taken how you proceed. The Shabunder will tell you what day the Council meets, and if you think proper you may report your own cargo, and petition for the Council's permission to dispose of it. The Council will perhaps take all your opium at 500 rix dollars per chest, or may perhaps order you out of the roads; in this case recourse must be had to smuggling. While you are delivering your cargo you must sign a certificate for the behaviour of your officers and people, at the forfeit of your life, that you, nor none of your crew, will smuggle opium or spices, directly or indirectly; for which reason you are to follow these rules: viz. you must first find out whether the Fiscal or Shabander have any opium of their own on their hands; if they have you can do no business, as they will keep

keep too good a look out, and have armed cruisers near you; but if they have none, you may succeed by offering to deliver any quantity at any of the islands for them. The best and only safe men (besides these) to deal with, are their underlings; viz. the Bos at Onroost; the Chinaman that farms the duties and lives at the Boom; the Whipper-in at Edam; and the Vizvis at Kyper's Island.

If the Company take your opium they will offer you paper in payment; but if you find they are much in want of it, you must endeavour to make them pay you in cash; which, if they do, they will offer rupees; but the offer of rupees is a certain indication of their being in want of it, and you must insist on having Spanish dollars; at all events you should not let them have opium without paying half cash.

If you arrive early at Batavia, agree with the Cashier, or the Shabundar, to discount all the paper you may receive at the then discount. The discount of the year 1789 was from 18 to 25 per cent.; but by agreeing as above, I got all my paper discounted at 18 per cent.; for as soon as the Macao ship arrives, or any English ships, the discount immediately rises. Paper being only payable at the castle of Batavia, it is of no service any where else.

If you succeed in smuggling, the real specie will be paid. You will sometimes get pepper and some tin at Onroost; the former is generally from 12 to 16, the latter from 18 to 22 dollars per pecul, to be paid in cash. If spices are to be had, pay one Spanish dollar per catty; or if Company's paper is taken at par for them, pay one and three-quarters rix dollars per catty, but no more. This I conceive would be a good article at China; for, as the duties are taken of teas in Europe, I do not believe the India commanders can speculate much in that article, and they would be glad to get spices by way of remittance. Good cinnamon will always fetch from 12 to 14 shillings per pound, cloves something more, nutmegs something less, and mace from 20 to 25 shillings in England; so that the commanders knowing this, will always prefer spice to any other article:

moreover, the Chinese give a reasonable profit if the spice is good, free from insects, and well bought. The junks of China which trade to the Philippines and Celebes bring great quantities, but not sufficient for the consumption of that large empire.

Customs.

The customs and duties are arbitrary, and for impositions there is no redress. The Company's customs are generally eight per cent. the Weighing-master one, the Hotel one-half, and the Cashier one-half per cent. The Administrator, or warehouse-keeper, has one ducatoon for each package that is landed, whether great or small.

Exports.

Tin and pepper are sometimes to be had.

Arrack procurable at all times.

Sugar sometimes from the Company only.

Rice is to be got at most times, but at a high price.

By applying to the people before mentioned you may be able to smuggle some Japan copper, cordage, canvas, and spices; this must be done privately, as it is contraband trade.

The relations of amity being again established among the powers of Europe, and our conquests in the eastern archipelago about to be restored to the Dutch, we shall soon behold the whole trade of the Moluccas in the hands of that industrious people. The French, perhaps, by secret treaty, will obtain, on favourable terms, some participation. Notwithstanding of this, and that we shall be deprived of that lucrative branch of commerce, the country ships of India who frequent the eastern seas, will at all times be able, by indirect means, to obtain some spices, either from the natives or from the Dutch themselves. It is therefore not improper to give such instructions in the choice of spices, as may prevent imposition in the purchase of them.

The

The Nutmeg and Mace.—The male nutmeg is most esteemed by us. The fruit of the male species is fleshy, much like an apple, and has only one cell, which contains the nut. The fruit of the female, or second sort, differs, it being pear-shaped; the nut likewise is larger, and the outer covering opens only at bottom. This nut, inclosed in a red skin, which is the mace, or as it is often, though improperly, called, the flower of the nutmeg, fills the hollow as completely as a walnut does its fleshy coat; the mace only covers the nut in part in several wavy stripes or patches, the traces or marks of which plainly appear on the nutmeg itself, after it is made clean for sale and use, by being shaken about in a bag, or some other process, so as to hull or husk it, and bring it to the state in which we see it and the mace. The outer shell, in ripening, opens first on one side, and discovers the nut covered with its mace: afterwards the bottom opens, and the fruit falls out. The mace is prized much above the nut itself, as being more aromatic. The fleshy outer covering has a sharp or eager taste, which is disagreeable to Europeans, but it is eaten with pleasure by the natives.

There are two species of pigeons who live on nutmegs, but probably it is only this outer or fleshy substance that affords them any nourishment; for as to the nut itself they void it whole, and so little altered by passing through the digesting organs of the bird, that it is no way impaired in its vegetative powers. Hence it happens that these birds flying from one place to another, and from isle to isle, multiply the nutmeg-tree wherever they frequent. The coat of the third sort (the false sort, or that which is not aromatic) is wrinkled or shrivelled, and is never bigger than an hen's egg. The nut which it contains is elliptical, and less than the former sorts and much more taper; it has no aromatic flavour or taste, but is like to that of our nuts: the mace which envelops it is of a dull red; the leaves of the tree are commonly a foot long.

The Mace is a thin, flat, membranous substance, of a lively red-

dish yellow saffron-like colour, enveloping the nutmeg. The mace, when fresh, is of a blood-red colour, and acquires its yellow hue in drying, which operation is performed in the sun, upon hurdles fixed one above another. This spice has a pleasant aromatic smell, and a warm, bitterish, pungent taste: it is of an oleaginous nature, abounding with the same kind of oil as the nutmeg, but thinner and in a greater quantity. It is to be chosen fresh, rough, oleaginous, of a fragrant smell, and of a bright reddish yellow colour. The state it is in when packed up should be particularly attended to: if it be too dry it will be broken, and lose much of its fragrance; if too moist, it will be subject to decay and breed worms.

The Clove plant is a shrub, which grows in the Molucca islands, in a pyramidal form; its leaves stand opposite, are pointed at each end, smooth, and waved at the edges, and are held on by a red foot-stalk about an inch long; this foot-stalk is the most aromatic part of the whole plant, the clove itself not excepted. The flowers grow in bunches at the extremity of the branches, supported by a calyx divided into four, and consists of four petals of a bluish colour, veined with white, round at top, and concave; these petals adhere to the calyx as well as the stamina, which are numerous. The pistil, furnished with a style and terminated by a stigma, lies concealed at the bottom of the calyx, and becomes an oviform fruit, of a reddish colour, which contain a single lodge, and generally has two almonds. The bark, roots, and leaves, are all aromatic; it delights and succeeds only in moist situations.

The first species of false clove, that is not aromatic, differs from the foregoing only in its leaves, which in this species are mounted on long foot-stalks, rounded off at their upper extremities, and of a pale green colour: the whole tree is void of any fragrance, and its clove is very bitter.

The second sort of false cloves differs from the foregoing only in its calyx, which is in four divisions, exceedingly long and pointed at

its base: the tree resembles the laurel: the extremities of its numerous branches are loaden with a prodigious quantity of flowers, which change from white to green, and finally grow red and hard, in which state they are denominated cloves. When gathered the clove becomes of a deep brown, assuming a dark yellowish cast as it dries.

To gather the cloves, the boughs of the tree are strongly shaken, or they are beaten down with long reeds, into large cloths spread to receive them: they are afterwards either dried in the sun or in the smoke of the bamboo cane. The ungathered cloves that escape notice or are purposely left, continue growing till they are about an inch in thickness, when they are called mother-cloves, and falling off, produce new plants, which do not bear in less than eight or nine years. The Dutch preserve these while fresh by way of a sweet meat. To be in perfection the clove must be full-sized, heavy, oily, and easily broken, of a fine smell and hot aromatic taste, so as almost to burn the throat; the colour should be very dark, and when handled it should leave an oily moisture upon the fingers. While fresh, the clove affords a very fragrant, thick, reddish oil, upon simple pressure.

The Dutch often distil parcels of cloves to the loss of nearly half their substance; they then dry and mix them among those that are fresh, from which the impoverished ones extract part of their virtue; by this mixture the purchaser is more readily deceived: but when the cloves are examined, those which have once lost their virtue always continue not only weaker than the rest, but a much paler colour; and whenever they look shrivelled, having lost the knob on their top, and are light and pulverable, it affords good reason to suspect that this has been the case. The Dutch sell them by weight; and knowing they become considerably heavier by imbibing water, a very unfair advantage is made of it.

When a quantity of cloves are ordered, the bags are hung over a
vessel

vessel of water a certain time, and an addition of several pounds weight is thus made. In the spice islands, a bag of cloves in one night's time will attract so much moisture that it may easily be squeezed out.

The valuable island of Ceylon being now become, by treaty, an appendage to the British empire, and the Dutch in consequence deprived of the trade in cinnamon in that quarter, we shall forbear, in this place, making any remarks on the choice or quality of that spice, leaving it to come under the head of British Exports.

Arrack is spirituous liquor, bought at Batavia or Malacca. This is a branch of trade of which the Dutch have almost deprived the Portuguese, the art of making it being transferred, for the most part, from Goa to Batavia. The best arrack in Batavia is sold for about fifteen-pence the gallon.

The Goa arrack is made from a vegetable juice called Toddy, which flows, by incision, from the cocoa tree. The Batavia arrack is made from rice and sugar. There is likewise a shrub from which arrack is made. The manner of making the Goa arrack is this: The juice of the trees is produced, by the operator providing himself with a parcel of earthen pots, with bellies and necks like our ordinary bird bottles: he makes fast a number of these to his girdle, and any way else that he commodiously can, about him: thus equipped he climbs up the trunk of a cocoa-tree, and when he comes to the boughs, he takes out his knife, and cutting off one of the small knots or buttons, he applies the mouth of the bottle to the wound, fastening it to the bough with a bandage: in the same manner he cuts off other buttons, and fastens on his pots, till the whole number is used: this is done in the evening, and, descending from the tree, he leaves them till the morning; when he takes off the bottles which are mostly filled, and empties the juice into the proper receptacle: this is repeated every night till a sufficient quantity is produced, and the whole being then put together is left to ferment, which it soon does. When the fermentation is

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over,

over, and the liquor or wash is become a little tart, it is put into the still, and a fire being made, the still is suffered to work as long as that which flows from it has any considerable taste of spirit. The liquor thus procured is the low wine of arrack, and this is so poor a liquor that it will soon corrupt and spoil if not distilled again. To separate some of its phlegm, they therefore immediately after pour back this low wine into the still, and rectify it to that very weak kind of proof spirit, in which state we find it. The arrack we meet with, notwithstanding its being of a proof taste, according to the way of judging by the crown of bubbles, holds but a sixth and sometimes but an eighth part of alcohol or pure spirit; whereas our other spirits, when they shew that proof, are generally esteemed to hold one half pure spirit.

SAMARANG.

I know little of this place but from report. It is esteemed the best part of the north-east side of Java for trade; and from its vicinity to the Celebes, I imagine it would be the most probable place to get spices at, or the first quality of birds nests, of any port I either know or have heard of. A good bird's nest is about the size of a small China tea-cup, almost as white as writing-paper, and as transparent as isinglass, a very few downy feathers hang about it, and this is the only kind you ought to take. The price depends in a great measure on the quantity for sale; but as it is a rare article, you seldom get them for less than 10 or 12 Spanish dollars the catty. And at China they sold, in 1789, for 24 Spanish dollars per catty.

The common black nest may be got anywhere to the eastward; they are full of feathers and dirt, and will cost from five to seven Spanish dollars per catty; they are not always a certain sale at China.

The bird which forms this nest is a kind of swallow, the upper part
of

of whose body, including the head and tail, is of a dark colour, and the under part is white; its head is small, its bill short, thick, crooked, light-blue, and shining; its legs are short and slim; the wings are long, extending beyond the tail. These swallows frequent the high rocks, where they build their nests.

These nests differ from each other in size, thickness, colour, and weight; their diameter is commonly three fingers breadth on the top, and their perpendicular depth in the middle seldom exceeds an inch. The substance of these nests is white, inclining to red, somewhat transparent; their thickness is little more than that of a silver spoon, and their weight is from a quarter to half an ounce; they are very brittle, and have a shining gummy appearance internally when broken: as the industry of the bird applied the matter which composes the nest in small glutinous pieces at intervals, the nest seems wrinkled, or slightly furrowed on the surface. This description must be understood of those nests that are dry, and have been some time kept; while they are attached to the rocks or other places they are more pliable, larger, and heavier.

These nests are composed of an animal substance, which the birds procure on the shore when the sea ebbs. They fix on a kind of star-fish of a gelatinous consistence, of which each conveys a bill full to the place destined for its nest, applying it by threads one over the other at several times, and flying backward and forward till the work is completed.

Some persons assert that the birds get the glutinous matter from oysters, or other shell-fish that abound in those seas. It is not improbable that these swallows procure the materials for their nests both from the star-fish and shell-fish, their strong crooked bills demonstrating their capability. A nest bears three denominations, head, belly, and foot; the latter is yellow, dirty, and has many feathers in it, being the part which sticks to the rock; the belly is yellow, but free from dirt; the head is white and transparent,

parent, and twice as valuable as the feet. A nest should be chosen dry and very brittle; if moist it will be tough and pliable, the foot and belly may, with pains, be made head, by picking the feathers and washing the dirt out, and laying them in the dew on moonshiny nights, which will whiten them by degrees; but if the sun come to them they then grow yellower and spoil.

You are on this coast liable to be attacked by pirate buggefs prowes, and should be prepared accordingly. If you are obliged to go to Borneo to get rid of your opium, on your return, if after July, call at Samarang again, the spice ship generally touches there in her way to Batavia, and you may perhaps pick up some.

ACHEEN.

The custom at Acheen is, on your arrival, to go immediately on shore, taking all your samples of goods you have to sell; and enquire for Dattoo Karkune, and Noquada Po Sallee, the Shabundar or Harbour-master. The latter can do any thing with the king. Shew your samples to them, and agree about the prices. It is not necessary to pay your respects to the king, until you have agreed to sell, and are sworn, which is a formal ceremony, performed by the king's people, and administered by your taking his knife or crease in your hand, and salemming with your face to the eastward, lifting the crease at the same time.

You pay no duties on any sales made to the king. On all purchases of gruff goods, such as brimstone, beetel, areka or beetel-nut, rattans, benzoin, horses, camphor, &c. the king's duties are six per cent. The other petty duties for the Dattoo, Shabundar, Toquadar or Assay-master, amount to three pence halfpenny or four pence per cent. But whenever you purchase from, or sell, to the king, be sure to agree with the Dattoo (or king's merchant) to be free of all duty, or he will impose it upon you for his own emolument.

The presents at Acheen are large, if you do business. To the king should be given

A long shawl,

A piece of gold-end fine muslin,

A carboy of rose water,

A pair of gold slippers,

A piece of fine coffas,

A piece of fine baftas,

A small barrel of gun-powder, and a handsome fufee, if you have arms to sell.

To the Dattoo (or king's merchant), and Shabundar, your presents must be, in proportion, very genteel: for the king, professing himself to be a soldier, does not affect to be troubled with merchandise, but leaves the traffic to these two men; with whom you will find it your interest to be upon good terms; and see them, after your first present, with trifles occasionally.

These men are fond of parade and attention; it will be therefore necessary, whenever they pay you a visit on board, to salute them, on receiving them, with three guns; and the same at their departure: indeed, this is expected by every man upon the Malay coast who holds any rank or appointment under the king, wherever you are.

They weigh all their weighable goods with a dotchin or wooden steelyard, except gold, which is weighed with a pair of small Chinese scales, and a buncal generally made of lead, and often covered with a thin brass case; but it will be necessary you have a dotchin and scales to check theirs by.

It will be absolutely necessary to have a Tochadar * (or assayer) to try your gold (if paid in that metal), and to have the king's chop or seal upon it; and beware of imposition.

* On this subject, attend to what is hereafter mentioned in regard to the Touch Needles of China.

Never carry more goods on shore than you have orders for, at one time; and as you sell them off receive the returns, and give no credit on any account; for if you give credit, even to the Dattoo, you will probably lose them.

Houses are always ready for hire; but if your sales are made to the king he furnishes you with a house, gratis, till his payments are finished; after which time you must hire the same, or some other, from the Dattoo; for which you will pay from one to two buncals of gold for the season, or while you stay there. A buncal of gold is valued at twenty-four Spanish dollars.

I would advise, in all cases, to be particularly careful of your ship while in the roads; for the Acheenese are connected with the people and pirates on the Pedir coast; and if they find you unguarded will give them information, and you may thereby lose your ship.

You run no risk on shore but of fire, though it may be proper to have, besides your servants, two or three Seapoys or Europeans with you; and particularly if you have any quantity of goods unfold, it will be also necessary to keep fire arms in your house; and the shew of being always prepared to repel, may be the cause of preventing an attack.

Good betel-nut is procurable here, of which the following account will be necessary:

Araca, or Areka, the Betel-nut, with the leaf, which is chewed with it.—Areka is a fruit universally sought after throughout the east, from the Indus on the west, to the empire of China; but it is not a commercial article in Europe.

The areka is the produce of a tall thin tree of the palm kind. The shell which contains the fruit is smooth without but rough within, resembling the cocoa-nut, and being about the size of a green walnut; the kernel is near the size of a nutmeg, much resembling it externally, and having, when cut in two, the same veiny appearance; in the centre of the fruit, while it is soft, is contained a greyish and

almost liquid substance, which hardens as the nut ripens. When ripe and fresh this fruit is astringent but not unpalatable, and the shell inclines to a yellow colour. The chief use made of areka is to chew it with the leaves of betel, mixing therewith a chalk called chunam, and sometimes other perfumed compositions. The betel-leaf is universally used with the nut; it is produced at all entertainments and visits among the natives, and even to Europeans, some of whom, especially the Portuguese, have adopted the habit. The preparation must necessarily consist of three ingredients, the betel-leaf, the areka or betel-nut, and chunam; for wanting any of these, that deep red colour, which results from their mixture in mastication, would also fail. The betel-leaf is something like that of a laurel, and grows upon poles like the hop; this leaf is full of large fibres, which, with the middle one, are generally stripped off by the finger-nail; it has a hot biting taste, not unpleasing to those who are used to it.

The chunam is only burnt lime, made of the finest shells: it is kept in gold, silver, and metal boxes, and must be moistened for use. The catechu, chewed with the betel-leaf and chunam, is the decoction or juice of different astringent trees, but particularly from the areca or betel-nut: it is improperly called *Terra-japonica*, or japan-earth; and is the inspissated juice of an East Indian tree of the palm kind. We meet with this substance in regular flat cakes, shewing a smooth, brown, shining surface on breaking, in the best specimens, and being frequently mixed with sand and other impurities to the quantity of an eighth part. There is a finer kind, rarely to be met with, composed of fine thin flakes, lying regularly over each other, and quite pure. This drug is known by several names in India, rhaath, cate, catechu, &c. It is prepared from the decoctions and juices of different astringent trees; but the most esteemed is that prepared from the areka, which sort is chewed with betel and chunam. Catechu has little or no smell, and a sweeter astringent taste than most substances

stances of that class. The finer kind readily melts in the mouth, the coarser more slowly with a burnt taste and gritty. The degree of purity this drug possesses, may be known by dissolving it in water: if perfectly pure it will be totally dissolved; if otherwise, the impurities will remain behind.

Catechu is dry and pulverable; externally of a reddish colour; internally of a shining dark brown, with a slight cast of red: the deepest coloured, heaviest, and most compact, is accounted the best.

DIRECTIONS

FOR THE COAST OF PEDIR.

FROM Acheen-roads to Tanjong Batoo the course is N.E. three-quarters E. distance 16 miles. In this track there is no danger at half a mile from the shore but what is above water. The small island of Pooloo Malour, which lies between Pooloo Way and Tanjong Batoo, bears N.E. from Acheen-roads, and is remarkable, by having a single cocoa-nut-tree like a flag-staff, and flag on it, and is steep to on the sides all round. Having rounded Tanjong Batoo, haul up E.N.E. and E. by N. for Tanjong Batoo Pootie, which is remarkable for a large white rock, like the ridge of a house off it; and being abreast of it, haul up east E. by S. and E.S.E. for Pedir-point. In all this track there is no danger at half a mile distance off shore; nor on any account exceed four or five miles off shore, for the bank is steep to, and the currents uncertain; so that should you lose your anchorage and meet with calms, which you will more frequently do a little way off than close in shore, you may lose in a few hours

all the advantage you have gained in as many days. I therefore advise keeping within this distance. Having run five leagues from Batoo Pootie-point, you will just begin to raise a remarkable bushy tree on the extreme of Pedir-point; and being close up with the point, will see to the S.E. of it a clump somewhat flatted at the top; close to the above there is a tree which has a round bushy top, and the contrast is too striking to be mistaken. Being abreast of Pedir-point, steer S.S.E. or S.E. by S. for Pedir-roads, and anchor with the Golden Mount (a high peak like a triangular haycock) W. half N. Mount Opkin will shew under and to the northward of it, and though a high mount is much lower than the Golden Mount, and will bear W. three-quarters N. or W. by N. Bring Pedir-point to bear N.W. or N.W. half N. and anchor in 10 fathoms. The river, though a very blind one, will bear S.S.W. or S.W. by S. and has a house at the extreme point. Boats at low water or spring tides cannot come across the bar at Pedir; and, on account of a heavy surf, it is necessary to wait for the first quarter flood to go in, and out again before half ebb. On the neaps, boats can go in and out at any time of tide.

Pedir is a place of some consequence, and exports great quantities of pepper and beetel-nut; the former of which is brought from places of less note, and the latter they cultivate and export themselves; which makes the trade on this coast go under the name of the place.

PEDIR.

The principal trade of this place and the coast to Battabarra, is areka (betel-nut), pepper, gold-duft, canes, rattans, bees-wax, camphor, and benjamin (or frankincense). The soil is fertile, and well watered with rivulets: but in the low land, next the sea, are bogs

bogs and marshes, which produce only reeds, rattans, and bamboo canes.

The animals here are horses of a small breed, buffaloes, goats, oxen, and hog-deer. There are several roots and wild animals in the woods and mountains, as tigers, elephants, rhinoceroses, monkeys, wild hogs, and spotted deer. There are also in this place guanas, alligators, porcupines, serpents, scorpions, and other venomous animals; and Sumatra is the only island in India where bears are to be found. There are all sorts of poultry, particularly ducks and fowls.

DIRECTIONS

FOR SAILING FROM PEDIR TO GINGAM.

THE course is S.E. three-quarters E. distance eight miles, a good bold coast; but in the mid-way between Gingam and Pedir a point off a river, called Cula Pedir, runs out a good way; but you may stand to four fathoms on it without danger; you soon deepen, crossing it either way; and in Gingam you have deep water close in shore. There is nothing remarkable to distinguish the river by, except the houses, which are pretty close to it, and the round tree on Pedir-point being just in sight from the deck.

DIRECTIONS

FOR SAILING FROM GINGAM TO AYRELABOO.

THE course is S.E. half E. distance five miles, and may be known by some cyprus trees on the east point. This is an inconsiderable place, being so near Gingam, from which place the Ayrelaboo people export the most of their produce. In Gingam-river, turning up a creek on the starboard or west side, is a place of some trade called Boorong; the principal man is the Shabundar (Meora Marean), who does the Raja's (Comajo's) business.

DIRECTIONS

FOR SAILING FROM AYRELABOO TO MURDOO.

THE course is S.E. by E. half E. distance seven leagues, a bold coast and free from danger. The river at Murdoo is very blind, and only to be known by a large tree on the point, and a few straggling sheds and houses. There are two cascades in appearance, that shew themselves plain in the rainy season, but appear like a path between the valley in the fair season; it is in reality the same stream of water, but appears like two falls, as the sight is interrupted by the trees.

DIRECTIONS

FOR SAILING FROM MURDOO TO SAMERLANGAN.

THE course is S.E. by E. distance four leagues; this is also a bold coast. Samerlangan lies quite in the Bight, Oujong Raja-point making one and Murdoo-point the other extreme.

DIRECTIONS

FOR SAILING FROM SAMERLANGAN TO PASSANGAN.

HAVING rounded Oujong Raja, steer E. or E. one-quarter N. taking care not to come under eight fathoms any where in this track: the distance is eight leagues from Oujong Raja. Passangan may be known by the river appearing to run directly through the point, and empties itself to the eastward. This is the first river that runs to the eastward: you will find a very great surf upon the point, as if a reef run off a long way; but two cables length from the break there is no ground thirty fathoms. You anchor to the eastward of the river; in 17 fathoms, Passangan-point (a very bluff one formed by a grove of cyprus trees) making one, and Pongafs-point making the other extreme of the low land. From those roads you will see the Golden Mount, appearing like a high sugar-loaf island, bearing W. one-quarter N. distance nearly 20 leagues.

DIRECTIONS

FOR SAILING FROM PASSANGAN TO TELISAMOWAY.

THE course is E. one-quarter N. distance six leagues. On first raising Telisamoway-point it makes it like an island; but as you near the extreme of the point you see a grove of straggling cyprus trees; the land near the sea, and that within the trees which border along the beach, is of a tolerable height. On the extreme of Telisamoway-point is a small square cluster of trees which makes it somewhat remarkable.—As you near the point, you will open the bay and see the houses and Bazar; hawl round the point at a convenient distance keeping the shore close on board; anchor in 10 fathoms, the point and N.N.W. half W. and the town S.W. by W. off shore half a mile.

DIRECTIONS

FOR SAILING FROM TELISAMOWAY TO COURTAY.

THE course is N.E. by E. one-quarter E. distance four leagues. By this course you will round the bay in regular foundings, and see the houses in Courtay-river very plain; anchor in five fathoms, with the river's mouth open. There are two rivers, Telisamoway and Courtay; but the exports are very inconsiderable, as they are all under one government, and the inhabitants dare not trade without leave from the Raja of Courtay and Telisamoway, who does every thing to engross the whole trade; and being absolute is much dreaded.

DIRECTIONS

FOR SAILING FROM BATTACARRAN-POINT TO POOLOO AURO,
TO AVOID THE DOGGER BANKS.

BEING clear of Frederick Endrick, and off Battacarran-point in seven fathoms, steer N. 10 leagues, and then N. half E. 10 leagues will lead you fair in mid-channel between the Seven Islands and Pooloo Taya. Steer N. by E. or N.N.E. until five leagues to the eastward of it; thence steer N.E. by N. to cross the line in 19 or 20 fathoms depth of water, and continue this course till in latitude $0^{\circ} 30'$ N. in order to avoid the Dogger Banks, which you may safely round in 24 or 25 fathoms fast; but you must not come nearer than 23 fathoms, as they are steep to in many places.

Having made your latitude good $0^{\circ} 30'$ N. and in 25 fathoms, steer N.N.W. till in the latitude $1^{\circ} 0'$ N.; and then steer N.W. by N. till you see Pooloo Auro; this course, if you do not steer to the northward of it, will lead you fair for Pooloo Auro in 36 fathoms, distance off four or five leagues.

DIRECTIONS

FOR SAILING FROM POOLOO AURO TO BATTACARRAN-POINT,
TO AVOID THE DOGGER BANKS.

FROM Pooloo Auro, distance four leagues, steer S.E. by S. till in latitude $1^{\circ} 0'$ N.; then S.S.E. until you have made $1^{\circ} 10'$ east meridian distance from Pooloo Auro; from this steer S. or S. half W. till in the latitude $0^{\circ} 25'$ or $0^{\circ} 20'$ N.; from whence steer S.W. by S. crossing the Line in 19 or 20 fathoms, this will lead you fair up to Pooloo Taya, which you will see bearing W. by S. or W.S.W. from six to seven leagues distance, if the weather is not hazy.

Should you increase your depth of water from Pooloo Auro to more than 22 fathoms, steer more to the southward and westward; but should you have less than 25 or 24 fathoms, haul to the southward and eastward, till you are to the southward of $0^{\circ} 25'$ N. This is a good track, either night or day, and may be run with safety in any weather. After crossing the Line you will decrease your water to 19 or 20 fathoms, and to 14 or 15 fathoms off the S.E. point of Lingin, which, if clear weather, you will see at seven or eight leagues distance; and from that to 12 or 13 fathoms off Pooloo Taya. From Pooloo Taya steer S. by W. or S. half W.; 20 leagues will carry you on the bank off Battacarran-point, giving Frederick Endrick a good birth; from which follow my former Directions for entering the Straits of Banca, and going round Battacarran-point.

Our charts lay down a great many more islands to the northward of Banca than do really exist: there is nothing between the seven
islands

islands and Frederick Endrick: and if you coast Banca between 15 and 18 fathoms, you may pass to the southward of Frederick Endrick and save much time. Follow my former Directions to pass between it and Carrang Hodjee.

DIRECTIONS

FOR SHIPS, WHICH HAVING LOST THEIR PASSAGE THROUGH THE CHINA SEAS, AND MEAN TO PROCEED BY THE EASTERN PASSAGE TO CHINA: OR FOR SHIPS FROM CHINA OR OTHER PORTS IN INDIA, WHICH ARE BOUND TO EUROPE, AND MEAN TO SAIL THROUGH SOME OF THE STRAITS TO THE EASTWARD OF JAVA, AND THEREBY TO AVOID THE ENEMIES CRUISERS.

THE shortest track for ships returning from the China seas with any of the above intents, is to follow the Directions for making Tanjong Salatan. When you are four, five, or six leagues to the eastward of Pooloo Auro, steer S.E. to make the island of Victoria, distance from Pooloo Auro 35 leagues. Victoria lies in latitude $1^{\circ} 39' N.$ The soundings in this track are 30 fathoms, white and grey sand. The island is covered with wood; on the S.W. side is a small bay or creek; and S.E. by E. distance three leagues from it, lies a small white island.

From getting sight of Victoria, you steer to the south-eastward to make St. Julians, which bears from Victoria S.E. by S. distance 18 leagues, and lies in latitude $0^{\circ} 49' N.$ You may coast this island at three or four miles distance. Being clear of this place, steer for the island of St. Barbes, which bears from St. Julians S.E.

S.E. by S. 16 or 17 leagues. Sailing in this direction, you see to the eastward a number of islands that lies about 13 or 14 leagues to the northward of St. Barbes; they are all high, but the northernmost is the highest. The island of St. Barbes, which is under the Equator, is high, and at first making it appear like two islands, the extremes being higher than the center, particularly the N.E. end, which much resembles a barn.

The island of St. Barbes is about three leagues in circumference, the greatest extent is from N.W. to S.E.; the N.W. point terminates in a peak, and, almost adjoining to it, are two small rocks. You may anchor to the S.E. of this island in 25 fathoms, and get wood and water.

From St. Barbes you steer S.E. by S. to make Suratoo or the Quoin, and Carimetia; these are two islands, with many to the southward and eastward of them, laying off the S.W. part of Borneo. The soundings you will find going this track are 26, 24, and 22 fathoms; and as you near Suratoo the water shoals to 20 and 18 fathoms. It is reckoned 24 leagues from St. Barbes to Suratoo, on a S.S.E. one-quarter E. course. Be cautious if you approach Suratoo at night, that you do not fall in with the N. or N.E. side of it, or between the island to the southward and eastward of it and Carimetia, where are many dangers.

Carimetia is an island very high and woody; it has a peak in the middle, which is generally cloud-capped, and about two and a-half leagues in length and one league in breadth; it is about 18 or 20 leagues from the river Succadana, on the W. coast of Borneo. From the S. point of Carimetia there runs a bank to the S.W. about one mile and a-half, or one mile.

Suratoo is W.S.W. of Carimetia, and between them is a sufficient passage, where a ship might run through if necessity obliged her, when she must borrow on the Suratoo side; but it is much better to pass outside to the westward of all.

These

These islands are all inhabited, and you may wood and water on the west side of Surattoo, and get plenty of stock, such as fowls and buffalo. These are procurable on a sandy plain, at the bottom of a mountain of a moderate height. You will anchor in 10 fathoms, muddy ground, in latitude $1^{\circ} 43'$ south.

Bringing Surattoo to bear west of you about two leagues, you steer to the southward and eastward to make Pooloo Mancap, which lies in latitude $3^{\circ} 3'$ south.

Six leagues to the S.E. of Surattoo you have 18 fathoms ouze, but soon afterwards find 17 fathoms sand, then 16 fathoms sand and ouze. In this track you see many islands to the eastward, and you must be cautious not to go further to the westward than 20 fathoms, on account of a bank which Captain Clement was on in the Walpole, lying 10 leagues S.W. of Pooloo Mancap. It is necessary also not to come nearer Pooloo Mancap than 14 or 16 fathoms; 15 and 19 is the best track.

Pooloo Mancap lies on the extremity of a bank which extends about six leagues S.S.W. from Borneo; it should not be approached too near, on account of the irregularity of its foundings. The tides are strong between Surattoo and Pooloo Mancap, for which reason you must be careful to guard against their effects, particularly during the night.

Ships bound to Europe through any of the straits to the eastward of Java, shape a course, after being clear of Clement's Shoal, for Carrimon Java; which lies in latitude $5^{\circ} 54'$ S. longitude $109^{\circ} 33' 30''$ E.

Those who are going the eastern passage to China may, after passing Pooloo Mancap, steer S.E. by E. or E.S.E. till in latitude $4^{\circ} 12'$, or $4^{\circ} 15'$ S. then steer east; and having made Tanjong Salatan, follow any one of the former instructions for going to the northward or southward of Monavisa, and so through the Straits of Macassar.

DIRECTIONS

FOR SAILING FROM BATAVIA THROUGH THE STRAITS OF
MACASSAR: WITH SOME REMARKS ON THE BRIDGWATER'S
JOURNAL *.

LEAVING Batavia road, and having the little island Edam bearing north, steer E.N.E. 60 leagues; then steer E. by N. to the latitude of $4^{\circ} 15'$ S. from which steer due east. Keeping in this latitude you will get sight of the Point Salatan, and about two leagues off will have nine fathoms water; under which water you must not near the Point, as it shoals suddenly to five fathoms. The latitude of Tanjong Salatan is $4^{\circ} 12'$ S.

Having the said point north 9, 10, or 11 fathoms, you will coast Borneo. Steering E. by S. 23 leagues, will bring you in sight of a high-peaked island, called Monavisa, which you leave on your larboard hand at two miles distance; but you may pass on either side of it. When it bears north you will have 16, 17, or 18 fathoms water.

In the westerly monsoon, in the months of December and January, the currents set strong to the E.N.E. between Borneo and Java.

From the island of Monavisa you steer E.N.E. half E. seven or eight leagues, which will bring you in sight of three small islands called Dwalder and The Brothers; the northern one is Dwalder, and the two southern ones The Brothers. You may pass to the north-

* The Author having seen a Journal of the Bridgwater through this track, apprehends that the land has been mistaken by that ship in passing; and as this Journal may fall into the hands of others, he judges it proper to notice the same.

ward or southward of Monavisa; I passed to the northward in the foregoing direction. Between Monavisa, Dwaller, and the Two Brothers, is a very good channel of 12 fathoms, clay and mud; when passed you will deepen to 20 and 21 fathoms, clay and mud. The latitude of Dwaller is $4^{\circ} 16'$ south, and the Brothers $4^{\circ} 24'$ south, bearing from each other N.N.W. three-quarters W. and S.S.E. three-quarters E.

When among these little islands, Captain Parker of the Bridgewater observes, "That you will see the N.E. part of Great Pooloo Lout bearing N.W. by W. and N.W. [I think Captain Parker must mean the S.E. end of Pooloo Lout, as the east side of that island could not be open to him in this situation], and the northernmost part N. by W. When you are past Dwaller and the Brothers, the current begins to run N.E. by E. and N.E. Under Great Pooloo Lout lies three large islands and one small one; but these islands lay close in shore off Pooloo Lout, and on the north side. [Captain Parker must here mean the south side, as at this time he had the south end of Pooloo Lout, bearing N. by W. although it was the northernmost part of that island which he could then see.] Therefore the S.E. of Pooloo Lout will be known by a small rocky island lying a little off from the point. From Dwaller steering N.E. by N. 10 or 11 leagues, will bring you in sight of three small islands, called the Alikeones. [These islands are four in number, and by the natives called Pooloo Ampats (Ampat signifies four in Malays), from their likeness and number.] Their latitude is $3^{\circ} 39'$ south; which three islands you leave upon your larboard hand at the distance of one or two miles. [You may pass on either side of them, having no danger but what shews itself; and good water, soft mud or clay soundings. These islands shew my conjectures to be right, in supposing Captain Parker to have taken the south end of Pooloo Lout for the N.E. and N. end.] The depth between Dwaller and the three Alike-ones, on a N.E. by N. course, is 14,

15, 16, 17, 18, and 19 fathoms, clay ground. Here the currents begin to set N.E. and N.E. by E.

“ From these islands, if possible, keep the depth from eight to 14 fathoms, coming no nearer the Borneo shore than eight fathoms, nor off more than 14 fathoms, until you are in the latitude of $2^{\circ} 10'$ south, then you are past all the dangers on the coast of Borneo. In 16 or 17 fathoms from the three Alike-islands are two sand banks that are even with the water's edge. [These I have already particularly described. Off the Great River their latitude is $2^{\circ} 27'$ S.]

“ From $2^{\circ} 10'$ south you will, upon an E.N.E. course, for a while have 14, 16, and 18 fathoms; but in $1^{\circ} 50'$ south, in sight of Borneo, you will have 22, 25, and 30 fathoms; and in latitude $1^{\circ} 20'$ south, 10 leagues off Borneo, you will find 28, 30, and 35 fathoms, clay and mud; in $0^{\circ} 4'$ south, you will have 45 and 50 fathoms 12 leagues off Borneo. The land hereabouts is very high, and may be seen a great way. In $1^{\circ} 0'$ N. you will see the coast of Borneo, distant six or seven leagues; and the N.W. part of the coast of Celebes, bearing E. half N. a great distance off, and no soundings. [In this situation I suppose the Bridgwater to be in longitude $118^{\circ} 50'$ E. and clear of the Straits of Macassar, properly so called.]

“ From latitude $1^{\circ} 0'$ N. we steered N.E. 24 leagues, and observed in $1^{\circ} 33'$ N. we found the islands of Banca and Zangier in latitude $2^{\circ} 15'$ and $2^{\circ} 20'$ N. [This island of Banca is not reckoned any of the Sunda islands.]”

DIRECTIONS

FOR NAVIGATING THE WEST COAST OF SUMATRA.

The N.W. monsoon generally blows very hard from October to January, and in some seasons, though not frequently, from September,

ber, which makes it very difficult to sail against it. In anchoring ground these winds do not always blow so hard, nor of long continuance to the northward of the Line, neither are they so frequent.

The S.E. monsoon is reckoned to blow in April, but seldom blows hard till the beginning of July, and then continues blowing till September, and in some years till October. In these three months, when you have fresh gales, you have no land winds; at other times you will have fine S.W. winds in the day, and northerly winds by night; however I have known very fine weather on this coast from the 15th of December to the 10th of February; but this was to the north of the equinoctial.

DANGERS.

It is said that all the shoals on this coast are white coral, and by keeping a good look-out may be seen a mile off; but this is a mistake, as there are many shoals of black rock, and scarcely to be seen, being six feet under water. The northernmost of these dangers that I know of, where ships have occasion to be, is at Passage Island; which island lies in $2^{\circ} 23'$ north, and on which the Nelly got aground though she drew but 10 feet water, but immediately got off again. I shall in these directions give the best account I can collect from all the journals and accounts I have seen and heard of.

TO FALL IN WITH THE LAND.

If you intend to touch at Tapanooly, it is common, and indeed necessary, to fall in with the land to the northward of the islands, that is about Labon, in latitude $4^{\circ} 8'$ north, and longitude $96^{\circ} 5'$ east of Greenwich, where you have good anchoring ground; but if

bound direct to Padang, I think you had better make Sumatra about the Line; as you have no occasion to go more to the northward, you will make more dispatch, and prevent much trouble. The reason I advise falling in with the land here is, because it is a very good roomy channel, and may be easily known; whereas further to the northward or southward you may entangle yourself with the islands. Make Pooloo Batoo, a low long island, off the S.E. end of which lie three small islands; give these a good birth of four leagues, and stand in for the land. You will, if clear weather, see Mount Ophir,* being a very high peak mountain like a sugar loaf; and you will see four small islands that lie in and off Ayre Bungy Bay. In this passage you may find great overfalls and rocky ground; I never was through; only what I have found in other instructions, and to be certain, would advise you to keep your boat ahead. For more minute particulars I refer you to the instructions following from Natal to Pedang.

DIRECTIONS

FOR TWO PASSAGES.

THERE are two passages, the one called the Outward, for which I shall refer to the Directory; and the Inner, which I think the best, as you may judge your distance better, and cannot over-run your port; although this is not so roomy, it is abundantly made up by good anchoring ground. Here, indeed, in the night-time you often cannot sail with a fair wind, while in the outer passage you may run night or day, there being little or no danger.

* This mountain is elevated 13,842 feet above the level of the sea, and may be seen 120 miles. Near to it is a volcanic mountain, not much inferior in point of height.

ANNA LABOO.

This place lies in latitude $4^{\circ} 8'$ north, (by Captain Kirton, by whose directions I am principally guided), and may be known by a high spot of trees that appears at first making like an island, and on which the king hoists his colours. You may stand here along shore from two and a quarter to five leagues distance, there being no danger. Between this and Banjack there is a small bold island, in latitude $3^{\circ} 16'$ north, called the Cocoas; however you may not see it, as it lies 12 or 14 leagues off the coast of Sumatra, in longitude $96^{\circ} 52'$ east of Greenwich. Pooloo Banjack may be easily known, being the next island you see with a peak on it; and this peak you will sometimes see before any other part of the island, and as you draw in with it you will rise two other hummocks. Steer about south, and you will see Pooloo Sago; this is a low island. Between Banjack and Passage Islands there is no passage. Keep these two islands on your starboard side, and off Sumatra 18 miles.

DIRECTIONS

FOR SOOSOO.

CAPE FELIX lies in latitude $3^{\circ} 48'$ north, from which Soosoo bears E. half S. distance four or five leagues. As this is a necessary land-fall, observe the land about the cape is low and even; you may coast it a mile from the shore and no danger. To anchor in Soosoo Roads bring Cape Felix to bear W. half N. the southernmost

most extreme of Sumatra S.E.; the houses of Soosoo N.E. by E. distance off shore two miles and a-half; and from Soosoo-river three miles, in 24 fathoms, soft ground and clear anchorage. In this bay is much foul ground and rocky bottom, with overfalls from 24 to 10 fathoms. In fine weather, by choosing a clear birth with your boat, anchor in six, seven, or eight fathoms, a mile from the river. Here are sometimes large quantities of pepper to be had for gold-dust; the Acheen-dust is the best.

PASSAGE ISLAND.

Passage Island is a low sandy island covered with trees, one of which constantly appears above the rest, and may be seen in clear weather four or five leagues off the deck; I have seen it at Sinkel, which is seven leagues distance. The coast forms a deep bay, called Bancongter, on which are several Malay ports. When in sight of Passage Island keep about eight miles off Sumatra, until you bring the island to bear S.E. by S.; then steer directly for it, until you are three-quarters or one-half mile from it; then steer along it to avoid a dangerous reef of rocks lying half way between the island and the main, and which extends along Sumatra from N.W. to S.E. near three leagues. It was here the Nelly struck, as aforementioned.—There are two passages, one between the shoal and Sumatra. But I would advise keeping the island on board, as above; there is no other island to deceive you. The dangers off the island may be seen from the mast-head best, where an officer ought to be stationed while running through this channel, as the dangers, being white rocks, may easily be seen; but you cannot see the reef without the weather is remarkably fine. When you are in this passage you will have various depths, 10 or 12 fathoms, rocks. If you keep the island on board, as above, you will not have less than 10 fathoms. Its latitude is $2^{\circ} 23' N.$; and the latitude of Pooloo Sago $2^{\circ} 24' N.$

ADVICE.

All seamen must see the impracticability of passing Passage Island with a foul wind or hazy weather: and coming from the N.W. I would advise anchoring in 20 fathoms, (for under that depth the ground is foul), and wait for fine weather.

Mr. Herbert's charts of this part of the coast are very good with regard to bearings and distances; but we differ widely in our account of the latitudes.

SINKELL.

Leaving Passage Island, steer S.E. by S. but nothing to the eastward; or keep the island N.W. by N.: but by no means bring it to the westward of that, or you will entangle yourself in the shoal before mentioned. When you have run about 10 miles, and find yourself in 16 or 17 fathoms soft ground, you may keep away a point if you are bound to Sinkell. By the time you have sailed three or four leagues, as above, you will see the N. point of Sinkell-river, being a low point covered with Palmyra trees.—In the mouth of the river lies a small island covered with tall trees, and which may easily be known as such at the distance of four leagues.

SINKELL, ON THE WEST COAST OF SUMATRA.

On your arrival here, you will send your boat well manned and armed up the river, with your linguist, or some person who can speak the language of the natives. About half way up the river towards the town you will see a single house, belonging to the Shabundar. To this man you may declare your business, and he will send express to the merchants: you need not therefore proceed any further, but wait an answer, and conform to his directions.—For a small present, which is necessary and expected, he will give you
informa-

information of what is most in demand, and what goods the merchants wish most to dispose of. I need not tell you the goods you ought to affect to have least of and a reluctance to sell, as well as those you ought to make a favour to receive, although they may be the very goods you most want.

The merchants will soon come on board, and, upon shewing your musters, will settle the prices.

Be careful to be prepared to repel an attack, and suffer none but the head merchants to come on board, and none with arms or offensive weapons.

The prices being settled you will have boats on board daily with their exports, principally benzoin and camphor.

Benzoin is bought by the tompong (or piece), and ought to weigh 20 catty, each catty to weigh 56 ounces avoirdupois; and for camphor, 56 ounces troy weight.

You are generally paid for your goods in belly and foot; but the head you frequently pay dollars for. The three qualities of this article (benzoin) are denominated in the same manner as birds nests and camphor, viz. Head, the first quality; belly, the second quality; and foot, the third or worst quality, being of little value.

Their accounts are made up in tales, fooccoos, and fatallies, viz.

4 fatallies make 1 fooccoo.

4 fooccoos make 1 tale, equal to 4 Spanish dollars.

Observe that the head camphor be clean, free from dust or pieces of wood; that it be flaky, white, and clear, like crystals of saltpetre. The belly will be small, and have a yellow or brown tint, but transparent; the foot will look like dirty black rosin with shining particles in it; the more of them the better. You should break the cakes of benzoin and examine it carefully, for they will adulterate it, as well as the wax: and I trust this caution will suffice for all the Malay coast.

The exports are chiefly benzoin, camphor, wax, and gold.

The imports, iron in flat bars, opium, swivel-guns, muskets, gun-powder,

powder, stick-lack, long cloth white and blue, salampores ditto, small looking-glasses with gilt frames, kinkcobs, carpenters tools, red and yellow taffaties, gurrias, and Bandana handkerchiefs.

POOLOO LACCOTTA.

This place lies S.E. of Passage Island seven or eight leagues: keeping along shore S.E. will bring you near Pooloo Lacotta, a small bold island; N.W. from which, distance three miles, is Bird Island, a small sandy island to which a number of birds resort. You may pass it at one mile and a-half distance. You do not see this island above seven or eight miles off; it is about nine leagues distance from Sinkell. If it is night and you think you draw near the islands, keep your lead going, and as you near them you will deepen from 38 to 40 fathoms; then keep S.E. or S.E. by E. not coming under 27 fathoms; but if the wind will not permit you to haul in for the main, as above directed, you had better bring to for the night.

POOLOO CARANGUA.

When you haul in for the main land you will see a small island covered with trees, called Pooloo Carangua; steer towards it, and round it to the southward, at two or three miles distance.

TO ANCHOR IN BAROOS.

Bring the island Carangua to bear W.N.W. three miles; the flag-staff of Baroos N.N.E. five or six miles, and lay in 10 fathoms, mud.

BAROOS

Produces the best camphor of any place on the coast of Sumatra. The inhabitants have benzoin and gold. The imports are the same, with the addition of wearing apparel and household furniture, for the Dutch resident there.

Goods proper here, in addition to the former account, are white beads, Pulicate handkerchiefs, chints with large flowers and red ground, white dungarric, salt, rice, ghee oil, a few metal watches and gilt-hilted fwords. The proportion of buying camphor and benzoin should be as follows:

66 $\frac{1}{3}$	lbs.	Dutch,	head,
33 $\frac{1}{2}$	d°	d°	belly,
25	d°	d°	foot,

125 lbs. Dutch, equal to one pecul.

MENSELAR.

S.E. by E. from this place lays Stawkan island, distance about seven leagues, and is the only island between Menselar and the main. Menselar needs no description, being a high large island, between which and the main is a channel of about four leagues wide, and may be sailed through at discretion, either night or day. The course from Stawkan island to Battaboora-point, a bold point, though not so high as the south part of the bay, is E. by S. half S. about six leagues.

TAPANOOLLY, AN ENGLISH SETTLEMENT.

This point makes the north part of Tapanoolly-bay. Going in here you will be nearly abreast of the bay before you see it; but keep within

within about four miles from Sumatra, and you will see the houses and the flag-staff. Steer right in for the middle of the bay, round Battaboora-point, at about two cables length distance, and go round either end of Ponchun Cacheil you please, giving it a birth of about two cables length.

MARKS FOR ANCHORING.

Bring the hill on which the colours are hoisted to bear S. by W. half W.; the Resident's house S. by W.; and bring up in seven and a-half fathoms, soft ground; and moor with a rope to a large tree on the island; you are then land-locked. The latitude of Tapanoolly is $1^{\circ} 44'$ N. and longitude $99^{\circ} 33'$ E. of Greenwich.

SUGAR-LOAF ISLAND.

From Ponchun Cacheil steer S.S.W. six leagues for the Sugar-loaf Island, which you may pass on either side; but it is best to go to the northward of it, for there is said to be a shoal of coral rocks, on which the sea seldom breaks, lying S.E. about four miles distance from it.

REEF.

You may pass the Sugar-loaf two miles distant without danger; as you draw near steer to the southward, until you have 24 or 25 fathoms, mud; and you must get these soundings before you bring the island to the westward of north, in order to avoid the danger of the reef abovementioned, which, when you are past, steer for

POOLOO ILLY.

This is the next island you see, and bears from the Sugar-loaf S.S.E. three-quarters E. distance seven leagues; keep between 21 and 26 fathoms, and you may pass this island at four miles distance, and will have from 20 to 17 fathoms. From Pooloo Illy stand along shore towards the

ZEHLODYS.

These are three islands covered with trees; distant from Pooloo Illy about eight leagues. You do not perceive these to be islands till you are well up with them, or till you are within four leagues of them. They must not be approached nearer than 12 fathoms, and if it is day-light five or six miles birth is sufficient. They are encompassed with dangers, and these dangers continue as far as Carra Carra-point.

THE SYRENS SHOAL.

S. half E. of them lies a dangerous shoal of rocks, in many parts of which there are only five or six feet water, on which the sea often breaks. The snow Syren struck upon this reef in the day-time, she drew but 10 feet water; the weather being favourable she got off, but was much damaged. The southernmost of the Zehlodys bore from her S. half E. three or four leagues.

TO GO CLEAR OF THE SYRENS SHOAL.

As this shoal extends three leagues off the main, you should be very cautious in passing it. I would advise keeping the outer Zehlody N.E. by N. or at least not to bring it to the northward of N.N.E. until you are certain of being past all these shoals. When abreast of
it,

it, at two miles distance, you will have 19 or 20 fathoms, soft and regular soundings.

NATALL-HILL.

You will now see Natall-hill open with Carra Carra-point. This hill may be easily known by having low land on each side of it; it is bare of trees, and appears barren. When it bears S.E. by E. it appears like a gunner's quoin; and when the outward Zehlody bears N.E. by N. distant two leagues, Natall-hill bears S.E. just rising out of the water: you must then take care to shut it in with Carra Carra-point before you come under 18 fathoms, soft ground; when you may stand towards Carra Carra-point without fear.

NATALL.

The method of trading here is much the same as at Sinkell, only as well as benzoin and camphor you receive gold, from 20 to 21 Spanish dollars per tale. As the gold is generally dust, care should be taken in proving it before you make your bargain, as it is frequently so adulterated as not to be worth more than 16 or 17 dollars per tale. Aquafortis is the best mode to prove it; or if you have none, you may try it with spirits of hartshorn, by putting a small quantity of the gold-dust well mixed up on clean paper, and drop a few drops of hartshorn upon it; if there are iron-filings in it the paper will be turned brown or black; if brass-filings or pin-dust, the paper will immediately turn green.

Imports the same as at Sinkell.

CARRA

CARRA CARRA-POINT

May easily be known, by a high flat hill, opening at both ends, with a small peak towards the southernmost high part, from which Carra Carra-point runs into the sea.

THE REEF, OFF CARRA CARRA-POINT.

While Carra Carra-hill bears S.E. by E. you may haul in and round the point, coming no nearer than four miles, for off this point is a reef of black rocks, on which, in eight fathoms water, you will have the following bearings; the tall palmira-trees on Carra Carra-island N.E. northerly; the flag-staff of Natall E.S.E.; and the southernmost extreme of Pooloo Timong S. half E. distant from the island one mile and a-quarter or one and a-half. The sea often breaks on these rocks.

When the swell is great the break on this reef may be seen two miles, but when there is no swell you cannot see them; there are seven fathoms, mud all round.

TO GO CLEAR OF THE REEF.

There is a channel between Carra Carra-point and the reef; by keeping two or three miles off the point you will go within it. I would advise the outside passage; and after you are in 14 fathoms, bring Natall-hill to bear E.S.E. but nothing to the southward; and round Carra Carra-point at four miles distance, but no less; then steer right in for the hill, or something more southerly, and when Carra Carra-island bears N.E. by N. you are clear of the reef.

THE SHAFTSBURY REEF.

There is another reef on the other side of you, on which the Shaftsbury was lost: the channel between these two reefs is two and three-quarters or three miles wide. The bearings of the last mentioned reef are as follows: Carra Carra Island N. by E. three-quarters E. distance six or seven miles; Natall-hill E. by N. half N.; and Durian-point S.E. by E. half E. There are other channels and dangers, but this is the one commonly used. Coming from the northward there is no shelter from the N.W. winds, neither can you clear the land either way, and the whole bay appears like a breaker; it is therefore necessary to have good anchors and cables. When you come into 14 fathoms, as above directed, and standing in, you will gradually shoal to five or six fathoms; and after you are within the Carra Carra Shoal, steer to the southward, so as to bring the flag-staff E. half N. by the time you are in five fathoms; then come to an anchor.

POOLOO TIMONG.

Leaving Natall-roads, for Pooloo Timong watering place, run into 14 fathoms, soft ground; and do not come under that depth, until Pooloo Timong bears from E.S.E. to E. by N.; then steer in for the north part of the island, not far off which you will find 10 or 12 fathoms. When you come into six fathoms it may be proper to send your boat to lie on the outer edge of the coral bank that lies round this island. At this, and some other places, at the distance of three cables length off, you have six fathoms close to the rocks; so that from this depth your soundings are no guide. There are some reefs to the northward of Durian-point which the sea breaks on when it blows hard from the westward. When your vessel is abreast the boat, let her go round, keeping on the outer edge of the reefs,
and

and follow her, in the vessel, in six or seven fathoms, and at the distance of two or three cables length from the boat. When the body of the island bears W. half S. bring the extremes S.W. by S. and N.W.; then moor in six fathoms, soft ground, about a quarter of a mile off shore. The watering place will then bear W. of you; it is a well, in low ground, and is very wholesome good water. You may know the spot by the small white sandy beach. Here is also good wooding, and, in general, shelter from the wind and sea; but when otherwise, weigh and run round, using the same precautions as before.

AYER BUNGY.

From Pooloo Timong to Ayer Bungy steer about S.S.W. rather keeping the island on board, you will have five or six fathoms, soft ground; but by going towards the main you will have 10 fathoms. Steer as the winds permit, and when clear of the east-point of this island, steer along shore in various soundings and soft ground, until you approach Oujong Lalloo, which is the third point from Pooloo Timong. To the S.E. of this point are several spots of coral rock, very dangerous, being three or four miles off shore, and not very well known.

PRINCE HENRY'S SHOAL.

The Prince Henry anchored here, in the evening, in 17 fathoms, hard ground. It blowing hard in the night she parted two cables in foul ground; then stood in for Ayer Bungy E. by N. and E.N.E. and had 17, 18, 10, 14 fathoms, hard; then eight fathoms, soft, and immediately struck on a shoal of coral rocks, on which she lay two hours, and knocked off her rudder. They found the water shallowest next the main, and the least water on the shoal nine feet, and had

had the following bearings in this depth: the west-point of Pooloo Timong, Pooloo Pankeel S.E. by E. half E. off Oujong Lolloo four miles.

TWO PASSAGES.

The first directs you coming from Timong. When you are within seven or eight miles of Oujong Lolloo, keep within one and a-half or two miles from the main, till you are to the eastward of the said point; in which track you will have five or six fathoms, soft ground, and regular soundings; by which you may judge your distance off shore; and be very cautious not to deepen towards the shoal:

THE INSIDE PASSAGE.

When Oujong Lolloo is to the westward of north, steer up boldly for Pooloo Pankeel, and you will deepen gradually, and have soft ground. When you approach the islands, which are steep to, steer in mid-channel between Pooloo Tingo and Pooloo Pankeel, you will have 10 or 11 fathoms, soft ground, and regular soundings; and you may, if you please, round Pooloo Pankeel, and go between it and Pooloo Toolore; but be careful of the reef, which is very dangerous, though there is a good passage between it and the islands.

TO ANCHOR IN AYER BUNGY-ROADS.

When clear of these islands, steer towards the flag-staff, which you will see on a bluff point or hill, close to the north-end of which is the river where your boats land. The bearings for anchoring are the flag-staff W. by N.; the body of Pooloo Bauby W. by S.; the settlement and river E.N.E. half E. distance three miles, in four and a-half fathoms, clear ground.

THE OUTWARD PASSAGE.

The other is a good passage, by keeping along shore in seven fathoms, soft ground, till you come near the islands; then steer so as to pass mid-channel between the island and the main; you must borrow nearest Pooloo Bauby, which is the largest island in the bay; there is a sand lies N.E. of it distance one mile.

If you do not mean to go to Ayer Bungy, I would prefer the passage from Natall to Pooloo Timong; and being abreast that island, haul over for Pooloo Batoo; for almost mid-way between Pooloo Batoo and the main is a large spot, on which the soundings are very irregular, from 20 to five fathoms, and from 15 to four fathoms, hard coral rocks. We had nothing under four fathoms; but as the shoal is large there may be less on it. We ran three miles N.W. before we cleared it. Off the S.E. end of Pooloo Batoo are three islands, and from them about four miles is a dangerous shoal; some of the rocks appear above water. When the rocks are in one with the middle islands, they bear S.S.W.; and we passed them at three miles distance, in 24 fathoms, hard ground.

A NEW PASSAGE.

There are many different tracks from Pooloo Batoo to Padang, but there still appears a better than those before mentioned: the one I mean is to the outside, or to the westward of all the shoals, and to fall in with Pooloo Toojoo, keeping the island close on board, and to pass to the northward of it: in this track you will have no soundings. When passed Pooloo Toojoo, steer for Pooloo Leema, and keep it pretty close on board, at one and a-half or two miles distance on the starboard side; and when clear of it, steer for Pooloo Pissang, under which you may anchor in seven or five fathoms.

POOLOO TOOJOO.

Pooloo Toojoo is the northernmost of all the Padang islands. The following are the best Directions for the inside passage to Padang:

POOLOO TOOLORE REEF.

Being clear of Pooloo Batoo, and the small Sugar-loaf Island off Pooloo Lolloo, (called Batrabar), if bound to the Padang, give all the aforesaid islands in Ayer Bungy Bay a good birth of at least five leagues, and pass them in 18, 19, or 20 fathoms. Take care not to come nearer than five leagues, or 19 fathoms water. Off the southernmost of these islands (called Pooloo Toolore), to the S.E. of which, distance four leagues, lies a reef on which the sea breaks. When in eighteen fathoms, soft ground, this reef was about three miles distance; I therefore conclude that 20 or 21 fathoms is near enough.

OUJONG MASSONG.

As you run down you will raise Oujong Massong Hills, being three in number, one of them making considerably larger than the other two. When these hills bear E.S.E. you are near a shoal of black rocks, that cannot be seen at any distance from the mast-head.

A SHOAL.

The Prince Henry, in fine weather, run over this shoal, but knew nothing of it till they saw the rocks under her bottom; they then had the following bearings: Oujong Gading N. by W. half W.; Oujong Lolloo N. by W. the northernmost land in sight made

like an island, N.W. half W.; a small hammock (taken for the true point) about two leagues to the northward of Oujong Massong Hills East; the largest of the Massong Hills E. by S.; the trees of the low land just in sight from the deck, distance five or six leagues.

SOME ACCOUNT OF THE SHOAL.

This shoal is about two cables length long, and nearly round; on the middle are said to be three fathoms, and on the edge seven or eight fathoms, and close to the edge of the shoal 20 fathoms, sand, and directly 21 fathoms, mud; these soundings are all round the shoal; and you may pass it to the northward or southward which you please. If you pass it to the southward, bring the largest of Massong Hills to bear East, and you are then past it: you will now haul in for the main until about three or four miles distance in 17, 18, or 19 fathoms.

ANOTHER SHOAL.

In the Luconia they saw another shoal which they judged to be off shore six leagues, and bears from Oujong Massong S.W. by W. They saw the sea break very high on it, but were not near it. It appears from these observations to be a continued chain of shoals, from Ayer Bungy to Padang, with many good channels between them; a good look-out is therefore necessary.

POOLOO TOOLORE.

There is a good passage between these shoals, especially if you are obliged by contrary winds to turn it, having good anchoring ground, and your soundings are to be depended upon. From Ayer Bungy-roads steer within two miles of the main, and do not exceed this distance

distance abreast Oujong Gadding, but keep from five to eight fathoms, soft ground; and be particular if you sail with a leading wind in the night: if you turn to windward it must be by day, you may then borrow on the shoals to 12 fathoms; and as you get two or three leagues to the S.E. of Toolore Island, into 15 or 16 fathoms, shape your course for Oujong Massong, guarding against the reef before mentioned.

Note.—You here pass between Pooloo Toolore and the main, and all the shoals shew themselves by day; there are four inner shoals between the northernmost and Toolore. These shoals are the narrowest part of the channel, which is three and a-half or four miles wide. When abreast of Oujong Gadding and its bearing N. half W. the shoal will bear S. half E.

PASSAMAIN AND TICCOOSE ISLANDS.

The Oujong Massong Hills may be seen from the south-easternmost shoals if clear weather. Do not go too deep into Passamain-bay. You may pass within a mile of Ticcoose-island, and anchor on either side of the outward island. If it is blowing weather, steer down in 16 or 17 fathoms, soft ground. Round Oujong Massong in 17 or 18 fathoms, and steer toward the outward Ticcoose-island; they are three in number; and when you are passed the Ticcoose Islands, keep your depth of water, if necessary, until you are either five or six miles off Pooloo Cassiqua.

POOLOO CASSIQUA.

This is a small sandy island, with a pretty high beach. You must not mind your course, but sail by your soundings: if you turn it, keep a good look-out, and stand in with the main to 12 fathoms, and out again to 18 fathoms, taking care to keep soft ground; but if you find it

it hard, tack again immediately; as there is no hard ground but near a shoal, of which there are numbers both within and without you.

MR. HERBERT'S CHARTS.

Mr. Herbert's Charts of this coast are the best I have seen or know of, considering they are general ones.

PRIAMAN ISLAND.

When you are in 17 or 18 fathoms, soft ground, and five miles off Cassiqua, steer for Pooloo Toojoo, until you deepen your water to 35 or 40 fathoms: you are then clear of the dangers of Cassiqua and Priaman's Islands, which are three in number, but only two of them to be seen till you are well up with them.

POOLOO TOOJOO, POOLOO LEEMA, AND POOLOO PISSANG.

Being up with Pooloo Toojoo, steer for Pooloo Leema, and from thence to Pooloo Pissang; you may pass Pooloo Leema on either side, but to the westward of it is best, as there is a reef of rocks that run off the N.E. end of it at a league distance, and has 40 fathoms close to it. Off the west-point there is no danger.

POOLOO SATOO.

Steer for Pooloo Satoo, a small high island flat at the top; pass it in shore, but be careful of a reef of rocks that runs S.E. half a mile off.

POOLOO DOOA.

Or you may go between it and Pooloo Dooa, a small island to the southward, as may be most convenient. Here you may plainly see Pooloo Pissang, a small island in shore of you, within which you lie to transact your business at Padang.

PADANG.

You may now see the flag-staff, on a hill close to the sea, a little to the northward of Pooloo Pissang. Here all vessels go round that are going into the river; one mile within the entrance of which lies the town of Padang.

The land to the northward of Padang is low towards the sea, and mountainous up the country.

TO ANCHOR IN PADANG-ROADS.

Having passed Pooloo Satoo, as above directed, steer for Pooloo Pissang without fear, and round it at either end. To a stranger I would recommend the S.E. end, as most roomy, giving the island a birth of a quarter of a mile. There are 13 fathoms close to, decreasing gradually as you round it. When you see the stone wharf, bring it W. by N. and anchor in five fathoms, at half a mile from the island; but if you choose to be nearer the island you may have six or six and a-half fathoms; and are well sheltered from the westerly winds.

TO TURN TO WINDWARD.

If obliged to turn, be careful not to fall in with the shore, near the island of Cassiqua or the Priamans, near which are many shoals and

rocks, both above and under water. The shoals of Cassiqua lie N.E. half N. and S.W. half S. nearly of the island. When you are between Pooloo Cassiqua you may stand further in, but as you near the Priamans keep well toward Pooloo Toojoo, on account of a dangerous reef South from the island: about three miles from the off side of which reef you will have 25 fathoms, soft ground; which depth continues to within half a cable's length of the shoal; and at low water many spots of the shoal are dry. When passed this danger, you may make more free with the shore, and stand into 12 fathoms, mud, keeping a good look-out. When you are passed Pooloo Lema you will see Pooloo Carong in the bottom of the bay (to which Mr. Herbert gives no name). Do not come near this island, as there are many dangers about it; and some of them run into deep water to the southward. The safest way is not to stretch above two-thirds channel over between it and Pooloo Satoo, off the N.E. point of which is a small rock at some distance. When passed Pooloo Carang and Pooloo Satoo, you may make longer boards; taking care not to approach the bight to the northward of Padang, in which are some dangers: then bring Pooloo Dooa W. by S. but not to the westward of it, on account of some shoals to the S.E. of it towards Lacrone island; there is a shoal right off Padang-hill or flag-staff which runs off as far as Pooloo Pissang, and almost to it; but there is a good channel between it and the north-end of Pooloo Pissang. To enter the channel, bring the island well to the eastward, and round its north-end at a cable's length distance; you will have 9 and 10 fathoms abreast of the rocks, which are steep to. As you round the island you will shoal your water to eight, seven, six, and five, fathoms, soft ground; this is the least water towards the island: but towards the main is less water and hard ground. As you round the island you will see the wharf; and having brought it to bear W. by N. anchor: the flag-staff on Padang-hill will bear N. by E. in six or six

fix and a-half fathoms, soft ground: here you may moor, being well sheltered from the N.E.

N.E. from Pooloo Leema, distance two or three miles, is a reef with 40 fathoms close to it. I have already mentioned this passage; but as the present Directions are extremely good, I do not hesitate to venture a repetition, with some observations

FOR MAKING THE QUICKEST PASSAGE FROM OUJONG LALLOO
TO PADANG.

When Pooloo Batraba bears N.E. and you want to make the quickest passage, steer directly over for the southwardmost islands off Pooloo Batoo, steering about South till they bear N.W.; then shape your course so as to make Pooloo Toojoo: leave it on your left hand, and stand for Pooloo Annam, and so for Pooloo Ampat. Stand on between Pooloo Satoo and Pooloo Dooa and towards Pissang, and take care not to get between Pooloo Dooa and Pooloo Tiga, for there are several rocks stretching from one to the other: if there is a channel it is unsafe and intricate; but if you are bound direct for Moco Moco, steer without these inner islands. There is a channel 12 or 14 leagues wide between them and the inner islands, and no danger. Keep three or four leagues without the inner islands, and make Indrapore-point, lest you should over shoot your port.

IMPROPER IN CONTRARY WINDS.

There is no anchorage in this passage, therefore it is not to be recommended in contrary winds, as currents generally set with them.

FROM PADANG TOWARDS THE SOUTH-EAST.

Leaving Pooloo Piffang, steer for Pooloo Babeck, leaving it to the eastward, and keeping it pretty close on board, on account of a shoal that lies mid-channel between it and Pooloo Lacrone: this shoal is the more dangerous as the sea seldom breaks on it. There is a passage between it and Lacrone; but you must keep either island close on board in fair weather; and if you have to touch at Pooloo Sinke, from Pooloo Babeck steer for Pooloo Pergamy, leaving it to the eastward, and stand in for Pooloo Musquito, which you must leave to the westward, and stand off till you get five or six leagues without the islands, having care you do not entangle yourself at night; thus stand in for Indrapore-point.

A DRY BANK.

There is a small dry bank that lies N.W. 10 or 12 miles from Pooloo Musquito; and S. by E. near the same distance from Pooloo Toojoo, it may be seen one and a-half or two miles in the day-time, but at night you cannot possibly see it. Round Pooloo Babeck to the eastward or westward, keep within Pooloo Pergamy, Telery, and Mana, leaving them to the southward. This is a bold deep passage, but narrow; you have soundings from 30 to 40 fathoms all through in mid-channel.

Over from Jerregall-point, and right opposite to Pooloo Manna, is a high rock, very steep and rugged, which you may leave on either hand. The deepest water and best channel is to the southward. If you go between it and the main, keep the rock on board, as a reef projects from the main one-third channel over towards the rock. If you have a fair wind you may go without Pooloo Pergamy, and fall

in with Pooloo Manna; steer for Baby Catchill, leaving the two islands in shore, which you may near if necessary, and pass on either side of them.

AYER BAZAR AND POOLOO SINKO.

From thence stand for Ayer Bazar, which leave to the S.W. and when abreast of it you will see Pooloo Sinko bearing N.E. which may be known by the flag-staff standing on a little round hill; keep it on your larboard bow, and run into 12 or 13 fathoms, where you have good anchorage.

In going on shore in your boat, leave the island on your left hand, and in rounding you will see a wharf to land at.

POOLOO RINGIN.

Leaving Pooloo Sinko steer along shore from 23 to 25 fathoms, taking care not to borrow on the shore, off which run many shoals. When you draw near Pooloo Ringin, edge towards it, keeping two-thirds channel from the main, on account of a large reef of coral rocks that lays between it and this island. When Pooloo Ringin bears S.W. if you want to go to

AYER RAJA

steer E. by S. and E. which will bring you near it: it is difficult to find it, as the flag-staff is four miles in land. Go no nearer than eight fathoms, with Pooloo Ringin bearing W. half N.; the flag-staff will then bear east of you, and you will be two miles off shore.

BAD LANDING.

I would not advise your anchoring here, as you cannot clear the land should it blow hard, and you will ride very badly. It is dangerous to send your boat into the river, as at low water the sea breaks very high upon the bar.

Leaving Ayer Raja, steer for Indrapore-point, keeping two leagues off shore. The course is S.S.E. half E. distance seven or eight leagues; you pass about four miles off shore. When abreast of it you may know it by a grove of trees higher than the rest: when past it, as you bring it to the N.W. it shews itself as a low point, with the aforefaid grove of trees on its extremity.

There are no more islands between Indrapore-point and Marlborough; Pooloo Ringin being the southernmost, and at three or four leagues off a clear coast. But it is necessary for such as touch at the different settlements to keep in anchoring ground.

MOCO MOCO.

From Indrapore to Moco Moco, the course is nearly S.S.E. distance 11 or 12 leagues. But your best guide, as well here as every other part of the coast, is your soundings. Keep from 14 to 20 fathoms with a fair wind; nor further off than 30 fathoms, for fear of being drove out of soundings and anchoring ground. Standing in shore do not, on any account, come under 10 fathoms; for if you do, it is probable you may cut your cables and loose your anchors in foul ground, which you are liable to meet with every where on this coast.

LAND AND SEA WINDS.

Between Indrapore-point and the Straits of Sunda the following Directions may be taken as a general rule for turning to windward and for anchoring, from hence to Manna-point.—Stand off to 20 or 30 fathoms in the night, and in again by day to 10 or 11 fathoms, all soft ground. In turning you must anchor in 30 fathoms, and stay till 10, 11, or 12 o'clock for the sea wind; then weigh, and stand in shore till you are in 10 or 11 fathoms, and anchor till the land winds come off, at six, eight, or perhaps twelve, o'clock at night, and sometimes not till four or six in the morning: this often happens in both monsoons, and then does not vary above three points from the monsoon winds: at those times the day winds are steady from N.W. or S.E.

WORKING ALONG SHORE:—

it is then impossible to beat along shore; at other times you have the land winds from N.N.E. to E.N.E. a leading wind; at five, six, or seven o'clock in the evening you may edge away to 25 or 30 fathoms, so as to be in that water by eight or nine the next morning, at which time the land wind being done, come too with a kedge or stream anchor, to prevent the currents horsing you back, and wait for the sea winds, which set in as above. With the first of these winds you stretch along shore, but towards night edge away into 10 or 11 fathoms, so as to get the first of the land wind. There is always a calm between land and sea winds, it is therefore necessary to have handy anchors to work.

MOCO MOCO FORT.

About four or five leagues to the northward of Moco Moco, is a remarkable gap in the tall palm trees, by which you may know when you draw near the settlement. To the southward you will see two points of land, which are formed by the woods; between them is clear level land, on which is Moco Moco Fort. When you come abreast of the fort you will see the English colours. Bring the flag-staff to bear E. by N. and anchor in 10 fathoms, soft ground. Here you must wait for a boat from the shore, as your own cannot land without great danger. W.N.W. from Moco Moco, distance four leagues, lies a shoal; in blowing weather the sea breaks on it, and on which there is said to be two and a-half fathoms. About two or three leagues to the southward of Moco Moco is a reef of foul ground, that runs five miles to seaward, with irregular hard soundings, and in many places scarce four fathoms on it. The best way is to keep between 25 and 30 fathoms, till you find you can carry your soft muddy ground to 10 fathoms; you may then depend on being clear of it, and may run along shore to Marlborough, the coast being entirely clear, and good anchoring ground all the way, not coming under 10 fathoms till you have sight of

RAT ISLAND,

which is a small island covered with cocoa-nut trees. To the northward of Marlborough are several high mountains; and at seven or eight leagues distance, coming along shore, you may see the Sugar-loaf: stand towards Ra Island to 10 or 12 fathoms mud. There is a reef runs from the island W. and W.N.W. five miles; as you approach it, give it a good birth while it is to the S.E. of you.

MARLBRO' BAY.

Then steer for Pooloo-point, which is a bluff point to the S.E. until the island bears S.W. and the Sugar-loaf N.E.

TO ANCHOR IN BENCOOLEN BAY.

You may anchor here in from eight to twelve fathoms, mud; but should you be too near Rat Island, you will find sandy ground with rocks and mixtures.

NORTH BREAKERS.

In coming in do not come nearer the main than eight fathoms, as the North Breakers do not shew themselves in fine weather.

CAUTION.

It is not customary for country ships to moor here, as the roads are quite exposed to the N.W. winds, which sometimes raises such a sea as to render it almost impossible to ride; and if these gales set in, the vessel will of course be under the necessity of leaving two anchors behind instead of one. When there is reason to expect one of these gales, do not attempt to ride it out unless it should be night.—

BUT TO RUN FOR POOLOO BAY,

If day-light, slip your cables and steer south, until you have passed the Black Rocks, which lie half way between the roads and point. If the weather is not very bad the rock shews itself; but when it blows hard

hard the channel is quite a break. When you are sure which is the low point that forms the bay, you will shoal gradually to eight fathoms: as you approach it steer round the point at one cable's length; keep in this depth till you fairly open the bay, then luff up to the starboard till the point bears N.W. or N.N.W. in six or seven fathoms, mud; here you are sheltered from all winds and weather. In going in do not anchor too near the S. or S.W. side of the bay, on account of some coral rocks under water, running two or three cables length.

POOLOO BAY.

This is a fine bay, but the country round it is very sickly: should it have happened that you have lost all your anchors you may

RUN ON SHORE AND NOT HURT.

But you must, for this purpose, luff close round the point, and keep along the western shore, till you see a tree which you think strong enough to hold you, then get your haufers ready and run your vessel in shore without fear, and make fast, waiting for supplies.

BLACK ROCKS.

There is no danger between Fort Marlbro' and Pooloo Bay; but to the northward of the rock, which lies in nine or ten fathoms, on which the sea generally breaks, there is a good channel, which lies between the Black Rocks and main, above a mile broad, with six, seven, or eight fathoms. This channel is not much used, as the outer channel is more roomy, and 12, 13, or 14 fathoms carries you two miles without the rocks.

DIRECTIONS

DIRECTIONS FOR KNOWING THE LAND.

From Pooloo-point (the first bluff point you see in the roads to the S.E. or S.E. by S. of you) to Sandy-point, the land is very low, and runs N.E. and S.W. At a cable's length distance from the shore are eight and nine fathoms; and the same depth a mile off.

IMPROPER TO RUN FOR POOLOO BAY IN THE NIGHT.

This renders it very unsafe for a ship to run for Pooloo Bay in the night, or in thick weather, when you cannot see the land or the low sandy point, on which you are liable to run. If obliged to leave Bencoolen-roads in the night, I think it best to run out to sea. The distance to Pooloo Bay is four or five leagues.

TWO PASSAGES.

There are two passages out of this road, occasioned by a reef of rocks that bears from Pooloo-point S.W. by W. distance three or four miles; and from Rat Island S. by E. and S.S.E. distance three miles. The foul ground extends three miles, and a heavy swell breaks full a mile in length. At the S.E. end of this reef are 21 fathoms, soft ground, not more than one mile and a-half distance; and from that to 17 and 18 fathoms, hard, close to the edge of the reef. The least water said to be on this reef is two and a-half or three fathoms, coral.

If you are coming from sea, bring Rat Island N.E. by N. or N.N.E.; steer right for it till you are within one and a-half or two miles; then edge away to the eastward, and so round the island to Marlbro' Road, shoaling quick in soft ground. If coming along shore

from the S.E. and have got to the westward of Buffaloe-point, which lies S.E. by S. two or three miles from Pooloo-point, (and which will be seen S.S.E. when you are at anchor in 10 fathoms, just open with Pooloo-point) haul into 14 fathoms, or between that and 16 fathoms, sandy ground, before Pooloo-point bears to the eastward of north. Marlbro' lies in latitude $3^{\circ} 46'$ south, longitude 102 east of Greenwich.

FURTHER DIRECTIONS FOR THE WEST COAST OF SUMATRA.

Note. By the inner passage on the coast of Sumatra is meant that from Pooloo Banjack to Indrapore-point.

PASSAGE ISLAND.

If you come from the northward, and would sail between Pooloo Banjack, Passage Island, and the main, which is the best way, you must get in with the Sumatra coast a little to the northward of Pooloo Banjack, or in latitude $2^{\circ} 39'$ north. Pooloo Banjack is known by a peaked hill, resembling a sugar-loaf, on the N.W. end of it, and has a chain of islands to the north-eastward. But the innermost and easternmost is Passage Island, lying in latitude $2^{\circ} 26'$ north, and makes like a punch-bowl turned upside down; which may be seen at the distance of four or five leagues. There is no other island to the eastward of this, and which you must leave on your starboard-side. Between this and the main is a dangerous shoal of coral rocks, with about three fathoms on it. On passing Passage Island, by no means bring it to the westward of S.W. nor to the southward of S. by W. half W. until you enter the channel, or you will run upon the above mentioned shoal. This passage is about one mile and a-quarter broad, and the course through is S. by W. and S. three-quarters W.

When Passage Island and Pooloo Banjack are in one, bearing S.W. by W. half W. (which is the bearing of the southwardmost shoal) you are past all shoals, and may pass Passage Island at the distance of a quarter of a mile. Observe not to bring Passage Island to the eastward of N.E. for off the S.W. end are a number of rocks and shoals at a great distance, with eight or ten fathoms water between them.

SINKELL.

When you are about a league past the island, you may steer S.E. for Sinkell-river, but beware of the shoals that are all the way betwixt this island and Sumatra.

By no means bring Passage Island to the westward of N.W. for S.E. one-quarter E. distance 10 miles from the island, lies a reef of black rocks. You should therefore steer S.E. by S. until you are in sight of the mouth of the river Sinkell, which is known by two sharp points of land, with thick groves of small pine trees growing on them; between which points the river empties itself into the sea, and may be seen five leagues off.

To anchor in the roads, bring the mouth of the river to bear E. three-quarters N. in 17 or 20 fathoms, mud; distance from the river two miles.

BIRD ISLAND.

From Sinkell-roads to Bird Island, the course is S.E. by E. distance 10 leagues. On this course you may venture to run (in thick rainy weather), but on no other with safety; for between Sinkell-roads and Bird Island this coast is very dangerous and full of rocks and shoals.

N. B. Mr. Herbert's charts are very good for this part of the coast.

Bird Island (so called from the number of birds that frequent it at different times of the year) is a flat sandy spot, partly covered with a green sod, and has 30 fathoms within a quarter of a mile of it. S. half E. and N. half W. from Bird Island is

POOLOO LACOTTA,

an island well covered with trees, and may be seen five or six leagues off; therefore, by seeing Pooloo Lacotta, you may know where to find Bird Island, which lies to the northward of it.

POOLOO CARANGUA.

From Bird Island to Pooloo Carangua (off Barroose) your course is E. or E. by S. eight leagues. To the southward of the island there is good anchorage when the body bears N.W. by W. distance one mile. If you are unacquainted at Barroose, you had better wait for a Sanipan to conduct you to the shore; otherwise you may run a risk of losing your boat, as there is generally a great surf on the bar.

POOLOO SOKEEN.

From Pooloo Carangua to Pooloo Sokeen the course is S.E. by E. distance six leagues. Between Pooloo Manselar and the island of Sumatra is very pleasant sailing, by reason of good anchorage from five to twenty fathoms; nor is there any danger but what is seen above water. Towards Manselar is deep water.

From Pooloo Sokeen to Battaboora-point the course is E.S.E. half E.; this is the westernmost point of Tapanooly-bay, off which runs a small ridge of rocks, about a mile from the S.E. part. After you are round this point you will see the English settlement of

TAPANOOLY,

on a small island, in the bottom of the bay on the N.W. shore, distance two and a-half or three miles. There is no danger all round this island, without a cable's length distance.

Ships that have a cargo to dispose of, go round and anchor to the eastward, the body of the island bringing it to bear S.W. by S. in eight fathoms, mud; and have a rope to the shore to swing by. Here the tides rise six feet perpendicular.

SUGAR-LOAF ISLAND.

From Tapanooly to Sugar-loaf Island the course is S.S.W. distance six leagues. It is best to pass without this island, for S.E., distance four miles from it, lies a shoal of coral rocks, which will oblige you to stand into 24 or 25 fathoms, before you ought to bring the island to the westward of north.

POOLLOO ILLY.

From Sugar-loaf Island to Poolloo Illy the course is S.S.E. one-quarter E. distance seven leagues. If you pass this island four miles in the offing, you will have from 17 to 20 fathoms, muddy ground.

POOLLOO ZELODY.

Seven leagues to the northward of Poolloo Illy lie the Islands of Zelody, which are three in number. There are several dangers about them, therefore you must pass about four miles from the outermost in 20 or 21 fathoms, soft ground.

THE SHAFTBROOK SHOAL.

S.S.E. distance three and a-half or four leagues from Pooloo Zelody, is a large and dangerous shoal of rocks, which in many places has only five and six feet water. You must not bring the outermost island to the westward of north, until you are past it; you will then see Natal-hill bearing about south-east, which you must not shut in with Carra Carra-point, nor come within 18 or 19 fathoms, soft ground, until Carra Carra-point bears S E. by E. you may then haul in and round it, not coming nearer than two and a-half or three miles of the point, on account of a reef of rocks under water, which runs two miles off. One mile and a-half off the small island of the same name, bearing S.W. by S. from the point, and when you get Natal-hill to bear E. S.E. you are three miles distance from Carra Carra-point.

TO AVOID THE SHAFTBROOK AND CARRA CARRA SHOAL.

Come not under 14 fathoms, soft ground, till you bring Natal-hill between E. by S. and E.S.E.; then you may steer directly for it, keeping off Carra Carra-point two miles and a-half. When abreast of it, (by these Directions) you will shoal your water gradually to six or five fathoms.

TO ANCHOR IN NATAL-ROADS.

Here you may anchor, bringing the hill a little to the northward of east, and the town E. half S. This road lies open to the westerly winds, which blow very hard sometimes.

The bearings, when at anchor in Natal-roads, are, the town to bear E. half S.; Durian-point S. by E.; Carra Carra-point N.N.W. three-

three-quarters W.; Natal-hill E. one-quarter N.; and Pooloo Timong-passage just open, bearing S. three-quarters E. off shore two or three miles, in five or five and a-half fathoms, soft ground.

The bearings of the Shaftbrook-shoal are the highest part of Natal-hill, bearing E. by N. one-quarter N.; Durian-point S.E. by E. half E. off Carra Carra-point five or six miles.

BETSEY GALLEY'S SHOAL.

The bearings of the shoal off Durian-point, commonly called Betsey Galley's-shoal, are, Natal-hill N.E. by E.; Point Racoul E. three-quarters N.; Durian-point S.E. half S.; Pooloo Timong S.E. by E.; Carra Carra-point N. by W. distance off Durian-point one mile and a-half; least water six feet. Come no nearer the shoal than seven fathoms, nor nearer the main than three or four fathoms.

OUTER SHOAL OF NATAL-ROADS.

The bearings for the outer shoal of Natal-roads are, Natal-hill E. half S. distance 12 miles; Carra Carra-point N.E. by E.; Pooloo Timong S.S.E.; extremes of the land to the northward N.; least water known to be upon this shoal 16 feet. This shoal is nearly round, and about three-quarters of a mile broad: you must beware of it coming from the seaward.

DIRECTIONS

TO SAIL FROM NATAL TO THE SOUTHWARD, THROUGH THE
INNER CHANNEL.

BE sure you enter the channel with the following bearings, viz.: Carra Carra-point N.N.W. and the outer point of Pooloo Timong S. half E. When Durian-point bears S.E. by E. half E. you are then clear of the shoals, and may stand into deeper water at pleasure.

To sail from Natal to sea through the great passage, bring Natal-hill E.S.E.; then you may steer W.N.W. but nothing to the westward of it, till you are five leagues from Natal settlement, and the extremes of the main, and islands included, bear N. and S.S.E.; you will then have 14 or 15 fathoms water: with this depth and bearings you may alter your course with safety. If bound to the northward, steer the opposite course you came, (by the foregoing Directions): but if to the southward, steer S.S.W. and S. as your soundings direct, observing to keep in 14 or 15 fathoms.

TO SAIL INTO NATAL-ROADS, THROUGH THE INNER-PASSAGE
FROM THE SOUTHWARD.

Bring Durian-point S.E. by E.; and when in 13 or 14 fathoms water, steer directly in for the road, till you bring Carra Carra-point N.N.W. which keep till you are fairly past Point Racoul: being then clear of the shoal, steer so as to bring Natal town E. half S. or E. three-quarters S.; and anchor in five or six fathoms, soft ground.

TO SAIL FROM POOLOO TIMONG FOR AYER BUNGY.

When you are abreast of Pooloo Timong, steer along shore to the S.E. and you will have variable soundings, but soft mud, till you approach Oujong Loolo, which is a bluff point, and the third from Timong, lying half way between it and Pooloo Baubie. To the S.E. of this point are several small shoals in seven fathoms water; the least water on them is six feet, and are three miles off shore. Between the main and these shoals is a good channel; to sail through which, when you come within seven or eight fathoms off Oujong Loolo, keep within one and a-half or two miles of the main, until you are to the eastward of the above point. Your soundings this way are, three, four, and five fathoms, soft ground; by which you may judge your distance off shore; and take care you do not deepen your water towards the shoals, nor without five fathoms. When you have the point to the westward of north, you may keep along shore in seven fathoms, till you approach pretty near

POOLOO BAUBIE,

which is the largest and innermost of all the islands lying off Ayer Bungy; then bring it to bear S. of you, and keep its N.E. shore on board, at the distance of half a mile, in order to keep clear of a dangerous shoal or sand-bank lying N.E. of Pooloo Baubie, and dry at low water; it is in length one-third of a mile. About a cable's length from the island are four or five fathoms, soft ground; but within this is a shelf of coral rocks.

POOLOO TULLORE.

To sail from hence to the S.E. keep the main on board at the distance of two or three miles, as there is good anchorage all the way, keeping in five or seven fathoms, until you are abreast of Oujong Gadong-shoal, and another of coral rocks lying off Pooloo Tullore, which is the southeastermost of all the islands lying off Ayer Bungy. When abreast of this shoal, the Oujong Gadong will bear N. half W.; and the shoal S. half E. When you are through this part, (the shoal off Pooloo Tullore bears south westerly), you will see another dangerous shoal bearing S.S.E. one-quarter E. distance five or six miles, which you must pass to the eastward, at the distance of two or three miles. Your course towards it is nearly S.E.; and on approaching it you will deepen your water gradually from eight to 16 fathoms, soft ground. There are four shoals, in all, off Pooloo Tullore, which are in a N.W. and S.E. direction.

OUJONG MASSONG.

When you are past these shoals, steer for Oujong Massong, known by three little hills on the main, called, the Three Brothers, which may be seen in clear weather from the southernmost shoal. Be careful you do not get too deep into Passamain-bay, as it is not well known. You may pass the island Ticcoos at a mile distance, and anchor on either side of the outermost island. If blowing hard from the westward, steer down in 17 or 18 fathoms, soft ground. Round Oujong Massong in the same depth; and then steer towards the northend of

TICCOOS ISLAND

till you come within five or six miles of Pooloo Cassiqua. The lead will

will be the surest guide, and you must then run directly over to Pooloo Tayo, until you deepen your water to 35 or 40 fathoms. You are then clear of the shoals of Pooloo Cassiqua, and the Priaman islands; but beware of that lying off Pooloo Toojoo N.W. five or six miles. Then steer for Pooloo Leema, and from thence to Pooloo Pissang, passing Pooloo Leema on your left hand; for from the N.E. part runs a reef of rocks, that has 40 fathoms, within two or three miles of them. After you are past Pooloo Leema, steer for Pooloo Satoo, passing either between it and the shore, or Pooloo Dooa, a small island to the southward, according as you have the wind. From hence you may plainly see Pooloo Pissang, under which you must lie while you transact your business at Padang, and will see the flag-staff standing on a steep hill to the northward of Pissang.

POOLOO PISSANG

is a small island close in with the main; you may pass its N.W. end a good cable's length off. On the N.E. side is a wharf or pier running into the sea, close to the end of which is 13 fathoms: off here you may anchor; the pier-head bearing W. by N.; the flag-staff bearing S. by E.: after this you may coast it, about three or four miles off the main, all the way to Indrapore-point. Your course to Pooloo Lacrone is S. by W. half W. distance four leagues. Leave Pooloo Lacrone about one mile and a-half to the westward of you, but do not exceed that, on account of a dangerous shoal lying near mid-channel between it and Pooloo Pissang.

POOLOO MANNA.

There is another shoal between Pooloo Lacrone and Pooloo Babbeck. When abreast of the former, haul in for the main; and pass

the latter on your larboard-side, and Pergamy and Pooloo Tellery on your starboard, distant from the first one mile and a-half, and from the other half a mile. After passing these islands, run through a narrow channel, formed by the small islands to the eastward of Pooloo Manna, which is a good and safe passage about one mile broad, particularly the north-end, where there are 30 fathoms water. We went through this passage in the Swift, and passed close to the eastward of a large rock, lying half a mile to the northward of Pooloo Manna, and had seven fathoms within 15 yards of it.

From Pooloo Manna, steer for Baubie Catcheel, and leave it on your starboard hand: then steer for Ayer Bassar and Ayer Catcheel; these also leave on your starboard hand, and Baubie Bassar on your larboard side.

AYER BASSAR.

To anchor in Ayer Bassar: bring Pooloo Sinco and the flag-staff to bear E. by N. three-quarters N. distance from Ayer Bassar one mile and a-half.

POOLOO SINCO.

To anchor in Pooloo Sinco-bay: bring Pooloo Sinco N.W. by N. in 10 fathoms, soft ground.

For the rest of the passage to Indrapore-point, consult Mr. Herbert's chart, which is very good.

From Indrapore-point the coast is tolerably clear of danger; nor are there any islands till you come to Rat Island.

S.W. by S. from Moco Moco three or four leagues, are irregular foundings, and in some places no more than four fathoms, rocky ground.

W.S.W. four or five leagues from the same place is a shoal, whereon the sea has been seen to break in hard gales of wind.

MOCO MOCO.

The direct course from Indrapore-point to Moco Moco is S.S.E. 11 or 12 leagues. This place is known by a large gap in the tall palm-trees that grow along the beach. A little to the southward of this is another gap, formed like two points of land: on this place is the settlement of Moco Moco.

TO ANCHOR AT MOCO MOCO.

To anchor here, bring the fort to bear E. or E. by S.; and the large gap in the trees to the northward of E.N.E.

Note. In sailing either up or down this coast in the monsoon, it is much the best to keep in shore, and never stand off further than 25 fathoms, nor come under eight or nine fathoms, on account of the land winds, which you will have but little of seven leagues off the land; and within seven fathoms, it is not safe to venture.

OF
THE COAST OF MALAY,
DURING THE
LATTER PART OF THE SOUTH-WEST MONSOON.

NAVIGATORS bound from Tringano to the southward, generally shape a course so as to pass three or four leagues to the eastward of Pooloo Capas, tempted by a shift of wind from the N.W. which generally leaves them before they can weather the island. When they find themselves in deep water, and a rapid current setting to the N.N.E. and a heavy swell to beat against, few vessels are equal to the task, and they can only succeed at the expence of their ground tackling. I therefore think it would be more advisable not to leave Tringano before the end of September; and secondly, to take the advantage of the land and sea breezes, and to work down along shore between Pooloo Capas and the main. From what I experienced of the coast, it appears every where safe within two miles of the shore; I should therefore attempt the passage without hesitation. The Malays affirm there is no danger on this coast till after the 15th of October, when the equinoctial gales, or shifting of the monsoon, may be expected: they begin from the westward, veering round to the N.E.:

N.E. : they reckon three distinct gales previous to the shifting of the monsoon, hard, harder, and hardest.—Prudence would dictate to beware even of the first : indeed, nothing but extreme necessity ought to induce any one to remain at Tringano after the equinoctial ; previously to it there is generally a great deal of threatening weather, but no danger.

From Tringano to Packanga-river the coast lies S.S.E. with a fine sandy beach, which may be approached with the greatest safety within two miles, gradually decreasing your soundings to eight fathoms, sand. At that distance, as you approach towards Packanga-river, you will see some black rocks in shore ; they join with the beach, and there are five fathoms half a mile without them. The north-point of Packanga-river is a bluff head, on which the surf breaks very high ; it is bold to. I anchored very near to it several times, in nine and a-half or 10 fathoms, mud and sand. There appears to be a chain of communication under water, between this point and Pooloo Brala. I worked between them four or five days without gaining above two or three miles, and then had soundings of coral rocks, 17 and 18 fathoms ; 17, 18, and 19, mud ; foul ground 19, 19 and a-half ; sand 20 and 22 fathoms : at this time I supposed myself to be distant four or five leagues from Pooloo Brala. To the southward of it, I saw a black rock distant about two or three miles ; and to the northward of it several others, not laid down in the charts. I therefore think it would not be prudent to approach it nearer than 21 fathoms on the west-side. From the south-point of Packanga-bay, to two or three leagues to the southward of Tanjorain-bay, the coast lies nearly north and south ; the high land bordering close to the sea forming a number of sandy bays.—That of Tanjorain is very deep, it is therefore best to anchor abreast of it in the night, with a scant wind ; for by chance you may be deceived by your soundings, and get embayed before you are aware of the mistake. At sun-set I was about eight or nine miles off shore, and made nearly a S.W. by S. course

S. course good (12 miles) till 10 o'clock, when I anchored, and found myself at day-light about six miles to the southward of Tanjorain-bay, it bearing W. by N. in 15 fathoms, clay. During the last hour's run I had deepened one fathom and a-half, although running into the bay. This remark may appear trivial to some people; others may think with me, that every thing that tends to promote the security of navigation is of consequence. Thus far the shore continues bold to two or three leagues. To the southward of Tanjorain-bay the hills recede in land, and the coast becomes very low, and covered with small trees. The soundings also change from clay to sand. How far the bank stretches out to sea I know not; the general track is in about eight or nine fathoms. In standing in with the land you have frequent overfalls of one or two fathoms, owing to the bottom being formed in ridges coastway. In several places where I have sent my boat to sound, I have always found the soundings decrease very regularly to the back of the surf; and I believe the shore may be approached to six fathoms with safety. N.E. and S.W. from Packanga-river, about 10 or 12 miles each way, are two remarkable shoal spots, on which, vessels coming from the offing will shoal suddenly from ten to seven fathoms, coarse sand and gravel: they are of no great length or breadth, and within the one to the southward are nine fathoms; and it is most likely the case with the other. They appear to be thrown up by some extraordinary agitation of the sea.

In latitude $3^{\circ} 32'$ N. lies Packanga-river, formerly a place of some note, but which has long since fallen to decay, owing to its being dependent on Rhio, where most of the eastern trade was carried till it fell a sacrifice to the revenge of the Dutch, Packanga is very conveniently situated for trade, having a fine deep water river, deep enough at the mouth to admit vessels of 100 tons burthen. The southernmost of its two mouths has the deepest water, and has a spit of sand, projecting from the south-point of it one and a-half or two miles

miles into the sea. To the northward of this spit, in six fathoms water, soft ground, the spit bearing S. half W. and Pooloo Timoan S.E. the west extreme of Packanga-river S.W. one-quarter W. distance off shore two or three miles, vessels will find good anchorage.

Note. The produce of this place is gold-dust, tin, and rattans. S.E. one-half S. distance 29 miles from Packanga-river, lies the little island of Varilla; it is a rocky mass crowned with a few bushes, and may be seen five or six leagues, in clear weather. To the N.N.E. of it, distance about two miles, is a ledge of rocks above water. E. half N. distance about nine or ten miles from it is a shoal of coral rock, on which the General Elliot anchored. By sounding, with their boats, and by their run, they judged it to be about three miles in length, north and south; and half a mile in breadth, east and west; and the least water they found on it was six fathoms, coral rocks; and had the cast before they came on it 18 fathoms, at the same time I was half way between them and Pooloo Varilla in 13 fathoms and a-half; the island bearing W. one-quarter S. distance about five miles.—I anchored with these bearings and soundings for the night. Next morning I stood for Pooloo Varilla, and found regular sand foundings the whole of the way, except in some spots had black mud, as the General Elliot had without us. This shoal lies nearly in the track of vessels bound to Tringano and Siam, as laid down in the chart: but they have no business under 25 fathoms until they near Pooloo Brala.

In returning to the southward, I passed between Pooloo Varilla and the main: when it bore East, distance about four miles, had nine fathoms and a-half, coarse sand. From hence I worked, as winds permitted, to go without Pooloo Timoan; found the foundings in general very regular and good; but very threatening weather, and a strong current setting through the islands to the S.W.

Vessels bound to India through the Straits of Malacca may go within

R

the

the islands Timoan Pissang and Pooloo Aura, Pooloo Tingy and the main. I have been well informed the passage is safe, all the dangers being in sight; and no vessel has any business to run in the night. I left Pooloo Aura the 10th of October (bound to the southward), had blowing weather, with a hollow swell from the S.W.; the wind very scant, so that I made no better than S.E. half E. course good. The second and third days little wind, with pleasant weather, and the swell abated, (which rises and falls as quick as the wind); soundings from 26 to 31 fathoms, blue clay; the current shifting pretty regular, from S.E. to S.W. twice in 24 hours. The third day I saw the island of St. Victoire, which I found very correctly laid down in Mr. Dalrymple's charts of the China Seas. Shortly after I saw the island of St. Julians, which is further to the eastward seven or eight miles than it is laid down in the same chart. To the eastward of it we could just discern another island. These islands may be seen very plainly in clear weather 10 or 11 leagues. From the 13th to the 16th made nearly a south course about 50 miles, being obliged to anchor frequently on account of the currents, and the wind still hanging to the S.W. with frequent calms. From the 17th to the 21st, the wind began to favour us, by veering from S.W. to S.E.; the 18th we made Lingin-peak, which I am positive may be seen 20 leagues. The soundings I have experienced in this track does not at all agree with the account in the English Directory, as there is no such deep water to the eastward as it lays down.

I have frequently found a difference of seven or eight fathoms, as may be seen in my track. As I came to the westward I observed the same kind of stinking scum which I had seen in July.

Pooloo Taya may be seen in clear weather from the mast head 15 leagues, as I have experienced in my run to and from it. To the southward of Lingin I saw a range of hammocks, stretching to the E.N.E. which I conceive to be part of Lingin island. To the westward

ward I also saw several of the islands which form the N.E. side of the Straits of Durian; Pooloo Taya bears S.E. half S. From Lingin-peak I saw them in one, when six or seven leagues from Pooloo Taya, in 14 fathoms, sand and shells.

The Seven Islands lie a little way further to the eastward of Pooloo Taya than they are laid down in the charts. The northernmost island has three or four rocks or islets detached from it, but no other danger to the westward of it that I saw. When it bore E. by S. I am pretty certain I saw breakers to the E.N.E. from the mast head; they therefore must bear nearly N. from the Seven Islands, distance five or six miles. When I passed to the eastward of these islands, in the month of July, I saw a shoal bearing N. by E. from them eight or nine leagues. A good look-out ought therefore to be kept in crossing the north of their meridian. To the southward of the Seven Islands are laid down several islands that do not exist; for the only islands to the northward of Banca are those Seven Islands, which are improperly called Green Islands: they stretch along the coast eight or nine leagues N.E. and S.W.; so that they may easily be supposed to form a part of the north-side of Banca, whereas, in reality, they are separated, having a good channel within them. Any person happening to fall to the eastward, may coast them with safety in 15 or 17 fathoms, sandy soundings. This track will carry him clear of some rocks that lie a little to the northward of them.

SOME ACCOUNT OF THE MANNERS AND CUSTOMS AT
TRINGANO.

At Tringano the same ceremony is to go through as at Succadanna, with regard to your first visits, &c. (viz.) When you arrive, your first visit must be made to the king's Dattoo (or merchant), who will introduce you to the King and all the male part of the royal family. It is the custom here (as at all other eastern ports) to give a present at your first audience, which you must proportion according to the rank of the people. The King's present should not be less than the value of 50 dollars; the Raja's about 30; and the Shabundar and Agent about 20 each: these are the only presents absolutely necessary to be given at this place. It will be proper to visit the Dattoo after you have seen the royal family; a little attention to him may be of service in the course of your business, as he can give you every information as to the markets.

You will find the King much more of a courtier than the King of Succadanna; and he will treat you with much more respect: Manually, his brother, is perhaps as good a black man as you can meet with; is a good merchant, and punctual in his agreements. I cannot say so much for the young King, or Prince of Wales, or the king's Dattoo, Nasserdeen; the former is a fool, and the latter a knave in all his dealings: but your own good sense will point out your interest, in keeping on a good footing with these people, and all who are particularly in high power.

Customs.

5 per cent.—when paid.

200 Spanish dollars anchorage—when paid.

To

To avoid these duties you must make a bargain, and stipulate that you are to be free from all duties, which is the only way to get off.

Pepper they have in great abundance; of tin they sometimes get a small quantity from Banca: they have gold of a finer quality than at Mompurva; but the same precaution must be taken as at Succadanna, viz. to have the king's seal on it, and he to be answerable for the quality, &c. &c.

Price of Exports.

Pepper for cash $14\frac{1}{2}$ Spanish dollars, per pecul of $133\frac{1}{2}$ lbs.

Tin d^o 18 d^o d^o d^o

Gold 19 Spanish dollars per tale weight of $1\frac{1}{2}$ Spanish dollars, or 380 Spanish dollars per catty of 30^{ds} weight.

All goods are weighed here with a dotchin, except gold.

DIRECTIONS

FOR SAILING FROM MADRAS THROUGH THE STRAITS OF
MALACCA TO CHINA.

IN sailing from Madras I would, by all means, advise you to go through the Sombrero Channel, that being an open and clear one, at least six leagues wide, and bold to on either side, from one mile to the southward of Passage Island, to two and a-half on the north side.

By going through the Sombrero Channel, you not only cut off a great deal of ground, but always find a current setting strong to the east-

eastward, which continues at a little distance from the Malay shore all the way to the sand heads.

Having passed the Sombrero Channel, shape your course for Pooloo Jarra, and from thence S.S.E. towards the sand heads, which course will carry you to the northward of the Arroes, and bring you on the north-sand, on which you will shoal your water very fast. Be not alarmed should you get into ten or even eight fathoms; but haul to the southward, and keep in 13 fathoms; this will carry you towards the two and a-half fathom banks without danger, even should you not see the Arroes. From this, adhere to Mr. Nicholson's directions, which are exceedingly good, as far as Mount Formosa; but when you are that length, you will find Mr. Nicholson mentions a four fathom bank; let this be no obstacle to your standing over it. Should you have a working wind, and gain any advantage by so doing, you may depend on it, there is nothing will bring you up on any part. The shoalest part is with Mount Formosa North, and Pooloo Pissang East, four fathoms, hard sand at low water spring tides.

Having passed Pissang, follow the Directory as far as Pedro Branco; recollecting, at the same time, that should you be becalmed, and the tide making against you between Barn Island and St. John's, there is a good bank of 16, 17, and 18 fathoms to anchor on, and about midway between them and a little on the north side.

REMARKS ON A SHOAL, ON WHICH THE SULTAN STRUCK.

A.M. weighed with the flood-tide, wind S.W. by S. and worked to windward far over to the Malay shore. At half past 10 o'clock struck on a bank, backed all sails, wore round, and anchored in 14 fathoms, soft mud: bearings, when aground, as follows, The northernmost point of the Little Carrimons W.S.W. half W. about five or six

fix leagues; the south-end of Barn Island and the Rabbit and Coney open S.E. distance eight miles; Tree Island S. half E. seven miles; Tonjong Bolus W. by N. five leagues. Sounded round the reef with two boats; one of the boats anchored on it in three feet water, rocks and sand: the other boat rowed round the reef, and had the above bearings and soundings. On the courses steered as follows: W. S.W. half W. one mile, and had 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 fathoms, N.W. one-quarter of a mile, S.E. one-quarter of a mile, and S. one-quarter of a mile.

The above reef Mr. Nicholson lays down tolerably well and exact, but much nearer the Malay shore than it really is. I am convinced it is more than six or seven miles from the Malay shore, and much in the fair way of ships with a working wind. It is also very dangerous, as you can see nothing of it at high water until you are aground upon it. At low water it is dry, and appears a dangerous reef of rocks, having 10, 8, 7, 6, fathoms, and one-third of a cable's length distance sand and mud; and its extent does not exceed one cable's length. We got on it at high water, hove off, and did not weigh till it was dry; and examined it with the boats as before expressed.

Note. In working up and down you must not bring Barn Island to the eastward of S.E. by S.; nor bring the northernmost part of the Carrimons to the southward of W. half S. five or six leagues, or you will be very near this reef.

Having rounded Point Romania, by Mr. Nicholson's directions, and being bound to China, steer from the reef off Point Romania N.N.E. till you are in the latitude $5^{\circ} 20' N.$ or $5^{\circ} 30' N.$; this course will carry you within four leagues of Pooloo Auro, then steer N.E. by N. and observe, that when in the latitude of Pooloo Condore *to heave* too and *sound*.—If your depth of water should be 52, 55, or 57 fathoms, you may depend on it Pooloo Sapata will bear from N. by E. to N. by E. one-quarter E.; and by continuing the

same course, will carry you within six or seven leagues of Pooloo Sapata.—This I have found by experience of several runs, with little variation: however, it sometimes happens that ships are benighted before they see Sapata; should this be your case when in latitude $9^{\circ} 30'$ or $9^{\circ} 35'$ N. heave too and sound: if you have no ground 100 fathoms, haul up north, and run five miles; then if no ground 100 fathoms, haul in N.N.W. for five miles; and should you get ground 85, 90, or 95 fathoms, mud and sand, you may depend on Sapata bearing about N. half W. or N. by W. distance four leagues. Then steer E.N.E. 10 or 12 miles, and haul up N.E. by N. or N.E. half N. to get soundings on the Macclesfield Shoal. But should you be passing Sapata between the 1st and 15th of September or later, I would recommend you to steer N.E. till in latitude of 16° N. then N.N.E. so as to be about $5^{\circ} 30'$ or $5^{\circ} 40'$ E. of Sapata, by the time you are in the latitude of the north part of the Scarbrough Shoal; then steer North till in latitude of $20^{\circ} 30'$ N. keeping a good look-out for the Pratas Shoal; then N. by W. till in the latitude of $21^{\circ} 30'$ N. when, if no land is seen, you may be assured you are to the eastward. However I would recommend you to sound in this latitude, and if you have ground at 50 or 55 fathoms, the Lema Islands will bear about N. or N. half W. of you.

Recollect the tide between Pareclar Hill and Cape Richardo sets nearly N.N.W. half W. and S.S.E. half E. as Mr. Nicholson mentions.

REMARKS ON A VOYAGE TO CHINA.

The proper season to leave the Malabar coast for Canton is from the 1st of April to the middle of May, by which means you will have sufficient time to stop in the Straits of Malacca to purchase tin, pepper, beetle (areka) nut, rattans, sea swallow, (called, beach de mar by the

the Portuguese; and trepong, by the Malays) and birds nests; all of which, if well laid in, will nett a handsome profit at Canton.

The articles of trade from Bombay and the Malabar coast, are chiefly cotton, pepper, sandal wood, putchick, shark fins, olibanum, elephants teeth, rhinoceros horns, pearls, cornelian stones, and beads.

When you make the land, and are near the Ladroon, a Chinese pilot will come on board, to carry you into Macao-roads, and bring the ship to an anchor. The pilot will then go on shore to report to the head Mandarine, at Macoa, of what nation you are. Should there be any women on board, application must be made to the bishop and synod of Macoa, for leave to put them on shore, as they will not be permitted to go to Whampoa in the ship.

As soon as the Mandarine at Macoa is satisfied in all his inquiries, he orders off a river pilot, who never comes on board until you have laid 24 hours in the roads *, and brings a chop (a licence) to pass the Bocca Tigris (the mouth of the Canton river), and carries the ship to Whampoa.

The captains and super-cargoes are allowed, as a great favour, to wear a flag in their boats, which passes them without stopping to be examined at the different hoppo houses; but all other boats must stop to be searched, and have their chop examined. Some commanders who have lent their flags to others, have, by such abuse of the indulgence, been deprived of it for the season.

Canton is about 15 or 16 miles from Whampoa; and in that distance are five hoppo, or chop houses, which to call and stop at are very troublesome, particularly if in haste to town; for this reason the indulgence of the flag ought particularly to be attended to.

* I have frequently weighed and run up to Linting, to anchor under shelter of that island, in the event of a taffoon coming on. It was the more necessary for me to do this, as I was always a late ship to China, never arriving before the latter end of October, and sometimes not before November; for the trade upon the Malay coast requires you to stay as long as possible.

The day after your arrival at Canton, the Cohong, or directors of the Chinese Hong merchants, will wait upon you *. To these merchants you give a manifest of your cargo. When one of them, who becomes security for your performance of the customs of the port, carries the manifest to the head Tontiff (generally called, John Tuck), to regulate the Emperor's duties, which, however, the importer knows nothing of; as the customs and duties are paid by the purchasers. He afterwards summons a meeting of the Hong merchants; the manifest is laid before them, and they fix a price upon your goods; with which you must be contented, as no other merchants but the Cohong are allowed to purchase.

There are two hoppo (or custom-house boats) stationed to each ship, one on each side; and when you are delivering your cargo they attend, and weigh it all before it is put into the boats which convey it to Canton; where it is again weighed, to see if the weights agree with that taken on board, which is seldom or never the case, on account of the embezzlement, which invariably happens, by the boatmen, between the ship and Canton, for the Chinese exceed greatly the watermen upon the Thames in filching and chicanery.

If you come to market early, and expect other ships to arrive soon after with the same kind of articles your cargo is composed of, I would advise you to take the Hong merchants first offer, provided it is nearly the price you expected, as probably, by your refusal, they will leave you, and perhaps not return or see you for eight or ten days, well-knowing that you cannot dispose of your cargo to any others: and that from Canton you have no market left to choose or go to.

* The Company of Hong Merchants consist of twelve, who are particularly licensed by the government; and the government are security for the performance of their contracts, engagements, and payment of their debts; though the government seldom perform the guarantee, and never fully.

After you have agreed about the prices, money, and time of payment, which will be settled at seven mace two candereen per head, or Mexican dollar, you must insist upon the payment being made in one month from the delivery; for if you are a late ship, some of your own payments may become due before you are in cash, or have assets in hand to retire them.

Having effected the sale of your cargo, the Hong merchant furnishes you with a chop to deliver your cargo, and sends boats down to Whampoa to receive it, in such numbers as you please to order, though they seldom exceed three boats (or chops) per day, being as many as they can well attend to during business hours, which is generally from ten in the forenoon till two in the afternoon.

I would recommend to have two or three of the ship's company in each boat to prevent plundering; for although the boats are close covered and locked up, yet these Chinese watermen are so very dexterous at the trade of embezzlement, that, in despite of your greatest care, they will steal a great deal, particularly tin. I have experienced this article changed in the boats, and small slabs substituted in lieu of large ones. I suffered severely once at Calcutta by the same kind of dexterity, of my owners Sircars, who changed the large for small slabs of tin: I was obliged to pay for the deficiency, although my chief mate made affidavit that the tin was weighed, and delivered to the Sircar with the owners weights and scales the same it was purchased by.

You have no occasion to hire warehouses at Canton for the receipt of your cargo, as it is weighed and carried off immediately upon landing. Here the Emperor's as well as the Hong merchants' clerks or writers attend, check the weights, and take the account of the delivery. They are very fair in the weighing of your cargo, being done by English weights, and weights of fifty pounds (instead of fifty-sixes, or half hundreds); and afterwards reduced to cattys, by

multiplying by three, and dividing by four; and then reduced to piculs, by dividing the product by one hundred.

When there are ships which have not been measured at Whampoa, the head Mandarin sends word to the Hong merchants, appointing a day to go down the river for the purpose of measuring the ships; which is put off until there are six or more ships waiting, (for the Mandarin will not go down in the early part of the season to measure a less number than six). The Hong merchant informs you, through your linguist, the day the Tontiff means to go down; when it is expected all work shall be suspended, and the commander of the ship, supercargo, and officers will attend dressed; and the Hong merchant, by (the Comprodore *) sends tea, sweetmeats, &c. for his (the Tontiff's) entertainment on board. The boat in which the Tontiff is carried, is distinguished from his attendants by a yellow flag, which is the Imperial colours; and as soon as he comes in sight of the ships at Whampoa, a boat with an officer is sent off from each ship which is to be measured to attend him. Some years ago the ships used to salute him, but that ceremony is dispensed with since an accident happened in the *Lady Hughes* in 1785, by one of the wads from her guns killing a Chinese; for which the gunner of that ship (according to their laws) was strangled.

As the ships invariably strip their rigging, to examine (or overhaul) at China, care should be taken, before the Tontiff comes on board to measure, to have the after wedges of the foremast knocked out, the stay taken off, and the mast wedged from the foreside close against the after-part of the partners; the mizen-stay or tackles should be kept on, all the foremast wedges knocked out, and the mast boused and wedged close forward to the foreside of the partners.—The reason of this is, that they measure from the centre of the foremast to the centre of the mizen-mast, for the length: and close

* The House Steward.

abast the mainmast, from outside to outside, taking the extreme for the breadth.

They multiply the length by the breadth, and divide by ten, which, they say, gives the ship's measurement; and charge according to her rate, whether first, second, or third rate, deducting twenty per cent. which the Emperor allows: but seven per cent. is again added to make it touch, that is, equal to fine pure silver: from which calculation there is no appeal; nor is your ship properly reported and entered until after this ceremony is gone through.

The rates of ships are generally allowed after this measurement, viz. Seventy-four covids, of fourteen and a-half inches long, and twenty-three covids broad, are called first rates.

Second rates are under seventy-four covids long and twenty-three broad, to seventy-one covids long and twenty-one covids broad: and all under seventy-one covids long and twenty-one covids broad are accounted third rates.

The duty on first rates are seven tale, seven mace, seven candereen, and seven cash per cavid.

The new teas and china-ware seldom arrive at Canton before the beginning of November; this is almost an unerring rule to guide you in the purchase of your teas; for be assured all that are offered before this time are the remains of the old stock from the former season.

In purchasing your goods for a returning cargo, you are at liberty to buy, where and of whom you please, though the best teas are always to be had from the Hong merchants; and in making your bargains never omit settling the exchange at which you pay your dollars; for though you receive them from the Hong merchants at seven mace two candereen, you pay them away at seven mace five candereen, for teas, silk, musk, tutenague, sugarcandy, and soft sugar, lacquered-ware, &c. &c. &c.; by which you save four and one-sixth per cent.

The Emperor's present, from ships of all descriptions, whether large or small, as fixed in 1754, and is now become a certain claim or custom, is one thousand nine hundred and fifty tales, exclusive of the measurement duties.

The general Exports for the India Market—are

tutenague, china-ware, hartall (a yellow paint, inferior to gumbooge), tea, silks and fattins of all sorts, velvets, ribbons, artificial flowers, hams, paper, thread, copper (white and yellow), china-root, stockings, sugarcandy, allum, camphor, quicksilver, dammer, sugar, red-lead, vermilion, lacquered ware, furniture, toys, &c. &c.

The general Imports I have already mentioned—in addition to which may be added, cardemums, sago, teapoy (or mother of pearl), shells, turtle-shells, glass of all descriptions, broad-cloth, kerseys, hats, scarlet-cloth and cuttings, furs of all kinds, spices of all kinds, and bullion.

Coins.

10 cash, make 1 candereen,
10 candereen, make 1 mace,
10 mace, make 1 tale.

Weights.

10 candereen, make 1 mace,
10 mace, make 1 tale,
16 tale, make 1 catty,
100 cattys, make 1 pecul of $133\frac{1}{3}$ lbs. avoirdupois.

Long Measure.

10 punts, make 1 covid, of 14½ inches English.

Having said thus much of the customs and usages at Canton, I shall close the account with a few more remarks for the guidance of the merchant adventurer and trader.

In making your silk contracts * follow these

Rules:—

Find out who are the merchants of credit and proper to be trusted; but get every thing from a Hong merchant, if possible, as they should be punctual to a day in their delivery. The agreement stipulates the length, breadth, colour, and weight (in tales) of each piece; but all this they will comply with, and deceive you, if you do not use the utmost circumspection.—For this reason it is better to pay a little extraordinary to a merchant on whom you can depend, than run a risk of losing a great deal, and be disappointed in your expectations on the sale.

It is necessary to be exact in describing the colours; for which purpose the silk merchant will shew you several bundles of sewing silks, of various colours; from which (besides naming the colour) you can choose, and shew it him.—Particularly request that the silks may be all bright colours, and glosses; that the whites be all perfectly white (or colourless), and not a dead cream colour, (which they frequently are); that the blacks be not an iron (or rusty) colour, but jet black; and when you attend to pack them, examine each piece carefully, and let it be on a very dry and hot day.

* Because they are never to be got ready, or good. It requires seventy days to get plain, and ninety days to procure flowered silks to be made.

Teas yield the greatest profit of any article exported from China; but it is requisite to pay as much attention to them as to your silks: and to be cautious in choosing your merchant of whom you purchase, that he is a man of character: but, as I before observed, make all the purchases you possibly can from a Hong merchant.

If you put your tea in cattys, have them ready seasoned, but pack no tea in single cattys, and in double cattys put only thirty-two or thirty-three ounces; so that what is short of two cattys pays for the empty catty. I would recommend to a small adventurer to buy or lay in only the very best sort of teas, such as pekoe, gunpowder, hyson, and padrae fouchong, which will always find a sale, when coarser teas will not go off.

Tinsel and copper of all descriptions are prohibited, and all of which you purchase must be smuggled on board: the fees for doing which reduces the profits so much as to make it scarce worth the trouble. If you purchase tinsel, which is made up in rolls of one catty each, you must contract for the number of leaves or sheets to be in each: I believe forty leaves are the general number: if you do not agree accordingly they will make the leaves thicker, perhaps, from twenty-five to thirty-five leaves, which will reduce your profits on the sale. As those thick pieces are not so valuable, I would recommend that you agree for forty-five or fifty leaves to the catty; and even pay a little extraordinary for it.

The china-ware proper for the India market are chiefly cruddled plates, and sneakers (pint basons) of the same size, strength, and fineness; plates of the same sort without sneakers; bowls and dishes, either with or without four flowers on the outside. There are a sort of plates and sneakers all white, as strong as the cruddled ones, and they are cheaper than the cruddled: no other china will suit the native markets, except the dragon china, but that is from fifteen to twenty per cent. dearer, and the breakage will be near as much; whereas the breakage on cruddled china seldom exceeds five per cent. and the merchant

chant allows you two per cent. for breakage, which is deducted from the price of all china-ware, for the accidents that may happen in conveying it on board, from Canton to the ship.

The china-ware proper for the Europeans tables are, the best stone china, whole long sets, tea sets, and an extra quantity of flat plates, dishes, and snakers. Choose your china of a brilliant and deep blue, and purchase by a muster (or sample), rejecting all which are of an inferior quality.

I trust the foregoing advice, with very little experience, will be a sufficient guide to the Chinese market; for there can be no fixed prices, as there is not any market in the world which fluctuates so much as that of Canton.

As China, from the vast extent of the empire, is a principal market for almost all the produce of India, it may not be thought superfluous to give some account of the people, their dress, and customs.

In general the Chinese are of the middle stature, their faces broad, their eyes black and small, and their noses rather short and flat.—The women have little advantage of the men in point of beauty: the only thing for which they are remarkable is the smallness of their feet, which are swathed up when they are young to make them so; this appearance is much esteemed by the Chinese, but highly disgusting to an European, as the ankle is thereby rendered thick and disproportionate, and they totter as if in continual danger of falling as they walk; notwithstanding all these disadvantages, the Chinese women think nothing so ignominious as to be said to have large feet; on which account they hold the Tartar women in great contempt, who suffer their feet to grow as nature has formed them.

The men pluck the greatest part of their beards out, by which their faces are rendered remarkably smooth, and gives them an effeminate appearance.

Upon the crown of their heads they wear a single lock of hair, (shaving all the rest) which they plait, and artfully join to it false

hair until it touches the ground: the length of the lock is allowed to be a great ornament.

They leave the nails of their little and third fingers growing to an enormous length, to shew they are not employed in manual labour.

The dresses of the men and women differ very little: the chief difference is, that the women wear a collar to their shirt, or inner garment, and the men's are cut round (without a collar), like a woman's shift.

In summer their dresses are light, and calculated to the heat of the climate: at this season all wear fans, upon which their almanack or other memorandum is written, either for business or amusement.—In winter they wear warmer cloathing; and even furs, which are highly in demand, particularly those of the sea-otter, beaver, and seal-skin.

They are ceremonious to an extreme, and appear very polite and affable; but these exterior accomplishments are only a cover to their duplicity and fraud: they excel every nation upon earth in cheating and deceit, as well towards each other as to strangers.

I shall here give a caution to those who may be interested. When at Whampoa, and preparing for sea, the Comprodore, who attends and supplies your ship, should put your stock on board a week or ten days before you sail, as every thing is sold by weight in China, except eggs and milk. They mix salt with the food of all the live stock, and then give them water in abundance to drink to make them heavier; and it frequently happens that more than one-third of the stock dies. The Chinese eat every thing, whether it dies, or is killed: the stock thus dying, and thrown away, is picked up by them and eaten. For these reasons the stock should be on board at least three days before they are weighed, or received from the Comprodore.

Theft, in this country, is punished before a Mandarine, either by
flogging

flogging or cutting off the lock of hair, the loss of which is reckoned the greatest mark of infamy.

To sum their character up in a few words, the Chinese are the most faithless, deceitful, cowardly, and thievish set of people in the world.

Europeans at Canton are not permitted to enter the city, but are confined to the suburbs.—The hong, or factories, in which they reside, are not unlike long courts, having no thoroughfare, or outlet, at the inner end; and generally contain from four to five factories, or separate houses, in each hong. They are built on a fine quay, and have a broad parade in front; the promenade is railed in, and generally called the Respondentia Walk, where all the European merchants, commanders, and officers of ships meet after dinner, talk of business, and form parties for the evening. This, in my opinion, is the most sociable part of the world, where Europeans of all nations meet, divested of ceremony; but never forgetting etiquette and good breeding.

This country is well supplied with fish, of which the great numbers of rivers, intersected by innumerable canals, and the industry of their fishermen, furnishes them with a great plenty of both the fresh and salt water kinds.

They have, besides, great numbers of gold and silver fish, which are kept in large stock ponds, as well as in glass and china vases, for the inspection of the curious.

These industrious people have a mode of making paper from the bamboo, which forms a great article of their export.

The tea plant of China, of which some account is hereafter given, with their china-ware, furnishes the Chinese with their principal articles of export, for which they receive from this country, as well as other nations of Europe, and the Americans, large quantities of silver bullion, and money; having the balance of trade much in their favour.

Ginseng, of which the Chinese are so fond, and of which they

have the highest opinion, as a panacea for all disorders, was once an article of great esteem and value among them, and that of their own growth still bears a great price, though they have been latterly supplied with large quantities of it by the Americans, with whom it is a natural produce in great abundance; and they now participate with us a large proportion of the China trade.

There are many drugs and vegetables in China of a medicinal quality, particularly rhubarb, china-root, snake-root, and farfaparilla.

They have tobacco also in great plenty, which they manufacture after a peculiar manner:

Their principal Exports—are

tea, china-ware, gold (in bars), sugar, sugar-candy, rhubarb, china-root, snake-root, farfaparilla, leather, tutenague, japan copper, varnished (or lackered) ware, drugs, leaf-gold, gold-thread, utensils made of (white and red) copper, cast-iron, silk (raw and wrought), thread, &c. &c.

China produces white-copper, of which beautiful metal they make various utensils, which are smuggled out of the empire, the exporting of copper being prohibited.

It produces grain of every kind in great abundance, excellent oranges, grapes, figs, pomegranates, and many other fruits.

Few countries are better supplied with horses, oxen, hogs, buffaloes, poultry, and game of every kind.

The musk-cat is also found here in great numbers, which carries that valuable perfume in a kind of bag under its navel. This perfume is a valuable article of commerce to the Chinese.

With respect to birds, they have eagles, cranes, storks, peacocks, pheasants, swans, geese, ducks, teal, widgeon, snipe, curlew, partridge,

tridge, and all other game, except the woodcock, which I never could see or find.

The golden pheasant of China is not only remarkable for the beauty of its plumage, but for the delicacy of its flesh, which, on account of its flavour, is as much sought after by the epicure, as the bird is by the curious for its singular beauty.

Before taking leave of China, it will be proper to mention their method of assaying gold; and also a description of some of the chief articles of export and import which have not been already noticed in this work.

Chinese Touch-needles. Those who are accustomed to the inspection of gold variously alloyed, can judge, nearly from the colour of any given mass, the proportion of alloy it contains, provided the species of alloy be known. Different compositions of gold, with different proportions of the metals which it is commonly alloyed with, are formed into oblong pieces, called needles, and kept in readiness for assisting in this examination, as standards of comparison.

The standard gold of Great Britain is of twenty-two carats; that is, it consists of twenty-two parts of fine gold, and two of alloy. The Chinese reckon by a different division, called touches, of which the highest number, or that which denotes standard gold, is one hundred; so that one hundred touches correspond to our twenty-four carats; seventy-five touches to eighteen carats; fifty touches to twelve carats, and twenty-five to six: whence any number of the one division may be easily reduced to the other. The proportion, in the composition of the several needles, are adjusted in a regular series, according to the carat weight: the first needle consists of fine gold, or of twenty-four carats; the second of twenty-three carats and a half of fine gold, and half a carat of alloy; the third, of twenty-three carats of fine gold to one carat of alloy: and so on, the gold

gold diminishing, and the alloy increasing, by half a carat in each needle, down to the twentieth carat; all below this are made at difference of whole carats; half a carat being scarcely distinguishable by the colour of the mass, when the proportion of alloy is so considerable. Some make the needles no lower than to twelve carats, that is, a mixture of equal parts of gold and alloy: others go as low as one carat, or one part of gold to twenty-three of alloy.

Four sets of these needles are commonly required; one in which pure silver is used for the alloy; another with a mixture of two parts of silver and one of copper; the third with a mixture of two parts of copper to one of silver; and the fourth with equal parts of the two; to which some add a fifth set, with copper only, an alloy that sometimes occurs, though much more rarely than the others. If needles so low as three or four carats can be of any use, it should seem to be only in the first set; for in the others the proportion of copper being large, the differences in colour of different sorts of copper itself will be as great as those which result from very considerable differences in the quantity of gold when the copper is nearly equal in quantity to the gold, very little can be judged from the colour of the mass.

In melting these compositions, the utmost care must be taken that no loss may happen to any of the ingredients so as to alter the proportions of the mixtures.

The colours are best examined by means of strokes, drawn with the metals, on a particular kind of stone, brought chiefly from Germany, and called, from their use, a touch-stone; the best sort of which is of a deep black colour, moderately hard, and of a smooth but not polished surface; if it be too smooth, soft gold will not easily leave a mark upon it; and if rough, the mark proves imperfect; if very hard, the frequent cleaning of it from the marks, by rubbing it with tripoli or a piece of charcoal wetted with water, gives the surface too great a smoothness; and if very soft it is liable to be scratched

scratched in the cleaning. In want of the proper kind of stone, moderately smooth pieces of flint are the best substitutes: the more these approach in colour to the other the better.

The piece of gold to be examined being well cleaned in some convenient part of its surface, a stroke is to be made with it on the stone, and another close by it, with such of the touch-needles as appears to come the nearest to it in colour; if the colour of both, upon the stone, be exactly the same, it is judged that the given mass is of the same fineness with the needle: if different, another and another needle must be tried, till one be found exactly corresponding to it. To do this readily practice only can teach.

In making the strokes, both the given piece and the needle of comparison are to be rubbed several times backward and forward upon the stone, that the marks may be strong and full, not less than a full inch long, and about a tenth or an eighth of an inch broad: both marks are to be wetted before the examination of them, their colours being thus rendered more distinct: a stroke which has been drawn some days, is never to be compared with a fresh one, as the colour may have suffered an alteration from the air; the fine atoms left upon the touch-stone being much more susceptible of such alterations than the metal in the mass. If the piece be supposed to be superficially heightened by art in its colour, that part of it which the stroke is designed to be made with should be previously rubbed on another part of the stone, or rather on a rougher kind of stone than the common touch-stones, that a fresh surface of the metal may be exposed: if it be suspected to be gilt with a thick coat of metal finer than the internal part, it should be razed with a graver to some depth, that the exterior coat may be broken through: cutting the piece in two is a less certain way of discovering this abuse; the outer coat being frequently drawn along, by the sheers or chisel, so as to cover the divided parts.

The metallic compositions, made to resemble gold in colour, are
readily

readily known by means of a drop or two of aquafortis, which has no effect upon gold, but dissolves or discharges the marks made by all its known imitations. That the touch-stone may be able to support this trial, it becomes a necessary character of it not to be corrodible by acids; a character, which shews it to be essentially different from the marbles, whereof it is by many writers reckoned a species. If gold be debased by an admixture of any considerable quantity of these compositions, aquafortis will, in this case, also discharge so much of the mark as was made by the base metal, and leave only that of the gold, which will now appear discontinued, or in specks. Silver and copper are in like manner eaten out from gold on the touch-stone; and hence some judgment may thus be formed of the fineness of the metal, from the proportion of the remaining gold to the vacuities.

It has been observed that hard gold appears on the touch-stone less fine than it really is. It may be presumed that this difference does not proceed from the simple hardness, but from the hardness being occasioned by an admixture of such metallic bodies as debase the colour in a greater degree than an equal quantity of the common alloy. Silver and copper are the only metals usually found mixed with gold, whether in bullion or in coin; and the only ones whose quantity is attempted to be judged of by this method of trial.

The Chinese are extremely expert in the use of the touch-stone, so as to distinguish by it so small a difference in the fineness as half a touch, or a two hundredth part of the mixture. The touch-stone is the only test by which they regulate the sale of their gold to the European merchants: and in those countries it is subject to fewer difficulties than among us, on account of the uniformity of the alloy, which there is almost always in silver; the least appearance of copper being used in the alloy gives a suspicion of fraud. As an assay of the gold is rarely permitted in that commerce, it behoves the European

TABLE of Correspondence between the European and Chinese Divisions representing the Fineness of Gold.

Carats.	Touch. 24ths	Carats.	Touch. 24ths	Carats.	Touch. 24ths
24	100 0	16	66 16	8	33 8
23 $\frac{3}{4}$	98 23	15 $\frac{3}{4}$	65 15	7 $\frac{3}{4}$	32 7
23 $\frac{1}{2}$	97 22	15 $\frac{1}{2}$	64 14	7 $\frac{1}{2}$	31 6
23 $\frac{1}{4}$	96 21	15 $\frac{1}{4}$	63 13	7 $\frac{1}{4}$	30 5
23	95 20	15	62 12	7	29 4
22 $\frac{3}{4}$	94 19	14 $\frac{3}{4}$	61 11	6 $\frac{3}{4}$	28 3
22 $\frac{1}{2}$	93 18	14 $\frac{1}{2}$	60 10	6 $\frac{1}{2}$	27 2
22 $\frac{1}{4}$	92 17	14 $\frac{1}{4}$	59 9	6 $\frac{1}{4}$	26 1
22	91 16	14	58 8	6	25 0
21 $\frac{3}{4}$	90 15	13 $\frac{3}{4}$	57 7	5 $\frac{3}{4}$	23 23
21 $\frac{1}{2}$	89 14	13 $\frac{1}{2}$	56 6	5 $\frac{1}{2}$	22 22
21 $\frac{1}{4}$	88 13	13 $\frac{1}{4}$	55 5	5 $\frac{1}{4}$	21 21
21	87 12	13	54 4	5	20 20
20 $\frac{3}{4}$	86 11	12 $\frac{3}{4}$	53 3	4 $\frac{3}{4}$	19 19
20 $\frac{1}{2}$	85 10	12 $\frac{1}{2}$	52 2	4 $\frac{1}{2}$	18 18
20 $\frac{1}{4}$	84 9	12 $\frac{1}{4}$	51 1	4 $\frac{1}{4}$	17 17
20	83 8	12	50 0	4	16 16
19 $\frac{3}{4}$	82 7	11 $\frac{3}{4}$	48 23	3 $\frac{3}{4}$	15 15
19 $\frac{1}{2}$	81 6	11 $\frac{1}{2}$	47 22	3 $\frac{1}{2}$	14 14
19 $\frac{1}{4}$	80 5	11 $\frac{1}{4}$	46 21	3 $\frac{1}{4}$	13 13
19	79 4	11	45 20	3	12 12
18 $\frac{3}{4}$	78 3	10 $\frac{3}{4}$	44 19	2 $\frac{3}{4}$	11 11
18 $\frac{1}{2}$	77 2	10 $\frac{1}{2}$	43 18	2 $\frac{1}{2}$	10 10
18 $\frac{1}{4}$	76 1	10 $\frac{1}{4}$	42 17	2 $\frac{1}{4}$	9 9
18	75 0	10	41 16	2	8 8
17 $\frac{3}{4}$	73 23	9 $\frac{3}{4}$	40 15	1 $\frac{3}{4}$	7 7
17 $\frac{1}{2}$	72 22	9 $\frac{1}{2}$	39 14	1 $\frac{1}{2}$	6 6
17 $\frac{1}{4}$	71 21	9 $\frac{1}{4}$	38 13	1 $\frac{1}{4}$	5 5
17	70 20	9	37 12	1	4 4
16 $\frac{3}{4}$	69 19	8 $\frac{3}{4}$	36 11	$\frac{3}{4}$	3 3
16 $\frac{1}{2}$	68 18	8 $\frac{1}{2}$	35 10	$\frac{1}{2}$	2 2
16 $\frac{1}{4}$	67 17	8 $\frac{1}{4}$	34 9	$\frac{1}{4}$	1 1

Are equal to

Are equal to

Are equal to

Method of bringing several Touches of Gold into one.

Let the fineness of each sort be multiplied by its particular weight, and let their products be added together for a dividend; then make the divisor, by adding the weights together: the quotient will be the fineness, or touch.

Example.

10 tale	94 touch	940
10 —	92 —	920

—

20

)1860(93 touch of the whole.

180

60

60

—

Tea is the leaf of a small shrub growing in China, and also in Siam and Japan. The dealers in this article distinguish many kinds, which, however, are all leaves of the same tree, and may be reduced to the three general divisions, ordinary green teas, finer green teas, and bohea.

The leaves of the common green tea are somewhat small, crumpled, much twisted, and closely folded together in drying: the colour is a dusky green, and the smell agreeable. The leaves of the fine green tea are larger, less crumpled and twisted in the drying, and more lax in their folds; of a paler colour, but more blooming, approaching to a blue-green. All the ordinary green teas give a

strong yellowish-green colour to boiling water, and the fine green teas give a pale-green, or light straw-colour.

Bohea tea consists of smaller leaves than either of the others, and those more crumpled and closely folded. Its colour is dark, inclining to black.

The shrub that produces tea seldom rises higher than five or six feet. It is much branched and spreading: the leaves are oblong, pointed at the ends, and serrated at the edges. These leaves are collected generally in April and May, and the young ones, taken from the new shoots, are separated from those gathered off the old branches. Upon such distinctions as these, and on separately gathering full grown and only budding leaves, are founded the different qualities of our tea.

After gathering, the leaves are dried, and separated according to their size, &c. Bohea tea is gathered before the leaves are perfectly opened, and is made to undergo a greater degree of heat than green, to which its colour and peculiar flavour are in a great measure owing.

Rhubarb is an oblong tapering root, growing plentifully in China and Tartary, and likewise in Turkey and Russia. The oriental rhubarb is in pieces of four, five, or six inches in length, and three or four in diameter at the top. It is of a smooth even surface, moderately heavy, but not hard; externally of a yellow colour, with an admixture of brown; internally variegated with lively reddish streaks, forming a marbled appearance when cut; the yellow is the ground colour, and the red is disposed in short irregular veins, much in the manner of the darker-coloured nutmegs.

The Chinese are very careful in their manner of drying it; they take up the root only in winter, or early in the spring, before the leaves begin to appear. They cut it into such pieces as they think proper,

proper, and lay it on a table in a shady place, turning it once or twice a day for two or three days; after this they string the pieces on a cord at a distance from one another, and then hang them up in a shady place, where they may dry leisurely. It is by this management the rhubarb is rendered so firm and solid as we find it; for, if it were hung up to dry at once in a warm airy place, it would become light and spongy. They say also, that if the root be taken up in the summer, it is not only light and of little value, but that it has nothing of the reddish marbling, which is one of the great characters of its goodness.

Sometimes the rhubarb-root is cut down the middle, and afterwards divided into pieces of four or five inches in length, which appear flat, and dry better than the round. For some time past flat rhubarb has sold considerably better than round of the same goodness.

Rhubarb is not so often adulterated as damaged. To be good it should be particularly dry and sound: if it be wet or rotten it is worthless. By long keeping it frequently grows mouldy and worm-eaten: and some of the more industrious artists are said to fill up the worm-holes with mixtures, and to colour the outside of the damaged pieces with powder of the fine rhubarb, or with some cheaper materials. The marks of its goodness are, the liveliness of its bright nutmeg-colour when cut, its being firm and solid, but not flinty or hard, its being easily pulverable, and appearing, when powdered, of a bright yellow colour, mixed with a slight coat of red. On chewing, it should impart a deep saffron tinge, and not prove slimy or mucilaginous in the mouth: it should yield a fine yellow colour on being infused a few minutes in water. Its taste is somewhat acrid, bitterish, and rather astringent. Those pieces which appear green or black when broken through the middle, should be rejected.

Ginseng.—This plant was formerly thought to grow no where but in China and Tartary, but it has been discovered in North America, particularly

particularly in Canada and Pennsylvania, whence considerable quantities have been exported. On comparing these with the Chinese specimens, no material difference could be observed in quality or appearance, except that the Chinese, in general, were rather paler-coloured externally, and internally somewhat whiter. It is asserted that the American roots have been received in China as the true ginseng, though without the supposed advantage of their method of preparing it. And it will probably render the importation of the costly Chinese sort unnecessary.

The plant dies yearly; and the age of the root may be known by the number of stalks it has shot forth, when the marks of them are fair and entire: but very old roots not being much esteemed, the people who gather this commodity have the precaution to cut off some, or even all these knobs, before they dry the root. The natives themselves are so nice in this particular, that they will not use an imperfect root, nor any one but what has evident marks that the upper knob is the real head, not having more than one or two under it.

After the ginseng is gathered, it is washed and scoured, then dipped in scalding water, and prepared by the following process. A sort of yellow millet is put into a vessel with a little water, and boiled over a gentle fire: the roots are laid over the vessel upon small transverse pieces of wood, being first covered with a cloth, or having some other vessel placed over them. This gives them the colour admired by the Chinese. When the roots are dried, they must be kept close, in some dry place, otherwise they are in danger of corrupting, or of being destroyed by worms.

Ginseng is to be chosen sound and firm: if the worm be in it the root is worthless. It should be moderately heavy, not very tough, but such as will snap short, and afford an agreeable smell. It should be carefully packed, so as to be kept extremely dry. It

would not be imprudent to cut the roots through, as the Chinese frequently introduce a piece of lead to increase the weight.

The *Bezoar* is a medicinal stone, to which extravagantly-efficacious qualities were formerly attributed, but which latterly has been more lightly esteemed. It is produced in the stomach of an animal of the goat-kind, inhabiting the mountains in different parts of Persia. It is of the size of our common deer; and its coat of hair is of a grey colour inclining to a rusty brown. The head is shaped like that of our goat; the horns are near three feet in length when the creature is full grown; they are strait, and, in that part which is near their insertion on the head, they are annulated, or marked with circular rings; and all the other part is black, smooth, and glossy. The tail is near a foot in length, and is covered with hair of the same colour with that on the rest of the body, but considerably longer. The legs are very strong, and covered with short hair. The creature is very nimble, and jumps about upon the rocks like our goat.

Beside the Oriental, there are German, and other bezoars, which are less valuable. The genuine Oriental bezoar is commonly of an oval form, and between the size of a hazle-nut and a walnut: if larger, it is more valuable; if smaller, of no value. This stone is externally smooth and glossy, and composed of several shining coats, like an onion, inclosing either a powdery substance, or a nucleus, round which they are formed. The colour most valued is a shining olive or dark-green; but there are some whitish, some grey, and some of a dull yellow. Purchasers should be careful in choosing this drug. The real bezoar has little smell, and no taste. It should be as large as possible: the very small pieces should be intirely rejected, as they are most commonly increased in quantity with factitious substances resembling them.

When a red-hot needle, on entering the bezoar, occasions it to fry
and

and shrivel, it is not genuine: if it only throw off a small scale or crust, without entering, it is good.

If, on rubbing it over paper, previously smeared with chalk or quick lime, it leave a yellow taint on the former, or a green one on the latter, it is a good stone.

If the bezoar, after soaking five or six hours in luke-warm water, remain unchanged, in weight, colour, or consistence, it is genuine. Nor should it appear sensibly acted upon by rectified spirit any more than by water.

The powder, after agitation with water or spirit, subsides uniformly and totally, leaving no greenish matter dissolved in the liquors, as those powders do in which the bezoar-tincture has been imitated by certain vegetable matters.

China-Root is produced in China and in the East and West Indies; but the qualities of the produce of the two former are the best. It is an oblong, thick, jointed root, full of irregular knobs, of a reddish brown colour on the outside, and of a pale red within. The Oriental root is considerably paler and harder than the West Indian.—When cut, it exhibits a close, smooth, glossy, surface. It should be chosen large, sound, heavy, fresh, of a pale red colour internally. While new, it will snap short, and look glittering within: if old, the dust flies from it when broken, and it is light and reeky. It is of no value if the worm be in it.

Gamboge. This is the concrete resinous juice of certain trees growing in Cambodia and other parts of the East Indies. It is in cakes or rolls, externally of a brownish yellow, internally of a deep red or orange-colour. It has no smell, and when first chewed, makes but little impression on the taste; but, after remaining some time in the mouth, discovers a considerable acrimony. If this drug
be

be wetted and rubbed upon the nail, it gives a curious bright lemon-colour; by which, and its appearing smooth and clear from impurities, it is known to be good. The small cakes or rolls are most profitable in London.

Ginger is plentifully produced in the East and West Indies. This root spreads itself near the surface of the earth; and, when arrived at maturity, it is dug up and dried, either in the sun or an oven.

Ginger should be chosen new, dry, well-fed, not easy to break, of a light brownish green-colour, resinous within, and of a hot pungent taste.

Ginger, green or preserved, will retain its flavour several years.—The East and West Indies furnish this commodity: and the West Indian kind is here preferred. The best is in small and somewhat transparent lumps, of a pale yellow colour: the inferior sort is more opaque and browner, being fibrous or stringy when broken.

Tamarind. The fruit of this tree is a pod, somewhat resembling a bean-pod, including several hard seeds, together with a dark-coloured vivid pulp.—This pulp is connected with the seeds by numerous tough strings or fibres; and these are freed from the outer shell. The Oriental sort is drier, darker-coloured, and has more pulp than the West-Indian. The former is sometimes preserved without addition of sugar, of which the latter has always an admixture. Red, brown, and black, are brought from the East-Indies and China: of these the black is the best; the more pulp the better.

Turmeric, a small root of an oblong figure, usually met with in pieces, from half an inch to an inch or two in length, and about an inch in circumference. Its surface is uneven and knotty, and the longer pieces are seldom strait. It is not easily cut through with a knife; heavy, hard to break, and of a glossy smooth surface when it

is cut through. Its external colour is a whitish pale gray, with a faint yellowish tinge: internally, when broken, it is a fine, bright, pale, unmixed yellow, when the root is fresh: by keeping, it becomes reddish, and at length is much like saffron in the cake; it speedily gives a fine yellow tinge to water, and the same colour to the spittle when chewed. It is easily powdered in the mortar, and, according to its age, makes either a yellow, an orange-coloured, or a reddish, powder. It has a kind of aromatic ginger-like smell, and a warm, bitterish, disagreeable taste. The curcuma roots should be fresh, thick, heavy, and hard to be broken. This root is produced in China and Bengal: the former sort is most valuable. Casks are preferable to bags for packing it, the least damp rendering it useless.

Elephants Teeth are valuable in proportion to their size and soundness. The strait white teeth, without flaws, and not very hollow in the stump, but solid and thick, are the best.

The best weigh 50lb. (or upwards) each.

The next — 40lb. (or upwards) each.

The third — 30lb. (or upwards) each.

The fourth — 20lb. (or upwards) each.

The smaller are of little value.

Grains of Paradise, called, by some, Greater Cardamums, are angular, rusty-coloured seeds, smaller than pepper, and apparently resembling cardamom-seeds, from which, however, they differ in their properties. These seeds possess somewhat of the cardamom flavour, joined with the heat and pungency of pepper, while fresh and round.

Ebony is plentifully produced in Cochin-China and the island of Ceylon. If it be sound, black, heavy, and without white wood, it will be sufficiently useful for most purposes.

Canes, called Dragon's-Blood, must be found, taper, supple, and clouded, the more so the better; the middle joint must be thirty-six inches long, and the top and bottom joints eight or ten more.

Canes, called Japans, or Wangees, must be pliable, tough, round, and taper, the knots being at regular distances.

Canes, called Rattans, must be found, well glazed, full four yards long, not smaller than the little finger, and of a pale yellow colour.

Canes, called Walking Canes, to be of any value, must be found, heavy, tapering, twenty-eight inches long in the joint at least, and the more clouded the better. *Canes* thirty-six inches long in the joint and upwards, are most in demand.

Cayelac, a sweet-scented wood, which grows in the kingdom of Siam. The Siamese and Chinese burn it in their temples. It is a part of the commodities exported from Siam to China.

Tutenague is formed into blocks of about twenty pounds each. There is no difficulty in buying it, only to see that it be free from dross.

Lacquered-ware and china must be purchased at discretion, fashion varying their value.

Coral is in great demand in China: the best of which is brought from Europe, particularly from Italy and Turkey.

Candied nutmegs, mixed sweetmeats, candied oranges, hams, preserves, and pickles, are to be procured cheap in China; as also rice, and grain of all sorts, which are sold by weight, and not by measure, as in other countries.

Bird of Paradise. This bird is a native of New Guinea and the Islands in its vicinity. These islands abound with many species of birds equally as elegant for shape, and as brilliant in the lustre of their colours.

The bodies of the dead birds of Paradise serve for ornament to their chiefs, who wear them fastened to their bonnets by way of aigrette: but in preparing the skins they cut off the legs. The Dutch, who trade on these coasts, buy them in this condition, and carry them to China, Persia, Surat, and other places in India; where they sell them excessively dear to the rich inhabitants, who wear them as aigrettes in their turbans or helmets, and adorn their horses with them. Hence these birds are supposed to have no feet; that they sleep suspended by the two long hair-like feathers which adorn their tail; and lastly, that they hatch their eggs by carrying them under their wing. The Dutch have given a credit to these idle tales, which by throwing an air of the marvellous over the object of commerce, was likely to set it off and enhance its value.

Sago. The Sago-trees, in the Molucca islands, grow wild in abundance, and are thirty feet high, and six in circumference: the woody bark is about one inch thick, and covers a multitude of long fibres, which, intermixing with one another, form a cover to a mass of gummy meal. When the tree is ripe, and ready to give its farinaceous substance, the extremities of its palms are covered with a white dust, which transpires through the pores of the leaves.—Then the Malay cuts it down by the root, divides it into several logs, and splits them into quarters; takes out the mass of meal that is on the inside, which adheres to the enveloping fibres; dilutes it in common water, then strains it through fine linen, in order to separate it from the fibres: when this part has lost some of its moisture, by evaporation, it is thrown into earthen moulds of different shapes, and left to harden and dry; is a wholesome food, and will keep good many years, for common use: they only dilute it with water, but sometimes they boil it. They have also the art to separate the flour of this meal into small grains: thus prepared, it is thought proper for old and sick persons. It is an excellent remedy for those affected with

with weak lungs. When it is boiled in fair water or broth it forms a white jelly, very agreeable to the taste. The Dutch call it the Bread-tree. It has been found on Madagascar, where it is called Raphia.

The Sago (or libby-tree) has, like the cocoa nut-tree, no distinct bark that peels off, and may be defined a long tube of hard wood, about two inches thick, containing a pulp or pith, mixed with many longitudinal fibres. The tree being felled, it is cut into lengths of about five or six foot; a part of the hard wood is then sliced off, and the workman, coming to the pith, cuts across (generally with an adze made of hard wood called an ubong) the longitudinal fibres and the pith together, leaving a part at each end uncut; so that, when it is excavated, there remains a trough, into which the pulp is again put, mixed with water, and beat with a piece of wood; then the fibres, separated from the pulp, float a top, and the flour subsides. After being cleared in this manner by several waters, the pulp is put into cylindrical baskets made of the leaves of the tree, and it is to be kept some time: these baskets are generally sunk in fresh water to keep it moist.

One tree will produce from two to four hundred weight of flour. I have often found large pieces of the sago-tree on the sea-shore, drifts from other countries. The sago, thus steeped in the salt-water, had always a sour disagreeable smell. The leaf of the sago-tree makes the best covering for houses of all the palm kind; it will last seven years. Coverings of the nipa, or common attop, such as they use on the south-west coast of Sumatra, will not last half the time. When sago-trees are cut down, fresh ones sprout up from the roots.

We seldom, or never, see sago in Europe but in a granulated state. To bring it into this state from the flour, it must be first moistened, and passed through a sieve into an iron pot (very shallow) held over a fire, which enables it to assume a globular form. Thus,
all

all our grained sago is half baked, and will keep long. The pulp or powder, of which this is made, will also keep long, if preserved from the air; but if exposed it presently turns sour. The Papua oven, for this flour, is made of earthen-ware; it is generally nine inches square, and about four deep: it is divided into two equal parts, by a partition parallel to its side; each of these parts are subdivided into eight or nine, about an inch broad: so the whole contains two rows of cells, about eight or nine in a row. When the cell is broad, the sago-cake is not likely to be well baked; I think the best sized are such as would contain an ordinary octavo volume upon its edge: when they are of such a size, the cakes will be properly baked, in the following manner: The oven is supposed to have at its bottom a round handle, by which the baker turns the cells downward upon the fire: when sufficiently heated, it is turned with the mouths of the cells up; and it then rests upon the handle (which is now become the bottom) as on a stand.

Whilst the oven is heating, the baker is supposed to have prepared his flour, by breaking the lumps small; moistening it with water, if too dry, and passing it once or twice through a sieve; at the same time rejecting any parts that look black, or smell sour: this done, he fills the cells with the flour, lays a bit of clean leaf over, and with his finger presses the flour down into the cell; then covers all up with leaves, and puts a stone or piece of wood at top to keep in the heat, and in about ten or twelve minutes the cakes will be sufficiently baked, according to their thickness; and bread thus baked will keep, I am told, several years. I have kept it twelve months, nor did vermin affect it in that time. It may not be amiss to mix a little salt with the flour.

The sago-bread, fresh from the oven, eats just like hot rolls. I grew very fond of it. If the baker hits his time the cakes will be nicely browned on each side. If the heat be too great, the corners of the cakes will melt into a jelly, which, when kept, becomes hard, horny,

horny, and flinty; and if cut fresh proves insipid: when properly baked, it is in a kind of middle state, between raw and jellied.

A fago-cake, when hard, requires to be soaked in water before it be eaten, it then softens and swells into a curd, like biscuit soaked; but if eat without soaking (unless fresh from the oven) it feels disagreeable, like sand in the mouth. No wonder then if agriculture be neglected in a country, where the labour of five men, in felling fago-trees, beating the flour, and instantly baking the bread, will maintain a hundred!

The fago-bread intended for immediate use need not be kept so long in the oven as what is intended for sea use, which may be said to resemble biscuit.

I have often reflected how well Dampier, Funnel, Roggewein, and many other circumnavigators might have fared, when passing this way in distress for provisions, had they known where to find the groves of fago-trees, with which most islands here in low latitudes abound; Morty, near Gelolo, especially. Fresh bread, made of fago-flour, and the kima (a large shell-fish like a cockle,) would have been no bad support among the Moluccas. The kima is found in abundance, of all sizes, at low water, during spring tides, on the reefs of coral rocks. From experience, I prefer the fresh baked fago-bread to our wheaten-bread; and the kima stewed, is as good as most fish, nor does one tire of it; but it must be stewed some time, or it will not be tender. Its roe will sometimes weigh six pounds; the fish altogether, when cleared of the shell, weighing twenty or thirty pounds.

Neither is the kima cockle the worse for being large. Sometimes the kima in the shell may endanger staving a small canoe getting it in. The best way is to put a stick under water into the gaping shell, which then closes, and holds fast: then drag, or lift it towards the shore, and stab it with a cutlass: it dies immediately, and can be taken out. Small kimas, about the size of a man's head, are very good:

good: they will keep long alive if wetted frequently with salt-water.

Large ships, navigating those seas, must naturally dread the reefs of rocks, which might produce so much good to them, if in distress for provisions: but to profit from them, they must hit the time of low water spring-tides. The vast fleets of Mangaio boats that set out from Soloo and Mindano, to cruise among the Philippine Islands against the Spaniards, trust to the reefs of rocks, which may be said to surround all those islands, producing them fish for their subsistence, as they only lay in rice or sago-bread.

The account given of the sago-tree shows how easily the inhabitants of these countries may find subsistence. They have also, all over the Moluccas, and on New Guinea, the rima, or bread-fruit, which is the chief food of the inhabitants of Otaheite, in the South Sea; where (according to Doctor Forster's curious computation) ten or twelve persons live eight months upon the produce of an acre planted with this tree. I shall therefore endeavour to show how many persons may live on an acre planted with sago-trees, which growing more upright, and the roots not spreading so much, will consequently take up much less room than the rima-tree.

I shall allow a sago-tree to take up the room of 10 feet squared, or 100 square feet. Now, the contents of an acre are 43,500 square feet, which being divided by 100, allows 435 trees to grow within that space: but to give ample room, I shall say 300 trees only. And supposing that, one with another, they give 300 weight of flour: then three trees, or 900 weight, may maintain one man for a year; and an acre to be cut down would maintain 100 men for the same time. Now, as sago-trees are 7 years a growing, I divide 100 by 7, which will then allow 14 men to be maintained for a year, on the produce of one-seventh part of an acre: immediately, or on the produce of a whole acre progressively cut, one-seventh part at a time, allowing fresh trees to sprout up.

Before

Before quitting China, I beg leave to inform the reader, that the people of that country are extremely good at making all kinds of wearing apparel. Gentlemen, therefore, proceeding to China, need not overstock themselves with cloaths, as they will be able to procure many in that way very reasonable.

Tailors Charges, at Canton;—as regulated by Mr. PEGUE, Chief Super-cargo.

				Tale	Mace	Can.	Cash
For making a coat	-	-	-	1	4	0	0
Pockets, buckram, and lining	-			0	5	5	0
18 Buttons, at 8 cash each	-	-		0	1	4	4
						2	0 9 4
For making a waistcoat	-	-		0	4	5	0
Pockets and lining	-	-		0	2	0	0
Buckram	-	-	-	0	0	2	0
Taffety to line the skirts	-			0	4	3	0
18 Buttons, at 4 cash each	-			0	0	7	2
						1	1 7 2
For making a pair of breeches	-			0	3	0	0
Pockets, lining, (waistbands) and buttons				0	1	2	0
						0	4 2 0
For making a plain shirt	-	-		0	4	7	0
Ruffled ditto	-	-	-	0	2	2	0
Cap	-	-	-	0	0	2	0
Stock	-	-	-	0	0	3	0
Short drawers	-	-	-	0	0	6	0
Hemming a handkerchief	-			0	0	2	0

Shoes are made in China, and also very good stockings.

A P L A N
OF A
V O Y A G E,
FROM
CALCUTTA TO THE MALAY-COAST AND CHINA.

THE first thing necessary for this voyage is to procure a ship about four hundred tons, pierced for eighteen or twenty guns, carrying them under cover. She should have the good qualities of sailing fast, and carrying a large cargo, as well of dead weight as of gruff goods: under which head, I reckon pepper, rattans, &c. &c. which require much room for stowage.

The ship, in addition to the necessary ammunition for her guns, musquets, and pistols, should have a box containing fifty hand grenades in each top; together with an arm chest, containing musquets and ball cartridge: that if boarded by the Malays, or pirate Lanoons, and driven from the deck, your crew may be able, from the tops, to drive them off with their grenades and musquets: the officers and people at the batteries below will prevent the enemy from getting possession of the inside of the ship.

Having

Having a ship every way suited to the purpose, the commander, being generally super-cargo, or executive agent, upon those voyages, should have two rooms or apartments built upon the orlop-deck, which should be so contrived, that they could at all times be kept well aired and ventilated, by scuttles in the sides of the ship: and windsails, for carrying his opium, which should not be kept in the hold, being at all times too hot; but more particularly so after any pepper is taken on board, on the coast. These rooms ought to be dunnaged, with battons of two and a half inches high, and scuppers in the wings, to let the water (if any should by accident come through the scuttles, or leak into the opium rooms) run off the deck before it could accumulate so as to damage the opium. These battons should be nailed athwart the deck, or at right angles with the keel, so as to admit the water to pass from side to side without interruption as the ship rolls. The least opposition it meets with, to check the momentum given it by the motion of the ship, will make it splash up, wet the opium chests, and if it does not damage the opium, will inevitably rot the skins in which the chests are enveloped, to the great detriment of the sale of that article.

We shall now suppose the ship is ready, armed, stored, manned, and victualled for twelve months. The commander ought to be well supplied with boats, viz. a good fast-sailing long-boat, as large as the ship could possibly stow; a second boat, or pinnace, to stow in her, also as large as possible; a third boat to turn bottom up over the former two; a yawl, to hang upon one quarter; a good paddling canoe, for dispatch upon the other quarter; and a gig, or light fast rowing boat, to hang over the stern.

The long-boat should carry two (at least) or four chambered swivels, of three pound calibre; the second boat two; and third boat one; with grape, canister, and langrage shot sufficient for them. Each boat should also be armed with a sufficient number of pikes, cutlasses, pistols, musquets, and bayonets, with an arm-chest to con-

tain them; and a magazine for the necessary ammunition. Thus, with six boats, crews for the three first should be carried, exclusive of the number of men absolutely necessary for working or navigating the ship. This number of men should be taken on board as sepoys, in the following proportion: Suppose the first, or long-boat, carries ten men and a cockswain, which in all boats is generally a tindal; the second boat, eight and a cockswain; the third boat, or cutter, six men and cockswain; making the aggregate twenty-seven men, or one havildaur (or serjeant), two naigs (or corporals), two drummers and a fifer, and twenty sepoys. These people are, in general, good, steady, careful men; and their sense of honour, as soldiers, makes them ever upon the alert; they are consequently, at all times, a check to the treachery of those with whom you deal; and the mischief which in consequence await all men and ships trading to the eastward; as well as trusty men to send in the chops (or boats) which carry your cargo from Whampoa to Canton.

Thus having the ship ready ballasted with rice, a little wheat and gram (a kind of vetch), and in condition to receive her cargo by the middle of December, about which time the Company's first opium sales commence. She may be supposed to take on board five hundred chests of opium, or upwards, with a proportion of piece goods, and from twenty to forty thousand Spanish (head) dollars in specie.

Having a fair wind she will soon be clear of the pilot, and ought, as a first ship, to run for Junkceylon.

If she expects other ships to follow her soon, she ought not to wait to sell her rice; but take such tin and elephants teeth as are ready for her, in barter for opium and piece goods; reserving her dollars. This is the first place she will find her boats useful in causing dispatch.

Having finished here, no delay must be admitted in this active voyage. The next port is Pooloo Pinang; where, if the Company's opium is not arrived, she will sell from fifty to one hundred chests,

at,

at, perhaps, fifteen to thirty per cent. profit, for dollars and tin. If rice or piece goods are in demand, she may sell here; but the time must not be procrastinated: she may sell her wheat and gram, and go on to Salangore.

The business of this place may, or ought to be, done in two days; and from hence go on to Malacca (through the Straits of Cologne).

Here she should sell her rice, wheat, and gram; though selling the wheat is not an object, as it will find a readier sale at Batavia.

At Malacca, if she is the first ship, there is no doubt of selling one hundred chests of opium; the amount sale of which, and the rice, will be paid in dollars: this will be a good supply, with the specie, from Calcutta to proceed through the Straits of Durian to Lingin-river; where the Linginees will have collected some tin, pepper, and rattans, from the month of September until this time.

Opium will bear a better price here than at Junkceylon, Pinang, Salangore, or Malacca; though they will not take more, perhaps, than twenty chests; and the remaining cargo you receive must be paid for in Spanish dollars: they may take a few piece goods; but the sale is uncertain.

From Lingin run over to Palambang, in the Straits of Banca; and while your long-boat goes into the river (for water) send accounts of the ship's arrival to the governor of Palambang; the fishermen will send accounts to the sultan's minister (the Carangue), and others of the natives. In the meantime the ship should run into Mintow-roads, as well for shelter, as to inform the Banca people of your arrival. Whatever tin they have ready, which at this time of the year is in general pretty considerable, they will sell, and deliver it to you immediately, (for they are remarkably quick at business). You must pay them in Spanish dollars, except about ten chests of opium, which is as many, at this early part of the season, as they will venture upon.

As your business will be soon done here, run into Palambang-roads,

roads, to pick up your long-boat; and if the governor means to do any thing, you will, upon the third or fourth day, have accounts: but should he not be prepared to deal with you, you may advance him what cash you have, or he may want, opium, &c. until you return, for you have no time to lose. You will now proceed without loss of time to Batavia.

Immediately upon your arrival at Batavia, wait upon the Shabundar, and deliver him a manifest of your cargo, reserving twenty or thirty chests of opium for the private dealers; for which, if you sell, you will receive Spanish dollars, nutmegs, cloves, mace, pepper, and tin.

Having spoken already of the trade of Batavia*, I will now pursue the voyage, leaving the reader to refer to the trade of that place for further information.

The principal object now in view is to realise dollars. If you cannot sell your opium at Batavia for dollars, you have no alternative but to go on to Banjar Masséen, and thence to Passier. Should you fail of a sale at these places, you must return, and try upon the west side of Borneo, at Succadanna, Pontianna, Mumparva, and Sambafs, where there is no doubt but you will find a sale for the remains of your opium: for which, as well as for the articles necessary for your China cargo, you will be paid in gold.

Having finished at Batavia, Banjar Masséen, Passier, Succadanna, Pontianna, Mumparva, and Sambafs, cross over for Lingin-river again, from thence to Banca and Palambang; and go again (if necessary to sell your gold and procure Spanish dollars) to Batavia; which having done, return to the Straits of Banca, and continue collecting tin and pepper, until the Company's ships pass through the Straits for China, which generally happens in August.

Having met the China ships, who always carry specie (in Spanish dollars,) put out as much of your cargo, as you think convenient, on

* See Page 48, &c.

board of them, for Canton; agreeing with them for the freight, which is usually two per cent. for tin, and four per cent. for pepper; and take, upon the cargo deposited, as a guarantee, as much of their specie, payable at Canton (upon Respondentia), as you think you shall have occasion for to finish your purchases, and fill up your cargo again, preparatory to your going to China. For this loan of Spanish dollars you usually pay six per cent. payable one month after your arrival at Canton.—This is an object of consequence to the commanders of the European ships, who, without trouble, risk, or delay, clear twelve per cent. upon the value of the cargo they receive on board, which is seldom less than one lack (or one hundred thousand Spanish dollars), or twelve thousand Spanish dollars, equal to three thousand pounds sterling, for freight and use of money for three months.

Your business being finished with the European ships, you are to consider whether there is time to run over to Mumparva, Succadanna, or Sambas again: if not, keep about the Straits of Banca; going to Lingin occasionally, until the 10th or 15th; but by no means exceed the 20th of September in the Straits of Banca.

Having finished your season in the Straits, leave them, and run to Tringano, where take on board whatever is ready; tin, pepper, rattans, wax, or beetlenut, and make the best of your way to China.

It being now very late in September, or probably the early part of October, when the south-west monsoon is nearly done in the China seas, it may not be inapplicable to give some advice about securing your passage to China, which cannot be done against the strong currents, which at this season begin to set out of the great Pacific Ocean, through the Straits of Formosa, and to the S.W. down the China Sea.

Leaving Tringano, shape a course for the south-end of Pooloo Condore: and having passed it, steer for Pooloo Sapata, by Mr. Nicholson's Directions: and having seen Pooloo Sapata, keep on that
tack,

tack, (should the wind be against you,) on which you can make most northing, until you are in the latitude of $11^{\circ} 30' N.$; keep then standing to the N.E. as I believe you are to the northward of all the shoals: but if the wind will admit of your making more northing, follow Mr. Nicholson's Directions for making Goat Island, and work up the west coast of Luconia, as far as Cape Bajadore; from whence stretch over for the coast of China, taking care to allow the Pratas a good birth, as they are a dangerous chain of rocks and shoals, and cannot be distinguished any great distance from a ship's deck.

Along the west coast of Luconia, from September to June, there is a current (or rather a counter eddy, from the great current which sets to the S.W. down the China Sea) setting to the northward: and from September until April, upon the same coast, you have land and sea winds; all which assist a ship very much in going to the northward and securing her passage to China; which she can never succeed in making (at this late season) in the middle of the China Sea; except by a great chance, as some ships did in the year 1787, who, upon the change of wind after a heavy tuffoon, steered direct for the Ladroon, and got in; but, had they had twenty-four hours further run, they would either have been obliged to stretch over for the west coast of Luconia, or have gone to winter at Hainan. Instead of steering directly for the Ladroon, had they steered over for Cape Bajadore, they must have been assured of their passage, let the wind change as it may. I therefore recommend the cautious navigator to make the coast of Luconia (if late in the season); and though it may delay his voyage a day or two, it secures him a passage and good landfall without risk or anxiety.

Having cleared the Pratas, and made the coast of China, steer for Pedro Branco, and passing to the southward of it, run for the Great Lema, and pass to the northward of it; then steer for the island of Linting Fora, and if late in the evening, or night is coming on, anchor under the lee of it, and wait for day-light to run into Macao-roads;

roads; weigh at day light, and pass under the Peak of Lantao, between it and Longshitoa, steer over for Macao-town, and anchor in any convenient depth of water, or distance off the entrance to the town you think proper. In all probability you will have pilots applying to you before you are near Linting Fora; if so, I would advise your having one, as the sum you pay for his services is trifling, (ten to twenty Spanish dollars), and you have the use of his boat to go to Macao, which is safer under his management than any of your own boats.

Having now brought you to Macao, follow the former Instructions for going up to Whampoa and conducting your business at Canton.

For your returning cargo to India, your price current, and Calcutta commissions, must be your guide; and you must be diligent to endeavour to get dispatched from China early in November, to get to Calcutta, if possible, before Christmas-day; where your men, lascars, for manning your ship, which requires from one month to six weeks to effect, should be ready impressed, and your eastern cargo prepared for going on board, that if you mean to follow the eastern trade, you may be able to pursue the rout prescribed in the foregoing sheets.

In this Plan I have given a great deal of ground for a ship to run over; it will be therefore necessary to calculate your time, which must be suited to the seasons and change of the monsoons, otherwise you will not be able to perform the engagement, and in consequence, instead of a saving, will make a considerable losing voyage for those interested in the concern: it must therefore appear obvious, to every judicious merchant, that the executive agent, on a voyage of such extent and importance, should not only be a very active persevering man, but a man of knowledge, intimately acquainted with the nature of the winds, currents, and trade of the Malay coast and places to the eastward, as well as adding the abilities of an able navigator to his other qualities.

The ship being completely ready for sea, with all her cargo on board except her opium, (the Company's first sale for which is usually between the 20th of November and 8th of December: suppose we say the sale commences the 15th of December, that we might not be too sanguine in our prospects), and say that article is cleared, and put on board the 17th of December.

This being a favourable season, with fresh N.E. winds and clear weather, (the fogs not coming on in the river Hoogley before the latter end of January or beginning of February,) the ship ought to put her pilot out on the 25th of December, (which is allowing a great while,) and ought to be at Junkceylon on or before the 3d of January: leave that the 8th and be at Pooloo Pinang the 11th, or say the 12th, (which is allowing rather too much time,) as she will meet with dispatch here. She must sail (out of the south channel) the 15th of January, and ought to be at Salangore the 18th; leave that the 20th, and arrive at Malacca the 25th of January. As her own boats will carry her ballast on board (having three constantly employed) from Red Island, and the shore boats (which are to be had in great numbers) will take her rice, wheat, and gram, on shore, she ought to sail the 1st of February; be at Lingin (going through the Straits of Durian, as there is no trade at Rhio since the Dutch took possession of that island and place) the 3d or 4th, and leave it the 7th. She will be at Palambang the 8th or 9th of February, at Mintow the 10th, and back to Palambang-roads the 11th. She will sail for Batavia the 12th, and arrive there the 15th or 16th of February. Her stay at Batavia should not exceed one month, as by this dispatch she will be certainly the first opium ship there, being able to do her business quicker, and with more dispatch, at the several ports she stops at, than the vessels who go down the west coast of Sumatra (who have more places to touch at, less trade, and more detention) and through the Straits of Sunda to Batavia.

We

We supposed, in the Plan, that the opium would not sell at Batavia: and we have in consequence lost a whole month, which brings us to the 16th of March. The ship must now run for Banjar Masséen, where she will arrive the 25th of March, and leave it the 1st of April. She will be at Passier-bar the 7th; allow her to be here until the 20th, and be again (if necessary) at Banjar Masséen the 25th. She will have a shorter passage from Passier to Banjar Masséen, than from Banjar Masséen to Passier, on account of the monsoon changing at the full moon in March: say, she leaves Banjar Masséen the 1st of May; she will be at Sambas, Pointanna, Momparva, and Succadana, until the 10th of June: she will be again at Lingin the 20th of June; at Banca and Palambang the 25th of June. Sail, if she has any gold or opium left on hand, (if she has not, she may keep in the Straits of Banca,) for Batavia on the 5th of July, arrive the 15th, say the 20th, do her business, and sail the 1st of August. She will be in the Straits of Banca the 5th of August, ready to intercept the Company's ships for China; and follow the former part of this Plan. The latest time of continuing in the Straits, collecting tin and pepper, being now arrived, viz. the 20th of September, you leave the Straits of Banca; and on the 24th you will arrive at Tringano. The season being far advanced, and probably other vessels having just failed, there will be little delay in shipping off any cargo that might be ready: you will therefore sail from Tringano the 29th of September, but say the 1st of October. Take the eastern range prescribed, and you will get to Canton by the 25th of October, or at farthest the 1st of November. You should be particularly cautious at this season of the year, in those seas, to have your ship well prepared for bad weather; your boats, booms, &c. &c. well secured and frapped, by the time you get the length of Pooloo Sapata: and be particularly guarded against the prognostic of a tuffoon, by observing if the sun sets red, and tinges the clouds of the same colour; in the western quarter particularly, if this appearance is on the 17th, 18th, 19th, or 20th day

of the moon's age. By being prepared in this manner, in the year 1790, I saved my ship, from suffering any loss; when a very fine Danish East-Indiaman, and the largest I had ever seen at Canton, came in totally dismasted, having lost every stick, bowsprit not excepted; and suffered so much in the gale, that she was condemned at Whampoa as unfit for further service. Many of the Bombay ships suffered in the same gale, particularly the Surat Castle, and Shaw Byramgore.

Upon comparing accounts with the Gustavus's (the Danish East-Indiaman's) reckoning, I could not be more than ten or twelve leagues distance, to the eastward of her.

By dispatch, your ship may leave Whampoa the 20th of November, and arrive at Calcutta, by taking the inside passage to the westward of the Paracels, (as hereafter described), by Christmas-day.—The passage has been made in twenty-five days, including two days delay at Malacca, and three days at Pooloo Pinang. But having taken the longest round, and allowed more than sufficient time for the ship to make her passages; with the precaution to carry the ship from port to port, by taking the advantage of the seasons, and making her carry a fair wind all round the whole track; I think I have made sufficient allowance for her detention at each port to enable her to perform her voyage in the time I have mentioned.

It must be allowed it is an active, busy, as well as a dangerous voyage; and much, or the whole of the success of it, rests upon the knowledge, vigilance, and industry of the executive agent.

DIRECTIONS

FOR ENTERING THE STRAITS OF MALACCA FROM THE CHINA
SEA, THE ANCHORAGE AT POOLOO AURO, AND SAILING
THROUGH THE STRAITS.

THE proper bearings for anchoring at Pooloo Auro, which most ships do who make the island in the morning, are Pooloo Timoan shut in with Pooloo Piffang, bearing N.W. distance nine leagues, Pooloo Tingey (or High Peak Island) W. by S. eight leagues, and the extremes of Pooloo Auro from S.E. half E. to N.W. half N.—The watering place will then bear N. by E. and your distance off shore half a mile.

If you have a fresh breeze, weigh from Pooloo Auro about eleven or twelve o'clock at night, so as to be 10 or 12 leagues from it by daylight. The course, after being clear of the island, is S. by E. to avoid a funken rock, which bears south from the body of the island about seven leagues, until the island bears N. half W. You have generally a current setting from the China seas, and runs about S.S.E. one and a-half or two miles an hour. With these bearings, and 12 leagues from Pooloo Auro, you will (if clear) see Bintang-hill bearing S. by W. about 14 leagues distance; stand on, until Bintang bears S.S.W.; upon which bearings you may steer down with safety. Should you bring Bintang-hill to bear S. by W. half W. or S. by W. you will have overfalls, and irregular soundings, from 17 to 13 and to 7 fathoms. The ship Shaw Ardiseer run down for Bintang-hills, keeping them in one, bearing S. by W., and shoaled among overfalls to seven fathoms; but, by hauling off, deepened to

17 fathoms

17 fathoms immediately; and then hauled round the reef off Point Romania, the rocks off the Point bearing W. by S. She kept that shore on board, not coming under 14 fathoms.

It is frequently foggy or hazy, and you cannot see Bintang-hills. Though you have lost sight of Pooloo Auro, keep between 20 and 26 fathoms, soft ground, until you see the hill; for should you bring Barbacet to bear S.W. by S. or S.W. you will find it difficult to get to the westward, on account of the current. Should you see the low land about Barbacet-hill, you will have under 20 fathoms, and will shoal fast towards the shore; edge to the southward, until you deepen your water again, and have nearly lost sight of the low land, which you will do about six and a-half or seven leagues off, and will then have Bintang-hill bearing S.S.W. You may run until Barbacet-hill bears W. by S.; and if in 20 fathoms, haul up until you shoal your water, for you may then consider yourself on the edge of the bank; and when you have brought Barbacet-hill to the northward of west, you will have 13 or 14 fathoms; and distance from the low land of Bintang nine leagues. You may consider yourself now, to the southward of the bank; and may haul up W.S.W. and W. by S. When you have brought Bintang to bear S. half W. five or six leagues, Pedro Branco may be seen bearing S.W. by W. one-quarter W. distance four or five leagues, your depth of water 19 fathoms, and Barbacet-hill W. one-quarter N. six leagues. When Bintang-hill bears S. in 24 fathoms, Pedro Branco will bear S.W. distance three leagues.

There is a small hill near Bintang-hill; when in one, they bear S. half E. You may pass Pedro Branco in 18 fathoms, and from thence keep mid-channel. If obliged to turn to windward, stand no nearer the south shore than 13 fathoms, and towards the rocks off Romania-point to any distance you please, until you come up to Johore-river. When you come up with the point (of Johore-river), do not come nearer on that side than 15 fathoms, until you have passed

passed two red strands on the west side of the river, for there is a shoal lies out from them. When the rocks off Point Romania bear N. by E. half E. distance five leagues, St. John's island will bear W. by S. half S. You may pass this island at any distance you please. From hence to Barn Island your course is W. by S. In the midway, for six or eight leagues, you will have 14 or 16 fathoms.— If you cannot get through before night anchor upon this bank; for off of it you will have deep water, 40 or 50 fathoms, and even 60 fathoms, with foul ground. There are several small rocks on the south side, just above water, which you will avoid, by keeping mid-channel.

When St. John's Island bears N.E. by E. three leagues, Barn Island will bear N. half W. distance four leagues; then you will perceive several openings; but Barn Island and the True Passage is known by two small rocky islands, with a few trees on them, (at the south end of it,) called The Rabbit and Coney, or the Passage Islands. They appeared before the year 1781 like rabbits squatting: but some trees, which formed like ears, were cut down by the master of a French privateer. Leave these islands on the starboard hand (or north side) of you; and Red Island on the larboard hand (or south side). The Passage Islands (or Rabbit and Coney) are steep to. If running in the night, and cannot keep close to Barn Island in 13 or 14 fathoms, you had better come to an anchor, for fear of being set upon Tree Island. In the mid-way between Barn and Tree Island, you will have 25 fathoms water. If you get so far to the southward as to shoal to 15 fathoms, you will be very near Tree Island, and should haul over for Pooloo Oular (or Snake Island). If Barn Island bears E.N.E. half E. from you, distance off shore two or three leagues, Green Island and the rocks will bear from S.W. by W. half W. to W. by S., distance five miles; and the northern Carrimon will bear W. one-quarter S. six or seven leagues, and you will have 25 fathoms water.

When you come up with the two islands of the Carrimons, (called the Two Brothers,) or when they bear west of you six leagues, you will see Pooloo Coccob N.W. half W.; it is easily known, being a low flat island and always green; towards the N.W. extreme Tanjong Bolus will bear N.W.; the high land of Pooloo Pissang N.W. half W.; Tree Island S.E. half E.; and Barn Island E. by S. distance three or four leagues.

Do not come nearer Pooloo Coccob than 17 fathoms, as that is very near the shore; and before you can go about, you will be in 15 fathoms. You may stand to the S.W. till you are in 12 fathoms, and then go about. After you have passed Pooloo Coccob, you may stand into what water you please upon that side, until you are to the westward of Pooloo Pissang. When passed Pooloo Pissang, if you stand to the westward two or three leagues, you will shoal your water very fast. Come no nearer than 10 or 12 fathoms, then stand in shore until you bring Pooloo Pissang to bear S.E., then you will be in seven fathoms, and have the tree open. If you bring Pooloo Pissang to bear S.E. by E. you will shoal your water very quick, and deepen again for two or three casts. You should not come under eight or nine fathoms while you have sight of Pooloo Pissang, nor bring it to the southward of S.E., for between Formosa and Pooloo Pissang are great overfalls. Pooloo Pissang is steep to, and you will have 10 or 11 fathoms half a cable's length from the shore. Keep Pooloo Pissang E.S.E. and you will lead down in the best part of the channel. From Mount Formosa to the Water Islands the coast is bold to; Mount Formosa bearing E. half S., Mount Morra N. half E. off shore three leagues, in 18 fathoms water, you will see the Water Islands bearing N.W.; they are steep to, and must be all left upon the starboard hand (or to the northward) to go into Malacca-roads; where you may anchor in 8, 7, 6, or 5 fathoms, the church bearing N. by E.

From Malacca-roads to Cape Richardo, the course is N.W. by N.
distance

distance 10 leagues; depth of water from 16 to 24 fathoms from two to seven miles off shore. There is a bank with three or four fathoms water on it, about three or four miles off, and rocks above water about a mile and a-half off. Near the Cape the tides run very strong N.W. and S.E. the soundings are uneven with overfalls from 15 to 30 fathoms. From Cape Richardo the course is N.W. by W. depth of water from 25 to 16 fathoms; and, when to the N.W. of the bank that lies four leagues N.W. from the Cape, and only three miles off shore, steer more northerly for Parcellar-hill, which will, when bearing N.E. by E., be on with a small bank of gravel, having 13 fathoms on it, within and without which is deep water. When you have brought the hill to bear E. one-quarter N., E. half N., or E., edge over to the westward, and keep the bearings on from E. one-quarter N. to E. half S., which I have, by repeated crossing, found the best marks and evenest depths of water in the channel.— This channel is between the North and South Sand Heads, and in it the tides run very strong, especially the ebb, which runs longer W.N. W. than the flood, which sets about E.S.E. When you are half over, if the weather is clear, you will get sight of the Round Arroë, bearing W. one-quarter S. seven or eight leagues; Parcellar-hill will bear E. half S. 9 or 10 leagues; still standing to the westward, you will soon see the Long Arroë, and the small rocks which lie about it.— When this is seen, you are to the westward of all the sands, and in mid-channel. Between the rocks and the sands is deep water, from 30 to 50 fathoms; and close to the rocks 15 and 16 fathoms, ouzey ground. On the sand side you frequently shoal suddenly to 10 fathoms; though I would advise keeping along the western edge of the north sand, for the benefit of anchoring in shoal water. When the tide was against me, I have run upon the west side of the north sand, in seven to five fathoms, very even ground, and never had an overfall of more than a quarter of a fathom at a time. The tides flow East and West at the Arroës, and ebb longest and run much

stronger than the floods, particularly in the N.E. monsoon; for though there is no regular monsoon in the Straits of Malacca, the quantity of water thrown into them from the China Sea in the N.E., and from the Indian Ocean and Bay of Bengal in the S.W. monsoon, must affect the tides greatly in the different seasons; consequently the tides are more regular in the S.W. monsoon. (Times are divided in India by the N.E. and S.W. or dry and wet monsoons.) Being close up with the Arroes, and clear of the sands, steer N. by W. half W., or N. by W. three-quarters W. for Pooloo Jarra, which bears from the Arroes N. 18° W. distance 25 leagues, which island you may pass on either side, it being deep water close to. I would recommend keeping to the eastward of it, as you will be less liable to calms along the Malay shore than in the middle of the Straits, or on the coast of Sumatra, where you are also exposed to violent squalls, and perpetual thunder, lightning, and rain.

From Pooloo Jarra to Pooloo Perah, the course is N.W. by N. distance 42 leagues, the depth of water, 40, 30, and 20 fathoms; but do not go near Pooloo Perah, but keep to the eastward, (it lies W. N.W. half N. or N.W. by W. half W. distance from Pooloo Pinang 20 leagues,) as you will be less liable to calms, and steer for the Pooloo Laddas; and being clear of them, shape your course for your destined port.

The former tracks that were used by ships passing through the Straits of Malacca, were along the Sumatra shore; but experience proves to us that it is not only the most dangerous, on account of lightning and squalls, but also most subject to delay, from calms and currents. Along the Malay shore you have regular tides, few calms, scarce any squalls, and none very severe, with regular land and sea breezes; all which advantages are more than sufficient, I imagine, to induce every person, in charge of ships, to take the track along the Malay shore. For further information I give the following

DIRECTIONS

FROM THE NICOBARS THROUGH THE STRAITS OF MALACCA.

THE south end of the Nicobars lie in latitude $6^{\circ} 48' N.$; from whence steer E. by N. for Pooloo Boutan; the south end of which lies in latitude $6^{\circ} 30' N.$; from thence steer to go between Pooloo Perah, lying in latitude $5^{\circ} 30' N.$ and the south end of Pinang lying in $5^{\circ} 18' N.$ Pooloo Boutan is a large high round island, with several small ones near it. The Laddas are high rugged islands, running in ridges from the mountains to the sea, with beautiful vallies between them. Pooloo Perah is a barren rock, as high as a very large ship's hull, and may be seen six or seven leagues. On the north side is a white patch, like a boat's sail. From between Pooloo Perah and Pooloo Pinang, (which is a high island covered with trees,) to the very summit, steer S.E. by E. half E. for Pooloo Jarra, in latitude $4^{\circ} N.$ the distance is about 42 leagues. From Pooloo Jarra steer S. by E. three-quarters E. for the Long Arroce, lying in latitude $2^{\circ} 20' N.$ the distance is about 25 leagues. Between the Arroes and Parcellar-hill is the channel (to cross over): between the north and south sand-heads the breadth of the channel is about four leagues in the widest part. The Arroes bearing S.W. you will shoal gradually to the southward, and towards the rocks to 16 fathoms; I have been as close as seven fathoms, ouzey ground; but this is closer than can answer any purpose, except to avoid, or intimidate an enemy less acquainted with the navigation of these Straits. Those rocks lie about a league to the N.E. of the Long Arroce.

Standing over to the eastward you will deepen to 20, 30, 40, and 50 fathoms; you will again shoal regularly to 30 fathoms, and then

have overfalls upon the west edge of the north sand; sometimes 20, 25, 15, and, perhaps, 10 or 12 fathoms: it will again deepen to 15 fathoms, with overfalls to 22 and 25 fathoms. Mr. Nicholson's Directions are so very clear, that I need not say any more than what has been already observed in crossing this channel. The flood-tides set S.E. by S., and ebb N.W. by N. between the sands and the Malay-shore.

The channel between Parcelar-hill and the sands is not above four leagues broad, the soundings irregular, from 15 to 30 fathoms.—Parcelar-hill bearing N.E. by E. and two leagues off shore, I had soundings on a small gravel bank, 13 fathoms only, and deep water all round it.

From Parcelar-hill to Cape Richardo the course is S.E. half S. distance four leagues; but the coast and the edge of the south sand lie S E. half E. or S.E. by E.

About N.W. from Cape Richardo lies a shoal, upon which a large Portuguese ship struck in the year 1790, but by keeping Cape Richardo S.E. by E. half E. and Parcelar-hill N.W. half W. you will go to the southward of it, in 12, 15, or 20 fathoms. Cape Richardo lies in latitude $2^{\circ} 17' N.$; a moderately high bluff, not unlike Mount Dilly (on the Malabar coast), though not near so high, with a small rock (or island) near it, and projecting its bold head into the channel, so as to form a bay on each side of it. Being about a league off the Cape, (this being the narrowest part of the Straits to the northward of Malacca,) you may see the low land of Sumatra from the deck. The tide flows off Cape Richardo nine hours full and change, and rises about 12 feet perpendicular; the soundings very uneven, having overfalls from 17 to 30 fathoms.

The course from Cape Richardo to Malacca-roads is S.E. by S. but attention must be paid to the tide, as it throws very much off shore; the depth of water 16 to 24 fathoms. A S.E. by E. course
(well

(well steered), distance 10 leagues, will carry you into nine fathoms in Malacca-roads.

The outer Water Island and Cape Richardo bear N.W. three-quarters W. and S.E. three-quarters E. of each other, distance 12 leagues.

Being bound to the southward from Malacca, you must go to the westward of all the Water Islands. One mile from the outward one you will have 20 fathoms water. From hence steer S.E. or S.E. by S.; or if obliged to work to windward, you may stand toward Sumatra to 15 fathoms, and in shore again to 20 fathoms. You will have some casts of 30, 35, or 38 fathoms mid-channel.

I have already, in my former Directions, referred to Mr. Nicholson's Instructions for sailing through these Straits, and have always found them very safe; and upon which you may borrow, if you are sure of your ship, in a working wind.

DIRECTIONS

FROM NARCONDAM TO RANGOON-BAR.

FROM Narcondam, make your course good about N.E. by N. till you get in 12 fathoms water; then steer N.N.E. and N. in for the land; but let the tides be guarded against, and the foundings your guide.

The tides to the westward of Barague-point run W.N.W. and E.S.E. and your water will shoal very quick (should you be to the westward of the Point in 20 fathoms, sand and mud) into eight and a-half,

a-half, seven, and six and a-half fathoms, hard sand; but in the proper track you will have sand and mud only.

China Buckeer is a high grove of trees very conspicuous, there being no such other, in appearance, on the whole coast: it represents a long low barn, at the distance of about two leagues and a-half, bearing N. by E. which is the best land-fall you can make.

After bringing it to bear W. by S. or W.S.W. you will see the Elephant-grove, which forms the west side of Rangoon-river; on the east side are several palmira trees. Bring the Elephant to bear N. by W. or N.N.W. and you will have, at high water neap tides, six fathoms and a-half: with these bearings and depth of water, come to an anchor, and send your boat to Rangoon for a pilot.

The soundings to the eastward of the Bar are stiff mud; the tide sets S.S.W. and N.N.E.: when you find this to be the case, do not come under 12 fathoms; but get to the westward as fast as possible on the ebb-tide; and be guided by the tides and soundings till you alter the soundings to quite soft mud, and the tides set N.E. and S.W.; then you may safely steer in for the land, where your soundings will shoal very gradually, until you are in six and a-half or seven fathoms water, and can see the land from the mast-head; steer then into about five fathoms and a-half, and do not come under; but this should depend on the ship's draft of water, as no hard soundings are found until you have less than four or three fathoms water, which is much nearer than you have any occasion to come, as in five fathoms you distinguish every object with your glass. The latitude of Rangoon-bar is $16^{\circ} 28' N$.

FURTHER DIRECTIONS

FOR PEGUE—WITHOUT A PILOT.

IF your observations for latitude are not to be depended upon, the best way is to make the island of Norcondam, and run from it, so as to make $2^{\circ} 10'$ easting: by the time you are in $15^{\circ} 20' N.$, then if you are under 12 fathoms, you may be certain you are well to the westward of the Bar: run to the northward until you shoal to six fathoms (low water), and if you can then ascertain your latitude within five miles, and are near $16^{\circ} 20' N.$ you are still well to the westward of the Bar, and may steer along shore N.E. or N.E. by N.; and if on this last course you do not shoal your water, you are near China Buckeer, and will see it bearing N. or N. by W. of you; it is very conspicuous, being a long thick grove of trees, appearing like an island, and forming two rivers. Running along the same course, in six fathoms (low water) you will soon see the western grove, called The Elephant, which lies on the west side of the river: and on the east side is a long grove of palmira-trees; but the best mark for knowing the river is the course above-mentioned, and your soundings; for when you deepen on a N.E. by N. course, a fathom or two (all at once), you are abreast of the Bar, and may haul up immediately, in the swash of the river, paying attention to the tides, as the flood-tides set very rapidly to the eastward until it is half done. The best channel is, to bring the two points that appear to form the river, about a ship's length open, and steer right up with this mark on, or steer between five and seven fathoms water on the western side: for on the east side there is 10, 12, and 14 fathoms close
along-

along-side the middle ground. As soon as you are abreast of the western grove, keep the western shore aboard. The channel is wide and free from danger all the way to the upper Chokey. The people who keep guard there (chokey wallahs) will inform you where it is. Take great care the tide does not horse you to the eastward of the channel in going over the Bar; and keep the lead going briskly, as the track recommended is close to the edge of the western sand.

FURTHER DIRECTIONS

BY CAPT. GREAVES.

IN the N.E. monsoon, coming from Bengal, it is proper to make Cape Negrais; from whence steer for Diamond Island, and to round the Alguada Rocks; which, when you have done, steer to the S.E. to fall in with Barague-point: and between the months of October and February keep, without fear, in seven fathoms upon the sands in a large ship, and in five fathoms in a small one; but no nearer, as you will approach the breakers. My reason for borrowing so close upon the sand is, that you have no flood at this season; but, from the rivers, a continual current setting to the W.S.W. and round to the N.W. But, between February and July, when you are round Barague-point, you will find the flood setting N.E. by N. and the ebb S.W. by S. In falling in with Barague-point you should not have any dependance upon your dead reckoning, as that may mislead you, where the currents run so strong; but keep your lead constantly going, and when you deepen on the eastern course and find a mixture of shells with your soundings, you will have the river Dalla open, and will be in the latitude $15^{\circ} 40' N.$ or, perhaps, a
mile

mile or two more, or less, in 10 or 12 fathoms. From this situation I shall shape no course, as the winds are generally very variable, and far easterly; but you may stand on boldly, and make the land in latitude $16^{\circ} 10' N.$; you will then see China Buckeer, and will know it by a clump of trees, making like an old barn. There is a mud flat which lies off here, on which you will have three and three-quarters or four fathoms; yet, without fear, stand on to the northward, but take care not to deepen your water to more than seven fathoms, at which depth you will have a sandy bottom, and will see The Elephant (or western grove), bearing N. by W.; keep well in to the westward in five or six fathoms, until you see the eastern grove, the Grove of Palmiras, which will bear N.N.E.; the Elephant N.W. by N. or N.W. northerly, are the best bearings to anchor: and from thence send your boat in for a pilot, to take you over the Bar, and from thence to Rangoon.

FURTHER DIRECTIONS

FOR PEGUE BAR.

NEAR the Eastern Grove, at the entrance of Rangoon-river, (or river Serian,) there appears a forked tree; and when the Elephant bears N.W. by W. half W. the forked tree N. by E. then you have the channel open; with these bearings on, you will see Ental-point, about a sail's breadth open with the western grove (or Elephant). These are the leading marks that the pilots use for keeping the channel, and is the best track over the Bar. Your depth of water will be five and a-half, four and a-half, to four fathoms, observing to borrow on the western side, which is not dangerous, though you should un-

fortunately take the ground, which will never happen, except you shut in Ental-point. The best time of tide to cross the Bar is at half-flood, when you have the *true* set. If close to the foot of the Bar, I would not recommend weighing before half-flood, as you would be liable to be set upon the middle ground, which is dangerous; to avoid which, observe, if Ental-point opens too fast with the Elephant (or western grove), you had better anchor until you find the tide set true.

Another caution to be observed to avoid this shoal.—As you approach it you will deepen your water, with irregular soundings, from five and six to nine fathoms, and the next cast aground. This accident I have (says the writer) met with frequently, in a six-oared cutter. The tide of flood sets very strong over the middle ground. Should you get aground on this shoal, you need not be under any apprehension of *falling* off, although so steep, as I have never known any vessel to do so. The Betsey (Captain Lawrie) was aground on this shoal (in March 1788), though he had a pilot on board; also the ship Ganjaver, (Captain Jameson); but got off again by their anchors.

FURTHER DIRECTIONS

FROM NORCONDAM TO RANGOON.

FROM Norcondam, steer N.E. by N. until you get into 12 fathoms water; then steer N.N.E. and N. for the land, being governed solely by your soundings.

The tides to the westward of Barague-point run W.S.W. and E.N.E. nearly, and you will shoal your water very quick. Should
you

you be to the westward of the point, from 20 fathoms, sand and mud, stand into eight, seven, and six fathoms, hard sand; but in the proper channel you will have all soft mud.

China Buckeer is a high grove of trees, and cannot be mistaken, there being no other like it in appearance on the coast; it resembles a long low barn. At the distance of two leagues and a-half you will see this grove bearing N. by E. which is the best landfall you can make. When you bring it to bear W. by S. or W.S.W. you will see the Elephant (or western grove), which is on the west side of Rangoon-river: and upon the east side you will see several high palmira-trees, which are called the Eastern Grove. Bring the Elephant to bear N. by W. or N.N.W. and you will have at high water neap tides six fathoms and a-half: come to an anchor, and send your boat and an officer to Rangoon for a pilot.

The soundings to the eastward of the Bar are stiff mud, and the tide sets N.N.E. and S.S.W. nearly. When you find by these marks you are to the eastward, do not come under 12 fathoms, but haul out to the westward as fast as possible (upon the ebb), and be guided by the tides and soundings until you get soft mud, and find the tides set N.E. and S.W.; then you may safely steer in for the land, where your soundings will shoal gradually to seven and six and a-half fathoms. When you see the land from the mast-head, steer into five and a-half fathoms, and do not come under; but this will depend upon your ship's draft of water, as no hard soundings are experienced until you have passed four or three fathoms, which is much nearer than you can have occasion to go, as in five fathoms you will distinguish every object with your glass. The latitude of Rangoon-bar is $16^{\circ} 28' N.$

Capt. Burgoyne observes, That in the latitude $14^{\circ} 30' N.$ you will get soundings 42 fathoms, which is the meridian of Barague-point; and from thence steer to the northward, to get into 14 or 15 fa-

thoms, and keep these soundings, steering E.N.E. making allowance for the set of the tides. After you have carried these soundings some time, you will deepen quickly two or three fathoms; then you are clear of Barague-point, and may stand in to the northward, until you shoal to six, or five and a-half fathoms; you will then see the land, and be cautious to keep soft soundings, clear of the least sand or ouzé. Should you find sand or ouze, haul out as fast as possible, as the channel is fine soft mud. The tides to the eastward of the Bar sets N. by W. and N., and S. by E. and S.; and high water on the Bar, on full and change days, is at three o'clock.

Between Barague and Dalla you have 27 fathoms, green mud. To the westward of Barague you have 30 fathoms, black sand, mud, and gravel mixed.

Should you come in with the land at night, do not come under eight fathoms, but anchor until day-light. You should not come nearer the land than five fathoms, for, between Dalla and China Buckeer, you will see the land very plain from this depth of water; but to the westward of Barague you will not see the land until you are close in with it. Should it be dark or squally, I would not advise your running on the flood-tide, but on the ebb, when you can haul off to advantage, if occasion required.

China Buckeer makes like a quoin, coming from the westward, with a bluff, or perpendicular, to the eastward; but should you be making the land in the meridian of China Buckeer, you will first see it from the mast-head like a small island: it will keep this appearance until you raise the low land of the coast. Just at this time you will pass two or three veins of different coloured water, which has a very alarming appearance, but must be no bar to your northerly course, until you are in five, or five and a-half fathoms, when you may steer along shore N.E. or N.E. by E. just as the tides affect you, which are very rapid, and rise and fall 15 feet perpendicular,
and

and at certain times of the year 18 feet; be therefore careful to allow for the fall of water when you anchor, or you may ground before the tide is done.

Captain Swain says, Should you leave the coast of Pedir, for Pegue, in August or September, he would advise your making Norcondam; and run from thence, so as to make $2^{\circ} 10'$ E. meridian distance, by the time you are in 10 fathoms water; then steer N. and you will soon see China Buckeer appearing like an island in a river's mouth; but it is not discernible until you are in six fathoms. If you are to the westward of this depth, you will not see the land. In this depth (six fathoms) steer N.E. and N.E. by N. and you will shoal to five and a-half fathoms; and when upon these courses you deepen your water suddenly to six and a-half, or seven fathoms, and do not shoal again on a N.E. course, you are at the foot of the Bar; and, if it is day-light, you will see the western grove, (which is a chump of trees) bearing N.N.W.; the eastern grove (of Palmira-trees), at the same time, will bear N. by E. or N.N.E. Between these two groves is the river's mouth; and the best place to lie, (if you have rough weather), is to keep the two points, which apparently form the river's mouth, about a sail's breadth open, and you may run in until the western grove bears W.N.W.: here come too (in the river) in seven, eight, or nine fathoms, and wait for a pilot. Should you find yourself, according to the foregoing remarks, near the Bar in the night, anchor in six or seven fathoms, muddy ground.

On my leaving Rangoon, I observed China Buckeer, at the distance of four or five leagues, bearing W. by N. and was then in six and a-half fathoms water, first quarter flood; and it then appeared (as Captain Swain remarks) like a small island, and making at that distance like a quoin; and little of the other part of the coast was in sight.—This is a very good mark to be observed coming from the S.E. ward.

DIRECTIONS

FOR WORKING UP THE COAST OF PEGUE IN THE SOUTH-WEST
MONSOONS.

By Captain Newton.

YOU should not permit the pilot to leave you until the Elephant bears N. by W. and in five fathoms water, except you are very well acquainted with the coast, and know certainly your situation.—When in five fathoms, and the above bearings, you will be nearly mid-channel; and stretching to sea you will soon shoal your water to four and a-half fathoms; then tack, and stand in shore to six fathoms; then tack again, for by deepening your water shews you to be approaching the in-shore dangers. Before you come up with China Buckeer, if it should be night, embrace the ebb-tide, and let your ship drive to the windward under stayfails; and attend to your soundings to know your ship's place.

When you have brought China Buckeer to bear W. by S. you may make your tacks to sea as long as you please; but I would advise your keeping in shore, and by anchoring occasionally, take the advantage of the tides, which run very rapid. Your approach to the shore must be directed by your lead, the soundings being regular until you get a small lump of land, called, False China Buckeer. bearing N.N.W. or until you see Dalla-river; your latitude will then be about $15^{\circ} 50' N$. After you bring these bearings on, or have this latitude, do not come nearer the shore than seven or eight fathoms. Your soundings throughout will be ouze, until you pass
Dalla;

Dalla; then you will have sand and shells, which is a certain sign of approaching Barague-point; one tide's work from which point will take you clear to sea with the wind at S.W.

Trade of Pegue.

The chief exportations from Rangoon and Basleen are, teak timber in baulks (called duggies and arties), keel-pieces, mast-fishes, planks, and sheathing-boards: they have other timber in great abundance, but it is seldom exported; particularly an inferior kind of cedar, both red and white, called jarroll; and which is used there chiefly for compass, and crooked timber in ship-building.

Exports.

This country produces rubies, small diamonds, and other precious stones; iron, copper, tin, lead, wood-oil, earth-oil, wax, dammer, (a kind of rosin, which, when tempered with oil, serves all the purposes of pitch, which latter cannot be used alone in India, on account of the heat, without being tempered with rosin or dammer), elephants' teeth, cotch, and silver. The iron is said to be of so excellent a quality, as to be little inferior to steel: but Europeans, who build ships at Rangoon (the principal port), generally carry their iron-work, ready forged, from the English Presidencies, particularly from Calcutta.

There are but few horses or sheep here; the horses are of the same breed as those on the coast of Pedir, Acheen, and Tellefomoy. They have oxen and buffaloes; deer are exceedingly numerous, but though they are fleshy they are not fat: poultry and hogs, both wild and tame, are very plentiful.

The females of this country are very fond of strangers, so that any man during his stay may be accommodated with a temporary help-

mate: hence most of the commanders, who trade hither, keep one of them, who are very obedient and obliging to their masters. The wife goes to market, dresses the victuals, takes care of her husband's effects, and even sells his retail commodities for him; she is, to all intents and purposes, his upper servant; and if she proves false to him, he sells her for a slave; if the contrary, she poisons him.

When her master quits the country, he allows her from twenty to one hundred ticcalls, for one year's subsistence; but if she has no other maintenance allowed her, she is at liberty at the expiration of the twelve months to choose another master.

The Imports—are

stick-lack, and beetle (areka) nuts, from the coast of Pedir; cocoa-nuts, from the Nicobars; brimstone, from Acheen; cloaths of all kinds, and fire-arms, from the coast of Coromandel and Bengal; iron in bolts and bars, canvas, cordage, and ship chandlery, brass-ware, cutlery, and toys; coarse earthen-ware, from China; sugar, kiss-misses, hing or assafoetida, coral, beads, gunpowder, ghee, arrack, &c.

Customs.

Thirteen per cent. paid in kind, besides presents to the princes, ministers, &c. which, whoever trades here, will find an advantage in making liberally.

Weights.

100 Moo are one Tual.

100 Tual — one Vis, equal to 3lb. 5oz. 5drs. avoirdupois.

150 Vis — one Candy, or 500lbs. avoirdupois.

DIRECTIONS

DIRECTIONS

FOR SAILING TO THE WESTWARD OF THE PARACELLS, FROM
CHINA TO POOLOO CONDORE; AND FROM THENCE TO THE
STRAITS OF MALACCA.

LEAVING Macao-roads, almost all ships take their departure from the Grand Ladroon when it bears East from them; and if the winds hang to the eastward, and the sea runs high, I would by no means recommend the outside (or eastern) passage, the inner one (or that to the westward of the Paracells) being much shorter; and by going (nearly) before the sea, your ship is consequently easier. On the contrary, by going the outside passage, and being obliged to haul up S. by E., or S.S.E., (to prevent the current horsing you to the westward), against a heavy sea, you tear and strain your ship to pieces, and run great risks of carrying away your masts, springing a leak, and many other disasters, (as was the case with the Bowman Yead, a new Bombay ship, and one of the finest ships in the country trade, in the year 1791-2), which heavy laden ships are subject to; more particularly from Canton, where ships take on board, and stow close down in their bottoms, large quantities of tutenague, china, and quicksilver, which makes them roll, and pitch heavier than ships laden with an assorted cargo. As this is only a hint on the merits of the Inside-passage, the more experienced seaman will use his discretion, and, doubtless, guard against the accidents which may possibly happen. I will therefore proceed to give such instructions as I have invariably found good in this track; together with such remarks as I have collected from the most experienced Portuguese pilots, who, from the bad condition of their ships, are obliged to

take this rout in general; and it is a great doubt to me if there are any exceptions.

Ships leaving China in the month of November or early in December, generally find the winds hang so far to the eastward, as to make it difficult to steer high enough to get soundings on the Maclesfield-bank, which is necessary, as well to avoid the Lincoln's Shoal, Triangles, and St. Anthony's Girdle, as to be able to correct their account, so as to shape a course for Pooloo Sapata, and thereby avoid the Andrade-rock, and other dangers thereabout.

As I do not mean to give any directions about the Outside-passage from China, I will not digress further, but confine myself to the merits of the Inside-passage, and endeavour to give the best account of it I can, as well from experience, as information.

Leaving the Ladroon, and being determined to go to the westward of the Paracells, when the Ladroon bears East, steer South 43 or 45 miles, till in the latitude of $21^{\circ} 16'$ N.; then steer S.W. by S. till in the latitude of $16^{\circ} 40'$ or $16^{\circ} 35'$ N. which is the latitude of the north-end of the Paracells; and having made $3^{\circ} 7'$, or $3^{\circ} 10'$, meridional distance, you may certainly conclude yourself within, or to the westward of the Paracells, and in a fair channel. Being certain of your latitude, steer south until nearly the length of Pooloo Camber Mar, or in the latitude of $14^{\circ} 10'$ N.; then haul in S.S.W. and S.W. by S. for the land, taking care not to make it until you are to the southward of Pooloo Camber de Terra, or the latitude $13^{\circ} 33'$ N. —This is the only thing you have to guard against, because of a Bay that runs deep to the westward, and which you will find it difficult to get out of, should the winds hang far to the eastward; to avoid which, keep at least five or six leagues off shore until passed the last named latitude; but it is necessary to make the land about Cape Avarella, or before you are to the southward of 13° N.

Should it be night, and you have not now made the land, steer a point or a point and a-half off shore, under an easy sail, taking care to

to keep from two and a-half to four leagues off shore; nor reduce your latitude under $13^{\circ} 20'$, if possible, before you make and see the land plain, as the southerly currents are very strong through. It is best, if you are about making the land, to work to windward in the night, by which means the current will not have so great an effect. I have known them run true along shore to the southward, from three to four knots per hour, but not always so violent.

Should it happen to be thick weather, which is generally the case, and you do not see the land, haul up W. for it, or W.N.W. to prevent the current horfing you to the southward of Cape Avarella.

Having made the land, and can depend upon the latitude, the ship's place is easily known; the coast lying S. by W. and N. by E. From Cape Avarella coast it along shore at a convenient distance, not more than three or four leagues off, until Pooloo Cicer de Terra bears N. or N. by E.: then a S.W. by S. course will carry you five leagues to the eastward of Pooloo Condore. You may borrow toward Pooloo Cicer de Terra to seven fathoms, two miles and a-half off; but you are not to expect regular soundings, as it is hard coral bottom, with overfalls.

Having run your distance, on the above named course, from Pooloo Cicer de Terra, and in 17 or 18 fathoms (water), land, you will see Pooloo Condore at about four or five leagues distance; then steer S.S.W., and deepen your water to 34 fathoms by the time you have run the distance of Pooloo Timoan; but do not upon any account deepen to more than 36 fathoms, as by keeping too far off you may near Pooloo Domar, which lies in the stream of 40 fathoms, and near it the soundings are no guide, it being steep to on all sides.

Being as far to the southward as Pooloo Timoan, and in 34 fathoms water, steer South, and keep a good look-out for Pooloo Auro, which bears S. by E. and N. by W. from Pooloo Timoan, distance nine leagues, from which continue your course, and if clear you will soon see Barbacet-hill and Bintang-hill nearly at the same time.

You should not near the land under 20, or at least 18 fathoms water, to avoid the funken rock that lies in the fair-way between Pedro Branco and Pooloo Auro, and bears from the latter South, distance seven leagues.

Having Bintang-hill S. half W. coast it along shore, until Barbacet-hill bears W. half S., you will then (if the weather is not thick or hazy) see Pedro Branco, bearing S. by W. or S.S.W. distance three or four leagues.

Observe not to come nearer the reef off Point Romania than 14 or 12 fathoms, nor should you keep further off than to bring Bintang-hill to bear S. half W., by which means you will avoid the strength of the current, which sets strong to the southward at this season of the year, and be able to see Pedro Branco much sooner than by keeping a larger offing.

Having Barbacet-hill W. half S., and Pedro Branco in sight, bearing S.S.W. in 17, 18, or 19 fathoms water, haul into the Straits of Malacca, coming no nearer Pedro Branco than 22 fathoms, nor to Point Romania than 14, or at least 12 fathoms.

If there is not a probability of your getting within the Straits' mouth before night, I would not recommend to you to run, but either bring to well to the northward, or keep working to windward all night, while you have sufficient drift, as the entering of these Straits should not be attempted in the night or thick weather, when the above leading marks and cross-bearings cannot be seen.

FURTHER

FURTHER DIRECTIONS

FOR THE INNER PASSAGE, AND TO KNOW THE LAND.

CAPE Avarella lies in latitude 13° N.; it is a long sloping point of moderate height, stretching to the S.E. with very high land at the back of it; a high-peaked mountain to the northward and westward of this Cape makes it easily known. To the southward of it the coast forms several bays, with some barren islands under the main: the most remarkable is Fishers Island, being longer than any of the others, and of a moderate height. The three islands, called by the Portuguese Inhaatrao, for which we have no name in our charts, lie a little way to the southward of Fishers Island: the southernmost is high, in the shape of a hay-cock; its latitude $12^{\circ} 22'$ N.: the others are small rocks.

The Aquada Islands, so named by the Portuguese, are not named in our charts: they are six in number, the southernmost is high, and shaped like the ridge of a house; the middle is larger and longer than those to the northward, and is of a moderate height. The coast hereabouts continues high, with several bays. A little to the southward of the Aquada Islands, on the main (near the sea), are several white pitches or downs of sand.

Cape Padran Falso, or as it is called in our charts, Cape Avarella Falso, is tolerably high hilly land, and steep to, with a small island near its westernmost extremity. The land to the westward of it is high, with a peak resembling that near Cape Avarella. The coast here has several openings or bays, as well to the northward as to the southward of it. Between Cape Padran Falso and Cape Padran, (called in our charts Cape Cicer), the coast forms a deep bay, called

Foul

Foul Bay, with several islands. The pitch of Cape Padran is of a moderate height, with very high land to the westward of it from Cicer or Padran-bay; which proves how erroneous our charts of this coast are, as they lay it down as a low flat point. A little to the southward and westward of it the land is low, and continues so to Tiger Island.

Pooloo Cicer de Terra lies in latitude $11^{\circ} 12' N.$ and longitude $108^{\circ} 22' E.$ of Greenwich.—It is a small rocky island, of a reddish colour, and has some ragged rocks, like the ruins of an old building, on the south end of it, and lies about three leagues off shore. You may borrow to within two or three miles of it, in 7, 9, or 11 fathoms, there being no danger though the soundings are very irregular.

Pooloo Cicer de Mar is a pretty high island, in latitude $10^{\circ} 31' N.$ longitude $108^{\circ} 30' E.$; the south-end is highest, and the north-end flat.

DIRECTIONS

FOR MAKING A SOUTHERN PASSAGE FROM BENGAL TO BOMBAY,
IN THE CONTRARY OR SOUTH-WEST MONSOON.

JUNE the 4th, we left the pilot in nine fathoms water, in the South Channel, supposing Point Palmiras to bear W.S.W. distance seven leagues; a small grab-bow and ship in company, several vessels then in Bengal preparing to go to Madras and Bombay.

We stood away to the southward close upon a wind, it blowing from the W.S.W. a fresh gale; and as the wind drew to the southward, we stood in to the westward again. Finding we should be in want of water, resolved to make the best of our way to Madras, to which port we had 31 days passage. We found, to our great surprise,

prise, that some of the vessels we left in Bengal-river had been there and failed, having, by keeping along shore, had a 10 or 12 days passage from the pilot to Madras. The grab-bow which failed with us was in Madras-roads, with some of her cargo delivered; I therefore conclude, that keeping along the coast is a more certain method of making a quick passage to Madras, or any of the southern ports, than by standing off to the S.E. as we did; as, from the great track of country the southerly monsoon has to blow over, it is more than probable to expect land and sea winds, or at least the winds to blow along shore so late in the season. But these land and sea, or along-shore winds, do not prevail off Point Palmiras, nor in the bottom of the Bay of Bengal (owing to the innumerable shoals on that coast, and all across the mouths of the Ganges as far as Chittagong, which keep ships so far to the eastward to avoid these shoals, that they are out of the influence of these winds. When they do prevail there, or when they do reach them, they are faint and nearly exhausted).

To take the advantage of these winds, I would recommend the following Rules, deduced from my own experience.

Having made sufficient southing, so as to be able to stand to the westward, though at a disadvantage, and weather the False Point, to the southward of which there is no danger, until you are the length of the Santapilla-rocks, I would advise you to work along shore, observing to be well in with the land by two o'clock in the morning, about which time, or before, the land wind generally comes off (but one day's trial will guide you better than a multiplicity of instructions). Stretching off shore you will get a sea breeze, or rather along-shore wind, that will carry you in with the land in good time.

As there are particular times when those winds do not prevail, and you may be disappointed in your expectations from what these instructions promise, the working in smooth water and a weather-
shore

shore will sufficiently compensate, by easing your vessel and preventing her tearing her sails and rigging to pieces. Should you be on the coast, and not meet these favourable winds, you must not be discouraged by it, but stretch in with the coast occasionally, about the time they may be expected off. Indeed I would not advise you to stand off shore more than one degree, till you are nearly as far to the southward as Point Guardawar; from which stretch to the southward, and work up to the westward, so as to fall in with or to the southward of the Armigon-shoal. You may now depend upon favourable westerly winds, and will often have a sea wind as far round as S.E. or S.S.E.; with which you will soon get to the southward in long stretches both ways.

You will now begin to find a drain of southerly current, which will assist you; but this I own is a bold assertion, and in contradiction to all instructions before written on the subject: but as late as the month of June, when the southerly monsoon is general all over India, it may be expected; and whoever depends upon it will not be disappointed.

The monsoon having blown along the coast of Coromandel from the early part of April, must at this time begin to die away, and the strong northerly currents which set along the western shore are now running out in the middle of the bay, and, having no vent to the northward, must run back to the southward by the shores. This is proved by the eastern shores of the Bay, as the waters find a passage through the Straits of Malacca, and along the west coast of Sumatra.

Now, when the S.W. monsoon is general, and blowing in a diagonal line across the Bay of Bengal, and having a very long range of 30 or 40 degrees in a southerly direction, it must force a large quantity of water into the Bay of Bengal, in a direction with the Adaman's and Nicobar Islands; and as the west coast of the Bay of Bengal may, at this time, be said to be a weather shore, and make a smooth sea, it is no more than natural to conclude, that part of the great body of waters,
which

which is forced in by the southerly winds, (after passing the Equinox), is acted upon by the westerly winds, partake of its influence, and are driven forceably against the shore of the Adamans and Pegue, from which it will be still forced to the northward, by the southerly winds constantly blowing, and find a passage out by the coast of Orixa, and so to the southward, by the Island of Ceylon: add to all that has been said that the rains which have been falling in the bottom of the Bay of Bengal for some time, and the rivers swelled with them, now begin to empty themselves in rapid currents. These circumstances are sufficient to convince me of the justice of what I have advanced, and it is only necessary for any person to look at the geographical situation of Bengal Bay, and be convinced also. It is unnecessary to say more on this head, but leave the discussion to the natural philosopher, whose province it more immediately is; and proceed to assist the navigator with all the information my ability and experience will admit.

Leaving Madras, coast it with land and sea breezes, and along shore, until you come as far to the southward as 11° or $11^{\circ} 30' N.$; then stretch away to the S.E. or S.S.E., giving Point Pedro a large birth, as you have no business to come nearer Ceylon than 8 or 10 leagues; if you are further in, you loose the true monsoon. You will by this means carry the true monsoon in a fresh gale, from the opening between Ceylon and the Coromandel coast, until you begin to open the south end of Ceylon, when the winds generally take a more westerly direction, though not for any great distance; perhaps they will blow W.S.W. and S.W. for a degree or two, and you may find here a confined sea, occasioned by these westerly winds and the swell round Ceylon. Crossing that from the southward, stand to the south-eastward, with the sails clean full, for I am not partial to hugging the wind where there is good sea room, nor indeed at any time. Cross the Line as far to the westward as the winds will permit, only with this precaution, not to cross the Line to the westward of the Frier's

Hood, until you are to the southward of the Ouras, as laid down in the *Oriental Pilot*, particularly the Three Rocks seen by Captain Miffener. Standing to the southward and eastward, you will increase your East Variation, and perhaps by the time you reach the Line, may have $2^{\circ}30'$ or $2^{\circ}35'$ East Variation, in which case you may safely reckon yourself in $88^{\circ}30'$ or 89° East longitude from Greenwich; or 8° or $8\frac{1}{2}^{\circ}$ to the eastward of Madras. As you near the Line, the wind will draw more to the southward; stand upon that tack you can make most southing on, giving the preference to the S.E. board.

There is now a choice of two different tracks, for making a passage to the southward with safety, independent of that laid down by Mr. Nicholson, as far as 10° S. One of these are to the southward of that large archipelago of shoals and islands, called the Basses de Chagas: and the other to the northward of these dangers.

For the better understanding of these Directions, I shall first take notice of the prevailing winds.—As the S.E. winds seldom reach to the northward of 2° S., and are even faint in the latitude of 4° S. in the months of April and May, and indeed in the early part of June; I would recommend the southern track, for ships at this time must go as far as $6\frac{1}{2}^{\circ}$ or 7° , probably $7^{\circ}30'$ S. before they get the fresh trade. In this case, I would recommend running your westing down in $7^{\circ}35'$ or $7^{\circ}40'$ S.; making Diego Garcia, which you cannot miss, and by that means correct your longitude, as the situation of that island is well known. Its latitude is $7^{\circ}30'$ S., and longitude $72^{\circ}27'30''$ East of Greenwich: and it may be seen in clear weather from a ship's deck four leagues.

After making Diego Garcia, I recommend your making $1\frac{1}{2}^{\circ}$ or 2° more westing, and then steer to the northward, so as to cross the Line in longitude 65° or $64^{\circ}30'$ E.; by this means you will have a leading wind, though it should hang more to the westward than at this season of the year you have reason to expect.

In

In the latter part of June I would recommend the northern track; as you will in general have fine pleasant weather with only a few squalls at times; whereas in the southern track, at this time, you have it sometimes blowing (weather) with great violence, and dark cloudy rainy weather, and all dependence upon observations of any kind rendered uncertain. The latitude of $4^{\circ} 30'$ or $4^{\circ} 45'$ I would recommend as the best and most expeditious; and you have an opportunity of correcting your longitude, by getting soundings on the Speaker's Bank, which is well ascertained. Its latitude is $4^{\circ} 45'$ S., and longitude $72^{\circ} 57'$ E. I have doubts of the existence of Adie and Candy, as well from the accounts of several that I have seen, as what I have noticed going this passage; nor do I believe any such shoal, rock, or island, as that called Gama, to exist. I shall say something of Diego Rais, but shall proceed first to the Line. In the other track, having corrected your longitude by getting soundings on the Speaker's Bank, continue your westerly course, and cross the Line in longitude before mentioned in 65° or $64^{\circ} 30'$ E.; by this means you avoid entangling yourself with the Banks of Cherbaniana or Padua, or labouring under the smallest apprehension of falling in with the Malabar Coast before you have made good your northing.

Having run into the latitude of Bombay, follow Mr. Nicholson's Directions for making and knowing the land, and sailing into the Harbour, or the subsequent Directions for making Bombay in the S.W. monsoon, to be certain of a good landfall.

SOME ACCOUNT OF THE ISLAND OF DIEGO-RAIS, AND THE BANKS
OF CHIRBANIANIA, AND PADONA (OR PADUA).

THE cluster of islands, called Diego Rais, and said to be near the Line, I am clearly of opinion is not to the eastward of 70° E.; neither are any of the banks, said to be situated about the Lacavavies, to the westward of $71^{\circ} 30'$ East longitude, or we must have run over them this voyage; for we had, both at the Line and about latitude $12^{\circ} 20'$, several good observations of the sun and moon's limbs.—By the Hope's track, which was only stretching from Mount Dilly, and could not err much in that time, the Cherbaniania, on which she saw part of a wreck, lies in latitude $11^{\circ} 10'$ N. and meridian distance from Mount Dilly $3^{\circ} 5'$ W., or longitude $72^{\circ} 16'$ East of Greenwich; this is the westernmost danger which was seen in this track: and the island Banca Point, which is the northernmost danger she saw, (from which the Bank of Padua extends,) lies in $11^{\circ} 35'$ N.; meridional distance from Mount Dilly $2^{\circ} 55'$ W., or longitude $72^{\circ} 26'$ East of Greenwich.

Note. This is the north-end of the dangers, as they could not see the south-end from on board the Hope.

In these regions the Sea Cocoa-nuts are to be met with. This fruit is a natural curiosity, and the production of the palm. Some account of the varieties of the fruit of that tree, and of the tree itself, so useful to the natives of India and Persia, may in this place prove both amusing and instructive.

The

The natural history of the palm-tree is extremely curious. This tree flourishes the most in those countries where no others exist, and would seem intended by nature, from its extreme abundance and variety, to supply the want of all others. Those which bear dates are the true race of the palm. In India they do not produce that species of fruit; for, in the northern parts of that country, the only part of it where the date-tree grows, the fruit never arrives at maturity. In Africa, and all over Arabia, they are found in the utmost plenty; but in the former country they are supposed to arrive at the greatest degree of perfection.

In Arabia there are several varieties which serve, according to their quality, as the food of the inhabitants and as provender for their cattle. That which is most superior in taste and flavour is called Muxana; they are small, and principally reserved for the use of the Sherreeffs, none being allowed to be exported from the country. The more common sorts form a very considerable article of commerce by caravans all over the three Arabias.

The palm, equally with the fig-tree, requires the aid of the male plant to bring the fruit to maturity; but it is much more prolific than the fig, and is advanced by one peculiar excellence above all other trees. The palm-tree takes no repose as others do, but every month in the year presents new fruit. A cluster of thirty or forty nuts, sometimes more, appear monthly; of which seven, or at the most twelve, come to perfection.

The most favourable climate or soil, which produces the greatest abundance of this tree, is Asia, particularly that part of it called India, containing the kingdoms and provinces which lie to the southward of the two rivers Indus and Ganges. The land nearest the sea side produces the best, the air from the sea being very favourable to them.

The natives distinguish them by particular names, and reckon eight varieties, all differing in their trunks, leaves, fruits, produce,
and

and appearance, yet retain the name of Palm-trees. That which is best entitled to this distinction is the tree which bears cocoas; of these some are wild and some are cultivated; the best are called barca, which signifies excellent. The nut is savory and wholesome, and though eaten in ever so great a quantity, do not surfeit. What is remarkable, the same tree bears at the same time both the barcas and the common nut.

If the roots of this tree are moistened by the sea or any brackish water, its bearing is much improved. Of the other seven sorts, some are esteemed wild, from their fruit, soil, and the little manuring they require. The tree called cajura, or brab, is the peculiar one which bears dates. In India this tree yields no fruit, but affords a liquor which is distilled and made into wine. Another sort is named areka, from the nut of the same name; another variety is called the talipot, of whose leaves large umbrellas are made. This tree yields no fruit. There is another tree of the race of palms, the fruit of which is called the foxes'-fruit; it is unpleasant to the taste, and therefore may be termed a wild date. The tree called berlím bears no fruit: its boughs are used for adorning churches. The kind called macomeiras is without doubt a species of the palm: the fruit, in clusters of thirty or more, is as big as an ordinary apple when ripe, of a date-colour, and very grateful to the taste.

The last to be noticed is a species of the cocoa-nut, which are seen floating on the ocean off the coasts of Africa and Arabia, at the distance of above two hundred leagues, and are therefore called sea cocoa-nuts; they are about the size of a man's head, and grow double; the colour of the rind is black, and they are so much esteemed by the natives as a remedy for many diseases, particularly against poison, that they have been known to sell for their weight in silver.

These nuts are the growth of the Isle of Praslin; and it is upon this island only that the palm-tree is found, which produces this fruit
hitherto

hitherto known by the names of Sea-cocoa, Solomon's-cocoa, or the Maldivian-cocoa. This fruit being uncommon, its form particular, like a scrotum, and its origin unknown, have all contributed to assign to it extraordinary properties; and to give rise to fables concerning its existence, as is usual everywhere with respect to what is unknown and singular.

The tree which produces the sea-cocoa rising in many parts of the principal island upon the border of the sea, the greatest part of the fruit falls into the water, where floating, it is carried by the wind and currents towards the Maldivian Isles, the only part of the world where this fruit had been found before the discovery of the Isle of Praslin; from whence the Europeans called this cocoa, the Maldivian-cocoa, and the Maldivians, *travacarné*, that is, treasure. It was afterwards called Solomon's-cocoa, to give it a name corresponding to the marvellous accounts annexed to its origin. The tree that produced it being unknown, it was believed to be the produce of a plant that grew at the bottom of the sea, which came off when it was ripe, and by its lightness floated on the waves. There was nothing wanting to complete the fable, but to ascribe very great and extraordinary virtues to this fruit; and this was done accordingly. It was given out, and believed, and is still believed throughout all Asia, that the almond of the sea-cocoa has all the properties which we attribute to *theriaca*, and which perhaps we exaggerate, (*viz.*) that its outward covering is a certain antidote to all kinds of poison. The grandees of Hindoostan still purchase this fruit at a very high price: they make cups of the shells, which they adorn with gold and diamonds, and never drink out of any other, being persuaded that poison (which they are very much afraid of, because they often employ it themselves against others) let it be ever so active cannot hurt them, if their liquor is but purified in these salutary goblets. The King of the Maldivian Isles avails himself of this general error: his predecessors assumed, and he reserves to himself, the exclusive right to a
fruit,

fruit, which, being carried upon the waves and driven ashore by the wind, ought to belong to whoever picks it up. But this sea-cocoa, when it shall be found not to be so rare and extraordinary a production, will doubtless soon lose its value and virtues, and the Maldivian monarch the tribute which has been paid him by ignorance and error.

The Isle of Praslin is at most but six or seven leagues in circuit; makes part of the archipelago, known formerly by the name of the Three Brothers, afterwards by that of the Mahé, and now by that of The Sechelles. In this isle, of so small an extent, and in this isle alone, has this cocoa (so valued in India) been hitherto discovered. But how comes it that it is not to be met with in the isles adjacent? How comes it that the tree which produces it does not grow upon them? Why was it confined to the Isle of Praslin, when that archipelago was separated from the continent, and this part of the globe changed into a collection of isles by an eruption of the sea? But I leave this subject (the discussion of which would be long and difficult) to naturalists, and proceed to give some account of the tree which produces this singular fruit.

This tree, upon an exact observation, has been found to be a species of the latanier, or lontard, of India; it rises forty-two feet in height, or nearly so; its head is crowned with ten or twelve leaves in the form of a fan, about two feet high by fifteen wide, supported by stalks six or seven feet long. These leaves are of an oblong round form, and each lobe is bifid at top: their substance is firm and tough, which makes them better coverings for houses, in the Indian manner, than those of the common cocoa-trees.

From the base of the leaves rises a loose spike, commonly six feet long and very much branched, the base of which is fleshy and thick; the branches are terminated by collections of female flowers, which appear to be all one calyx, composed of several pieces, of five, six, and sometimes seven divisions. The pistil becomes a round fruit, a foot

and a-half in diameter, the outer coat of which is very thick and fibrous, like that of the common cocoa. This fruit contains three nuts, one of which is generally abortive. These nuts are nearly round, flat on one side, and divided lengthways in the middle half way, into two parts, which gives them a very singular appearance. Their inside is at first filled with a white liquor of a bitter and unpleasant taste: as the fruit grows ripe this liquor changes (as in the common cocoas) into a solid, white, and oily substance, which adheres to the inside of the shell. Clusius gives a slight description of this cocoa, under the title of *Nux Medica*.

It were to be wished that we could discover, by repeated trials, whether the opinion of the Indians concerning the virtues of this nut be well founded.

Every one of these fruit has the calyx, which I mentioned above, at its base, and which does not fall off even after the fruit is quite ripe.

The trunk of the tree is like that of the cocoa-tree, but in general larger, harder, and blacker.

Some plants and nuts of this tree have been transported into the Isle of France, and succeeded very well.

The tree which I have just described, appears to have been a female. Those who visited these isles in July, which was certainly the season of the fruit being perfectly ripe, met with no other. But M. Cosde, who harboured in this archipelago in October, has described a part of a male catkin of this tree; which seems to fix the time of its flowering to September, which answers to the European spring; and the time of maturity to June and July, which answers to our winter. This part of the catkin was cylindrical, two feet and a-half long, and four inches in diameter, covered with an infinite number of male flowers, composed of a calyx of six divisions, and a stamen opposite to each. As the male catkins have not yet been found on the same stems that produce fruit, it is probable that this tree produces them on different individuals; so that

this palm may be reckoned, as I said before, a species of the lontard; which it also much resembles in all its other parts.

Palm-trees have neither a thick trunk nor boughs like other trees: as they grow in height, they branch out at the top, and open to make room for others; and as the old ones fall, they leave an impression in the tree. The tree called *macomeira* (from the fruit named *macoma*), has the peculiarity of dividing itself into two trunks, when arrived at a certain height. The *areka* or beetle-nut tree is the tallest of the palms, and grows proportionably thick; the wood is solid and strong, and did it possess sufficient substance, might be converted into masts for large vessels; for small vessels they are frequently made use of.

The soil most congenial to the palm is, as before-mentioned, what is moistened by the sea or salt-water. The palm-tree has, by experience, been found to thrive best near inhabited houses, or in low grounds, where they are sheltered from high winds, which, from their height, are prejudicial to them.

These trees are produced by sowing the nuts in a bed, and covering them with earth. In a short time they put forth a shoot, and, when arrived at some growth, are transplanted into a place destined for that purpose. These plants are manured at a small expence; they require but little water, and to the roots are laid ashes and all kinds of shell and putrid fish; to some they apply mud taken out of salt marshes, which is reckoned highly beneficial towards its fruitfulness: they bear fruit in five years, if planted in soft artificial beds, but without such aid not before seven.

The fruit of every species of this tree comes forth thus: from the stem of the palm shoots out a twig, resembling a Moorish scymitar: this opens and puts forth a cluster of thirty, fifty, eighty, and sometimes an hundred nuts, about the bigness of an hazle-nut. Few of these arrive at perfection; seldom more than twelve or fourteen: the rest drop off, and a new cluster supplies their place before the first is

ripe or cleared of the flower, and thus every month produces a fresh bunch. The palm-tree resembles an indulgent mother, environed by greater and smaller children, at the same time feeding these and bearing others, a rarity not experienced in other trees.

The fruit of the cocoa is productive in various ways: while the kernel is soft and full of water, the natives drink it as a sweet and pleasant beverage: when arrived to a greater consistence, like that of cream, it is eaten with spoons: and when come to maturity it is agreeable and well-tasted, but hard of digestion and unwholesome. The nut barca is the only exception, which is pleasant and harmless. The thin black rind which covers the kernel is good in medicine; the kernels separated from the rind, divided and dried in the sun, are called copra, of which excellent oil is made. Every part of the cocoa is of some utility: the outer rind, called coir, is not unlike the strong fibres of certain plants; and when well macerated and drawn into threads, affords lines and ropes large enough for vessels of any size; cables made of it are highly esteemed, as they will bear considerable stretching: and as they will not rot in salt water, they have a great advantage over cables made of hemp. The second rind, the immediate cover of the cocoa, when green, is eaten like char-dons; when ripe it is very hard and thin, and is made use of in different ways; when burnt into charcoal, it admirably tempers iron, and is accordingly much approved of by artificers.

Besides the above-mentioned excellencies, the palm-tree and its fruit are productive in various other ways. The tree alone is sufficient to build, rig, and freight a ship with bread, wine, water, oil, vinegar, sugar, and other commodities. There are instances of vessels, where the bottom and the whole cargo has been from the produce of the palm-tree. The vessels are called Pangaryos, on which the natives coast the African shore, and go into the Red Sea: they do not venture far from the land, being weak, without any binding of iron, and unable to endure any stress of weather. The palm-tree

yields plank, which is, however, weak and spongy: the planks are sowed together with fine thread, made of the outermost rind of the nut; the seams are caulked with oakum of coir; it is afterwards laid over (as is usual) with the fat of fish, serving instead of hot pitch: where nails are wanted, they are supplied by wooden pins made of a certain species of the palm-tree; the mast is also of the same tree, and does not require much trouble in fitting it. Ropes of all sizes are made of coir: sails are woven of the leaves of the palm-tree called *cajuras*, of which sacks are also made, in which they carry millet, &c. Bread the same nut supplies; when dry it is called *copra*; when green, named *puto*; which grated and put into hollow banes, is termed *cuscus*. The nuts when green, and before the kernel arrives to any consistency, produce water, which is clear, sweet, and pleasant. Oil is made of *copra* (that is the nut dried in the sun), and used in great quantities by the people in India, who have no other besides this, but what is drawn from a seed called *jingerly*, which is much inferior, and only used by the poorest class.

The wine requires some pains and assiduity. When the palm-tree puts forth her shoot, before the cluster appears, they cut off three fingers' breadths from the point, and, tying it near the incision with a reed to prevent flitting, put the end of the shoot into a pitcher made for that purpose; and the shoots weep that juice which should have produced cocoas. This liquor is drawn twice in the day; in the morning, that which was exuded in the night, and in the evening the distillation of the day: the men employed in this business are called *Bandarins*, who, with a gourd hung at their girdle, and with a pruning hook in their hand, climb the tallest palm-trees, some of which, particularly those called *cajura*, are of a prodigious height; they ascend as on a ladder, by notches made in the trunk of the tree, and with apparent ease and security.

In palms of a lesser size, called the *brab-tree*, and of the class which, in Africa and Arabia, yields dates, they make a hole in the trunk,

trunk, in which they place a cane, through which the liquor distils; and which, if the tree affords this liquor, bears no cocoas. This liquor is sweet, medicinal, and pleasant, and is called *sura*; it is set by the fire in large vessels to distil as in an alembic, but with this caution, that they continually cast cold water upon the vessel, lest, as a spirit, it should take fire. This is the wine made of the palm-tree, called by the natives arrack: it intoxicates like spirits, and is much more powerful when distilled a second time, as it then becomes a quintessence. Of this arrack excellent vinegar is made, by putting into it two or three fired sticks, or a great stone well heated. Sugar is made of the sweet *sura* fresh from the tree, which boiled till it coagulates, becomes good sugar. The merchandise afforded by the palm-tree, and laden on vessels, are dried cocoa-nuts, the rind and various other commodities before-mentioned: thus the palm-tree builds, rigs, and loads a vessel with goods and provisions, all its own produce.

The palm is, undoubtedly, superior to every other tree, from the various advantages arising from its productions.

All places do not produce cocoas of the same size: they are great or small, according to the nature of the climate and quality of the soil. The coast of Malabar being cool, and abounding with rivers which spring from the mountains, to whose base this coast extends, affords such large cocoas, that the *lanhas*, (namely) young and imperfect nuts of Cochin and these territories, are each sufficient to quench the thirst of two persons. After these, are to be ranked those of the island of Ceylon, where the ground is very luxuriant, yet inferior to the soil of Malacca and the places adjoining, where the cocoas are the largest. Those of Arabia Felix are finer than any yet spoken of, from the goodness of the soil and the nature of the climate.

The palm-tree continues flourishing several years; and its age is said to be known by the number of marks left by the branches dropping off. Among the other uses arising from the produce of the palm,

palm, may be added that of the boughs and leaves, which made up with a wick serves as a torch, by the natives called *chulé*, who use them as a security against snakes, when obliged to travel: they are also used when fishing in the rivers: the leaves are made into coverings for their palanquins, which defend them from the rain and sun. Some palm-trees afford a leaf called *olhas*, which serves as paper, on which they grave the letters with an iron pencil. The leaves of the *cajura*-tree dried remain of a white colour, which are made into light cheap hats: the bark of the *poyo* or the twig, being of a thicker and stronger substance, furnishes the common people with caps.

The trunk of the palm-tree being slender and disproportionate to its great height, the whole weight of the boughs and fruit being at the top, in a manner at the vertical point of the slim body, the shock of winds would, without doubt, easily break and destroy this disproportioned fabric; but Nature, ever provident, has, against this, furnished each bough with swathes of the same matter and texture as the palm-tree, and not unlike coarse cloth or canvas: with these the branches are so strongly secured, as to defy the violence of the wind to injure them.

DIRECTIONS

FOR MAKING BOMBAY IN THE SOUTH-WEST MONSOON TO BE
CERTAIN OF A GOOD LANDFALL.

THE S.W. monsoon in general sets in between the 1st of June and the 15th, if the full or change happen near that time, with a hard gale from the S.S.W. and S.W., with dark cloudy weather and heavy rain, which lasts for five or six days or more. A ship that is bound to Bombay in this season of the year, should keep the latitude of $18^{\circ} 42'$ or parallel $18^{\circ} 43' N.$ until she has soundings, which will be 36 or 38 leagues off the coast, at 55 or 60 fathoms; and from that depth she will run 23 leagues before she comes under 40 fathoms; she will then be about 13 leagues off the island. About eight or nine leagues from this island there is a sand bank, lying parallel with the coast, the north end lies in $18^{\circ} 43' N.$; you will have 36 fathoms without, 31 or 32 upon it, and 37 within. For further description of this bank, consult Mr. Nicholson's book of Remarks. This bank being a great guide for sailing into Bombay Harbour, is the reason I would advise a ship to keep in that latitude. Mr. Nicholson mentions, in his Remarks, making an allowance of 18 or 20 miles for a southerly current; but therein he is mistaken, being assured, from my own experience, there is none such at any time of the monsoon, but rather a drain to the northward.

When you have got under 40 fathoms, keep your lead going constantly, and to know the colour of the ground, as well as the depth of water, if you meet with sandy ground. When you have shoaled your water to 32 or 33 fathoms, and then deepened again, you may be
certain

certain of being upon the above bank; if not, and you decrease your soundings from 40 to 20 fathoms gradually, you are then to the northward of it; but should you have no soundings of sand and mud when in 30 or 32 fathoms, then steer E. by S. and E.S.E., which will carry you in sight of the Island of Kenery, bearing E. half N. or E. by N. when in 9 or 10 fathoms; but should it be so hazy that you cannot see the island, or any land in that depth, stand to the northward two or three miles, and you will deepen to 11 or 12 fathoms or more, if off Kenery; or if you stand to the southward you will probably shoal to eight or eight and a-half fathoms, and may be then certain of your situation; whereas if you steer in $18^{\circ} 50'$ N. you will be considerably to the northward, and must look-out for Malabar-point, which is the first land you will see: if hazy weather, and at high water in 11 and a-half or 11 fathoms, you will not be more than three miles off shore; and should you not pay attention to the tides when under 17 fathoms, you may be forced to the northward, which will oblige you to stand off to the westward, whereby you will lose a great deal of time before you can fetch Bombay. In the years 1786, 1791-2-3 and 4, the beginning of the monsoon, the wind was mostly from S.E. to S.W., under 40 fathoms, and without that depth it was at W.S.W. Should you make the Island of Kenery in 9 or 10 fathoms, you may then haul to the E.N.E. or N.E. by E. and keep along in seven and seven and a-half fathoms, but not under until you have sight of the light-house upon Old Woman's Island, which keep N.N.E. and N. by E. half E. until you see the Great Carranja; bring the monastery, that stands on the north end, E. by N., you are then in the mid-channel, and may steer according to Mr. Nicholson's Directions. In keeping on this side, and in the above depth of water, you will have a large swell setting you in shore; you must therefore be very attentive to your lead, and by steering the above course, when you are to the northward of the ground of Tull-point, you will deepen to seven and a-half, a quarter less eight, or eight fathoms,

fathoms, according to the time of the tide, and may be certain you are entering the Channel between Tull-shoal and the reef off Old Woman's Island. And if you cannot get a pilot on board, steer East until you have Mazagon-house a sail's-breadth open to the eastward of the N.E. bastion of Bombay Fort, which will carry you clear of all danger to the westward up to the shipping in the harbour.

Bombay is the emporium of commerce on the western side of India, and is situated in latitude $18^{\circ} 58' N.$, and longitude $72^{\circ} 38' E.$ This ancient domain * belongs to the East India Company, being held in fee-simple from the crown. It is from this circumstance, as well as prescriptive right, unalienable. Whatever may be the fate of the territorial acquisitions of the Company in India, this possession, while they are able to protect it from invasion, must continue to the proprietors of India stock a valuable establishment. The harbour is the best in India, and capable of containing any number of ships, to which it affords the most perfect shelter. Its docks admit ships of war of eighty guns; the yards are proportionably large, and well provided with marine stores of every description.

Bombay was, very soon after the discovery of the passage to India by the Cape of Good Hope, anno 1498, settled by the Portuguese. From the excellence of its harbour, formed by a long chain of narrow islands and the continent, it was named by that people the Buon-bahia. On the marriage of King Charles the Second with the Infanta of Portugal, anno 1662, the island of Bombay, and Tangiers in Africa, with 500,000*l.* were the dower of that princess. Lord Marlborough in 1663 sailed from England with five ships, to receive possession of the island from the Portuguese viceroy; but the obstinacy and bigotry of the clergy would not permit of its being delivered, although by the king of Portugal's order, to heretics. It was

* See Letters on India, published in 1800, by Carpenter, Old Bond Street.

not till next year, after the departure of Lord Marlborough, that Sir Abraham Shipman, the governor appointed by King Charles, was able, by means of a treaty with the inhabitants, securing their property and the free exercise of their religion, to obtain possession. The island and castle were shortly transferred by King Charles to the East India Company *for ever*. The settlement of Bombay became about this period the seat of the English power in India, to which all the other settlements were subordinate.

This little island commands the entire trade of the north of India, together with that of the Gulfs of Persia and Arabia. It is the great mart of Oriental as well as of European commerce, and in the article of cotton alone exports yearly to China upwards of one million sterling. Besides being the centre of trade, it is a place of great importance, naval as well as military. Without a fleet to protect the trade on that coast, the pirates which infest it would, in a very short time, put a total stop to trade; and without a military force there would be no check on the Mahrattas, or other native powers on the north-western side of India. The arsenal and magazines are abundantly supplied, and are carefully attended to.

Bombay, from its insular situation, guarded very generally by a rocky shore, bids fair to be the most durable of all our eastern possessions, and therefore should be held for the proprietors so long as it is for the interest of this country to preserve the independency of an East India Company.

The island of Salsette, which is only separated from Bombay by a narrow arm of the sea, is every day becoming of more importance. The soil is peculiarly adapted for the cultivation of indigo, sugarcane, flax, and hemp.

Establishing a flax manufactory in India, under the patronage of the East India Company, is a circumstance which has frequently occurred to my mind; and therefore, in this place, I beg to remark,

that great quantities of spirit, called bang *, is distilled in India, from the leaves of a plant which grows wild; the value of the stem is hardly known, being very little applied to the useful purposes of which it is capable. In order to bring so valuable a plant into immediate use and general utility, the fibrous parts might easily be converted into yarn, capable of making sail-cloth of the finest fabric, and in texture equal, if not superior, to that with which the British navy is at present supplied. The inferior part of the plant could be manufactured into coarse cloth, such as tarpaulins, facking, &c. &c. so that every thing would be completely worked up, agreeable to the various qualities of the raw material.

By the cultivation of this plant, it might be so improved, that when converted into yarn by machine spinning, it would well bear the expence of freight from India to this country, and prove a material advantage, more consistent with the true interest of this country than the present ruinous plan, of importing annually to the amount of five millions sterling in raw material, yarn, and cloth, from the Continent. Such an immense balance of trade, which now makes against this country, would be thrown into the hands of the East India Company, and more effectually support the commercial interest of Great Britain, by producing yarn better in quality than that from the Continent, and manufactured upon that kind of principle which will make the produce from the material invariably good in strength and flexibility.

The island of Salfet, as has already been observed, in point of soil, water, and climate, is well calculated for the cultivation of fine flax; contiguous to it, is fossile alkali †, a commodity of great value in the

* Bang is a species of opiate, much esteemed by the natives of India. It is the leaf of a kind of wild hemp, differing very little, either as to the leaf or seed, from British hemp.

† Great praise is due to Dr. Helenus Scott, of Bombay, for his Researches in Chemistry, and in bringing to light many important discoveries in the natural history of India, particularly on the western side of that continent.

scouring and bleaching of yarn. This island, at present almost useless to the East India Company, may be made a very considerable acquisition, and be the means of bringing into use many valuable articles which at present lie unnoticed. On this new principle of spinning, it includes the whole extent of the linen manufactory, from the coarsest sacking to a texture of cloth as fine as cambric. This last assertion may be thought vague and erroneous by many, yet the produce of the machinery must certainly substantiate the fact, and open a field new and unexpected; it will also render sail-cloth more perfect for the British navy, which at present is much inferior to that of the Dutch and French.

The natives of India could manage the machinery with the greatest facility, and the process of raising, cleaning, and spinning, would afford subsistence to many, now in absolute distress for want of employment. The Americans would also take a large quantity of thread annually.

I need scarcely observe, that the canvas and cordage of this plant have been in general use in the country shipping trade of Bengal upwards of ten years past; and Mr. Lewis of Chittagong has much merit in bringing it to its present perfection, which will still admit of much improvement. I had many of my sails in the *Varuna* made of this material, and in a fair trial, (a winter passage to Europe,) I found them equally, if not of more durability, strong as the English, Danish, or Russian canvas which I had, of the same number or quality.

For the European market, Bombay is an excellent place to procure gums and drugs of all sorts, coffee, barilla, cornelians and agates, and the blue and also the white goods of Surat. Cinnamon and some spices from Batavia, and the bastard cinnamon and nutmeg from Malabar, are also procurable; but it is preferable to take on board the last-mentioned articles on the coast, if possible: where may be also had sandal-wood, cardamums, pepper (black and white).
Almost

Almost all the articles, the produce of the coast of Malabar, are essential to the China as well as the European markets, with the addition of sharks fins for China, which are much eaten and admired by the people of that country. We shall now subjoin a few articles, procurable on the western side of India, with instructions how to chuse them.

Cinnamon. The cinnamon, of our shops, is a thin bark, rolled up into small pipes, from the thickness of a goose-quill to that of a man's thumb, and of various lengths, the bark itself is also of different degrees of thickness; but commonly about as thick as a shilling. Its surface is tolerably smooth, but not glossy: its texture is fibrous and moderately firm: it easily breaks, and is not heavy. Its colour is brown with a mixture of red: it is of an extremely fragrant aromatic smell, and of a pungent but very agreeable taste; that which is small is generally reckoned preferable to the larger kind, and the long pipes are esteemed more valuable than the short; such as are very thick and cracked on the outside are seldom good. The Dutch having formerly monopolised this article, together with mace, cloves, and nutmegs, it was hazardous to purchase them in India.

The greatest deceits practised in the sale of cinnamon are, selling such as has by distillation lost its essential oil, and substituting cassia-lignea for cinnamon. The first of these deceptions is discovered by want of pungency in the cinnamon; the second, by the cassia becoming mucilaginous when held a little time in the mouth, which the true cinnamon never does. When the pipes, which have been divested of their fragrant oil by distillation, are laid for some time among good cinnamon, they reassume their virtues, which at the same time are lost by the good cinnamon, in proportion as they are imparted to the bad; so that the one cannot be distinguished from the other without examining every pipe; but as this would be an immense labour, the purchaser should be careful that the person with whom

whom he deals be thoroughly honest. Our cinnamon is the interior or second bark of the tree which produces it. The people who collect it take off the two barks together, and immediately separating the outer one, (which is rough and has little fragrance), they lay the other to dry in the shade, in an airy place, where it rolls itself up in a tubular form.

Storax. Solid storax is the odoriferous resin of a middle-sized tree, bearing a filbert-like fruit, growing naturally in Asia. Two sorts of this resin are commonly distinguished; storax in the tear, and common storax, in larger masses: the former is not in separate tears, or but very rarely; it is generally in masses composed of whitish and pale reddish-brown tears, or having an uniform reddish-yellow or brownish appearance, being unctuous and soft like wax, and free from visible impurities; this is preferred to the common storax in large masses, considerably lighter and less compact than the preceding, and having a large admixture of woody matter like sawdust. Although the impurities of this kind of storax render it less valuable than the first-mentioned, yet it is not less useful, nor its medical qualities less potent after purification, by softening it with boiling water, and pressing it out from the fœces between warm iron plates, a process that is unnecessary with the former kind.

Affœtida is a fetid concrete juice of a large plant growing in Persia. When this plant has grown to a proper age and size, the root is bared of earth, screened from the sun by the leaves that have been pulled off, cut horizontally after some days, and again carefully screened; in a day or two the juice gradually rises and accumulates on the surface, whence it is collected, and the superficial part of the root that has become dry is cut off, that the remaining moisture may be extracted and collected in a similar manner. This juice, as it first issues from the root, is liquid and white like milk; it gradually acquires different degrees of consistency. It has a strong fetid smell
and

and a nauseous somewhat bitter biting taste; the stronger these are the better, as age diminishes both.

This drug is originally in small drops, but when packed it forms irregular masses, composed of little shining lumps or grains, which have the different shades of white, brown, red, or violet. It should be chosen clear, fresh, strong-scented, of a pale red colour, and variegated with a number of fine white tears. Its peculiar scent and taste will distinguish the genuine from the adulterated.

Galbanum is the produce of an ever-green plant, found in Persia, and brought to Bombay. When the plant is in the third or fourth year of its growth it exudes drops of galbanum at the joints. The Persians, to increase the produce, wound the main stem when the plant is arrived at this age, at a small distance above the root; the juice flows plentifully, and is collected for use.

Galbanum is a gummy, resinous, rather unctuous, substance; sometimes in the natural drops or tears, but more frequently in masses, composed of a number of these blended together. The drops, when perfect, approach near to a roundish or oblong figure; but they commonly lose their form in the masses: these are pale-coloured, semi-transparent, soft and tenacious. In the best specimens they appear composed of clear whitish tears, often intermixed with the stalks and seeds of the plant. When fresh and new, the masses and tears are white, and with age change to yellow or brown.

It is almost unnecessary to observe, that, when the tears can be procured, they are to be preferred to the masses or cakes. These tears should be fattish, moderately viscous, and glossy on the surface. Such as are too soft, of a dark-brown colour, and mixed with sticks or other foreign substances, are to be rejected. The best cakes are those of a light yellow colour, of a strong, piercing, and, to most persons, a disagreeable smell; of a bitterish warm taste, not very
humid

humid nor yet quite dry, being of a nature between a gum and a resin, flaming in the fire, and with difficulty dissolved in oil. The less dirt, chips, stalks, or other impurities, the better. A mixture of two parts of rectified spirit, and one of water, will best shew its quality, by dissolving all the pure galbanum, and leaving the impurities.

When its foulness renders it of little value, it is best purified by inclosing it in a bladder, and keeping it in boiling water till it melts or becomes soft enough to be strained by pressure through a hempen cloth. If this process be skilfully managed, the galbanum loses but little of the essential oil, some of which is generally carried off in evaporation.

Balsam of Mecca, or Balm of Gilead. A resinous juice that distils from a tree growing between Medina and Mecca. It is much used by the Asiatic ladies as a cosmetic. The tree is scarce; and the liquor which issues from it smells like turpentine, but more sweet and pleasant. That which drops from old trees is thicker than that produced by young ones, but their effects are the same. When the liquor is not clear and transparent, it is not uncommonly owing to the vessels that have contained it, the balsam being no worse in point of quality. This commodity is very liable to adulteration; and the following method is recommended to discover the imposition:

Cause a drop or two of the liquid balsam to fall into a glass of clear water: if the drop go to the bottom, without rising again to the surface, or if it continue in a drop, like oil, it is a proof that the balsam is adulterated. If, on the contrary, it spreads upon the surface of the water like a very thin cobweb, scarcely visible to the eye, and, being congealed, may be taken up with a pin or small straw, the balsam is pure and natural.

Other modes of trial are likewise practised. If the pure balsam

be dropped on woollen, it will wash out; if adulterated, it sticks to the place. The genuine, dropped into milk, coagulates it, which the spurious will not. When a drop of the pure balsam is let fall on red-hot iron, it gathers itself into a globule, whereas oil or spurious balsam runs and sheds itself all around. The genuine balsam also feels viscid and adhesive to the fingers, which the adulterated does not. If sophisticated with wax, it is discovered by the turbid colour, never to be clarified: if with honey, the sweet taste betrays it: if with resin, by dropping it on live coals, it yields a blacker flame, and of a grosser substance, than the genuine.

When the balsam is too thick to be taken out of the bottle, it need only be placed near the fire, the smallest degree of heat easily liquifying it. The bottles must not be quite full, lest they should break, as this liquor is apt to rarefy.

Balsamum is the Latin name of the tree whence the balsam issues: opo-balsamum is the juice which distils from the tree, that is, the balsam; carpo-balsamum is the fruit; and xylo-balsamum is the wood. These are all useful.

Carpo-balsamum should be chosen fresh, plump, ponderous, of a hot biting taste, and smelling, in some moderate degree, like the balsam. Hypericum is sometimes mixed with it; which may be discovered by its excess in size, its vacuity, want of virtue, and peppery taste.

Xylo-balsamum ought to be in small knotty rods, the rind red, the wood white, resinous, and having a scent somewhat like the balsam.

Sandal-Wood is of three sorts, yellow, white, and red. The yellow is a beautiful wood, of a close texture and fine grain. It is usually in blocks, formed from the heart of the tree, and cleaned from the investing bark. Its colour is a pale yellow; and it is of an extremely sweet-perfumed smell, somewhat like a mixture of musk and roses. It has an aromatic taste, somewhat bitter, and agreeably pungent.

These

These qualities, joined with soundness, are the characters of its goodness.

The white is a wood much resembling the former, and is either in long slender pieces or in chips. It is of a light colour, with a fragrant smell and taste; but far weaker than the yellow in all its qualities.

The red is very different, in colour and quality, from either of the preceding. It is commonly in blocks of a considerable length, which appear to be the heart of the tree that produces it, separated from the soft outer wood and bark. It is of a dark red colour externally, and of a fine blood-red within. Its taste is very inconsiderable, and rather austere. Its smell is very trifling, and without any perfume like the other kinds.

Cardamomum, or *Cardamum*. There are three sorts of cardamoms, the largest, the middle-sized, and the smallest. Of these the two latter sorts only come from the East-Indies, the first being the common seed of paradise, which comes from the coast of Africa, and is externally like the others, but particularly distinguishable by its hot peppery taste. The second sort grows in the kingdom of Java: the pods are long, rather triangular than round, full of cornered, reddish-brown, hot, aromatic grains. The third sort (which is that commonly in use) is gathered in the kingdom of Cananor, in the Malabar country. The pods, which grow on short stalks, are triangular, tough, of a light-grey colour, a little striped, containing several angular, brown, small grains, of a hot, spicy, aromatic taste, and pleasant smell.

Cardamoms should be chosen full, close, and difficult to be broken: those which have not these properties are stale and decayed. They should also have a piercing smell, with an acrid bitterish taste, and should be well dried, sound, and large. The best package is a strong sound chest, properly secured from damp, the least greatly reducing their value.

A P L A N,

FOR A VOYAGE FROM BOMBAY OR SURAT TO CHINA.

THIS being so well known, that it requires little from my pen to elucidate it; but as I have spoken upon most other speculations, I think it will be expected I should say something upon it, though it is well known to every speculatist on the west side of India Proper.

The principal part of the cargo of a ship, bound from Bombay or Surat to China, consists of cotton (wool); for the conveying of large quantities of which commodity they have the largest ships that are built in India, and peculiarly adapted for the stowage of such a gruff article. The commanders and officers are the completest stevedores of this peculiar cargo I have ever met with, and so exceedingly quick and clever at it, that they will stow and screw from sixty to eighty tons of it in a ship's hold in one day; or from one hundred and twenty to one hundred and sixty bales, each bale containing from three hundred to five hundred weight: and by their superior mode of screwing this commodity, will put twelve hundred weight in the compass allowed for a merchant's ton (or forty cubic feet). Some of the large ships, belonging to Bombay and Surat, will carry upwards of four thousand bales, which will contain about two thousand five hundred Bombay candy, of five hundred and sixty pounds avoirdupois.

The other part of their cargo consists of sandal-wood and pepper, from the Malabar coast; gums, drugs, and pearls, from Arabia, Abyssinia, and Persia; elephants teeth, cornelians, and other produce of Cambay; sharks fins, birds nests, &c. &c. from the Maldiva and Lackadiva islands, (which lie extended opposite the Malabar coast, and at no great distance).

Ships generally load a full cargo of cotton from Bombay or Surat, including the above articles, which are only a secondary consideration; and endeavour to sail from Bombay about the middle or latter end of May or beginning of June, previous to the setting in of the S.W. monsoon, which invariably brings with it bad weather upon the Malabar coast, (which, for brevity sake, I will suppose to take in the whole extent, from Cape St. John's, at the entrance of the Gulf of Cambay, to Cape Comerin, at the entrance of the Gulf of Manara), which the ships should carefully avoid; as they are in general crank, unprepared for carrying sail, to work off a lee-shore, being very light, exposing a great deal of top-side (or top-hamper) to the gale, and not a sufficient hold of the water to make resistance to the gale; consequently, their drift must be great: and if not sufficiently stiff to carry sail, they must drive on shore. Out of many instances, this being a well known fact, I shall only mention two ships, viz. the *Lady Hughes*, which overfet, and was floated by the buoyance of her cotton (wool) cargo, until she drove on shore: and the *Hercules*, which drove on shore near Bancoot (Fort Victoria).

The ships which get away early in May soon get off the coast; and as their object is to get to Canton, and an early market, they lose no time, but generally all arrive in the month of June or the beginning of July, and lie there, with nothing to do, (but deliver their cargo, and take in their returning cargo,) until the month of December; indeed, many ships longer than even this time; and some do not leave Whampoa until February.

Such a detention as this must, unavoidably, make the expence of the voyage come much higher than it otherwise would, could it be so contrived to get the ship employed until the middle or latter end of August before she leaves the Straits of Malacca for China.

For this purpose I would propose the following Plan to the owners of those large ships, which, I conceive, would pay them well, and turn out to advantage.

The ships should be loaded as soon as possible, after being cleared at Bombay of their China cargo; and, I think, they may be able to sail in the early part of March: they should call at Madras, and deliver one, two, or three hundred bales of cotton, or more, if necessary, to be carried on freight to China, by the Company's coast and China ships; and which the commanders will be glad to take on board.

The freight has been so low at Madras as one pagoda per bale; and I never knew it higher than four pagodas per bale: probably the average two and a-half pagodas may be reckoned upon as a certain rule; and this is an easier freight than thirty to fifty (say the average forty) Bombay rupees per candy, the usual freight from Bombay to China.

It becomes now a quere, why should a ship sail so soon; or why break up her cargo; the expences, by sailing in June, and returning in January, becoming great enough not to expose her to larger charges of freight for goods she might carry herself, and more expence for wages and victualling her crew.

I will make my answer to these two queries as short as possible, and at the same time clear, to the undertaker of the speculation, by shewing him how his ship may be making a profitable advantage of the time thus complained of.

The owners of these large ships should have a smaller one (which I shall, if I have occasion to mention her in future, call her Tender) fitted out at Calcutta, to take up the Plan of the Voyage I have given to the Coast of Pedir; and instead of delivering her first cargo upon the Coromandel coast, meet the large ship at Madras, and tranship her first cargo, to fill part of the vacuum made by the delivery of the proposed cotton. The Tender, as soon as she is ready, sails again with a few bales of Guzerat chints, which are always a certain sale among the Malays, as they are fond of large flower patterns, and which the large ship should bring with her from Bombay, and
funds

funds to prepare her second cargo. The large ship may, in the mean time, run over to Prince of Wales Island (Pooloo Pinang), and wait the Tender's return; at the same time collecting as much tin and pepper as she has funds for, particularly tin, which being a heavy article, lying low, and taking little room, should be kept down in the bottom as ballast, which will prepare the ship better to encounter the probable gales she might meet with going through the China seas in the month of September. The Tender is to pursue the plan laid down for her, until after the sailing of the large ship; and then, as directed, prepare her cargo for Bengal: and follow the same plan for the following year.

The large ship being full from Pooloo Pinang, should proceed to China; and sail in all the month of November. Follow the Directions for a Passage to the westward of the Paracels, as being the quickest; where she will find a current setting to the southward, from fifty to seventy miles a day in her favour: and being furnished with Spanish dollars (from China), go directly into the Straits of Banca, where there is little doubt of her getting four thousand peculs of tin. She must then return through the Straits of Durian and Malacca, and finish her voyage at Bombay; where her tin, as well as her China investment, will find a ready sale for the Arabian, Persian, Abyffinian, Guzerat, and Cambay markets.

But suppose this Plan to be too extensive, and require too great a capital, I will endeavour to contract it, and suppose the Tender put out of the question.

Let the large ship take on board, instead of a few bales of cotton, a few bales of Guzerat chints and some Spanish dollars; and instead of going to Madras, proceed directly from Bombay to Pooloo Pinang; there, if possible, sell the greatest part of the chints (which, as I before observed, are always in demand) for Spanish dollars. If they do not sell at Pooloo Pinang, they will find a ready sale at Malacca. She should now use every dispatch to get to Banca, going through
the

the Straits of Durian; here she will sell the remainder of her chints to advantage, and buy what tin and pepper she can procure until the season for going on to Canton (as mentioned in my Plan of a Voyage from Calcutta to the Malay coast and the eastward). And following that Plan, should she find her Spanish dollars grow too short for her purchases, she may, by borrowing dollars from the Company's direct ships (from Europe to China), and delivering these ships a deposit in cotton for such loan, complete her cargo. This will clear the ship for the bad weather in the China seas, and give room for any pepper cargo she may be able to procure, either in the Straits of Banca or at Tringano.

Having got to Canton, she must again sail early and go to Banca, (a never-failing place for tin,) to procure some tin for her Bombay sales, as the former year.

These plans, I am confident, will turn to a profitable account, and pay well for the additional month or two which the ship may be employed (extra) upon these voyages, or either of them.

The new ceded country (the Myfore) is a no less beneficial one to the merchant trading to China, than to those merchants who drive a trade to Mocho, Judda, and other ports in the Arabian Gulf (or Red Sea), the Persian Gulf to Bufforah, and intermediate ports, and to the coast of Guadel and Gulf of Cambay, as it furnishes the principal goods in demand at all these markets; goods which never miss a sale, and make very advantageous returns to the speculator, particularly cardimums, pepper, and sandal-wood, which this rich and valuable country to commerce produces in the greatest abundance, and I may add inexhaustible quantities.

DIRECTIONS

FOR SAILING FROM BOMBAY TO SURAT.

BEING clear of the Prongs, and bound to the northward, you may keep along shore in six or seven fathoms; but do not come under that depth until you come to Mahim. You may anchor in Mahim-roads in five and a-half or six fathoms, soft mud; distance off shore two and a-half or three miles, with the fort bearing E. half N., the entrance of Mahim-river E. three-quarters N., a Portuguese church on a hill on the north side of the river E.N.E. half E., Versevoa fort N. half E., and Malabar-point S., in latitude $19^{\circ} 6' N.$, where the tide flows $12^h 30^m$ full and change.

Stand along shore in five or six fathoms, and do not come under that depth. Off Derawa there is a shoal that runs off about two miles and a-half from the shore. Derawa may be known by the point making very bluff, with a fort on the top of Derawa-hill, which is the northernmost point of Salfet island; its latitude $19^{\circ} 20' N.$, it is high water $12^h 56^m$ full and change. By keeping the same depth will carry you clear of all danger to Arnoll, which is a low flat island close to the main, and fortified all round. You will see many round towers with Mahratta flags flying on them. When you are abreast of it you must not come under six and a-half or seven fathoms, as there is a shoal of rocks off it that runs a long way out to seaward; its latitude is $19^{\circ} 34' N.$ and high water $1^h 15^m$ full and change.—Between Bombay and this place are a great number of fishing stakes, that are laid in from 5 to 10 or 11 fathoms, but no danger near them. Between Arnoll and Derawa you will see a very deep bay,
with

with a large town at the bottom of it, which is Basseen town and river, belonging also to the Mahrattas.

You must now keep out in seven fathoms, as under that depth the ground is foul, and bad anchorage, until you bring Panrapore-hill N.E. by E.; then haul off, and deepen to 11 fathoms, and not come under that depth, or you will find rocky ground. Stand on to the northward of Tarrapore, or until Tarrapore-fort is on with Valentine's-hill: when they are in one they bear E. by N. one-quarter N. Hereabout you will shoal suddenly from nine to six fathoms, or probably next cast to three or only two fathoms, and you must pay attention to the lead. If you keep out in 11 fathoms, you will find the ground soft and even, but under that depth hard. If bound into Tarrapore, anchor in 10 fathoms and a-half, the fort bearing E., Valentine's-peak E. by N., Tarrapore-peak S.E. half E., the body of the high land over St. John's N.E. half E., distance off shore four or five miles; its latitude is $19^{\circ} 44' N.$ High water here full and change $1^h 36^m$.

Note. Valentine's-peak is a small hill in land, and forms like a small pyramid, (with no other hill like it), by which it may be easily known.

From Tarrapore, you should not come under 10 or 11 fathoms, and ought to deepen to 15 or 16 fathoms before you bring the high mountains over Cape St. John's to bear E.N.E. The body of the Cape is very low, and can scarcely be seen in 16 or 17 fathoms, therefore you must set the body of the high land over it. Whenever you bring it to bear E.N.E. you are then entering abreast of the foul ground off the south point of a very dangerous rocky shoal, with overfalls from five to seven fathoms at a cast of the lead. If you keep out in 16 or 17 fathoms, until you bring the body of the high land over St. John's to bear E.S.E. southerly, you are then clear to the northward of the shoal off St. John's, the latitude of which is $20^{\circ} 1' N.$, and high water full and change off the Cape

2^h 15^m. Should the wind be against you when abreast of the foul ground off the Cape, and you are working with the tide in your favour, do not stand nearer than 14 fathoms towards the Cape. Should the tide be done, and you are obliged to anchor, come to in 16 or 17 fathoms; you will in that depth have good anchorage; but under that depth there are many spots of hard ground, and you are liable to chafe your cables. When the high land over Cape St. John's bears E. by N. do not stand further off shore than 20 or 21 fathoms, as you will have from 22 fathoms, soft, to eight and perhaps only three fathoms, hard sand, on the south end of the Malacca-bank; and as you get to the northward, do not stand off so far.

When you are to the northward of the foul ground off Cape St. John's, you will then shoal your water gradually from 16 to 17 fathoms, to 12 or 8 fathoms, soft mud. You now stand towards Damaun, which is a Portuguese settlement to the northward of St. John's; you will easily know it by the churches and town, which in general are white; it is in latitude 20° 30' N., and high water full and change 2^h 30^m. A little in land are three hills near together, which are at the back of Damaun town; from hence you may stand along shore in seven or eight fathoms, fine soft mud, and will see, to the northward of Damaun, a round high hill, with a fort on the top of it, which stands in a plain by itself, having no other hill near it; at first sight it appears like the crown of a hat. This is called Panula-hill, off which it is high water full and change 3^h. Hereabout you may stand off shore towards the land to 15 and 16 fathoms, but not farther. When Panula-hill bears from E. by N. to E. by S. coming either from the northward or southward, and bringing either of these two bearings on, you will shoal your water very fast, and from soft to hard ground, on a bank that runs across the channel from the shore to the sands, but no danger. Should you shoal to six fathoms, haul to the westward, and if off shore in 16 or 17 fathoms, haul in, and shoal to 10 fathoms, then
you

you will deepen your water as you stand either to the northward or southward. Do not be alarmed in the night when you shoal hereabouts, as the soundings in general are very regular, excepting this spot. When you have sight of the ships in Surat-roads, do not stand further off than 11 or 12 fathoms. As you near the roads with a working wind, do not stand off to more than 11 fathoms, and into seven fathoms towards the shore, but no nearer either way. The Malacca-bank is a very dangerous shoal; some parts of it are dry at low water spring tides, therefore do not make too free with it. This bank extends from off Cape St. John's a long way to the northward of Surat; the water is deep near it, and shoalens very suddenly from 18 fathoms, soft, to two fathoms, hard sand. You may anchor in any depth you please in Surat-roads. The best birth is Vaux's (or Piere's) Tomb N. half W., Domas-tree N.E. by N., Nossarrec-point S.E. one-quarter E., in nine fathoms, off shore three miles. The latitude of the roads is $21^{\circ} 5' N.$, and high water on full and change days $4^h 20^m$. The tide in the springs runs at the rate of three or four knots, from Bombay to Surat. You will find the tides very strong as you get to the northward, particularly off the foul ground of St. John's it runs in general six knots each way; however the ebb runs longest, sometimes seven hours, and the flood only five hours; therefore take care, by observing either by the lead or the land; and anchor when you find the tide against you.

DIRECTIONS

FOR NAVIGATING THE GULF OF CAMBAY.

FROM Surat to the northward, keep in 10 or 13 fathoms water, three or four miles from the shore, which will carry you between the inner and outer sands off Swalley; the outer are six miles from the shore, and the inner one mile and a-half; both which are dry at low water spring tides. When Cutcherre-tree bears E. by N., which is known by a large single brab-tree on a low point, keep out W. by N. until you have the following bearings on; Donda E. by N., Cutcherre-tree E. by S. one-quarter S.; then you are clear of Goolwaller-sand to the westward; soundings from 10 to 14 fathoms: steer N. by W., which will carry you safe into Baroch-roads, from 14 to 8 fathoms, where you may safely anchor, with the following bearings: Baroch-point N. by E. one-quarter E., Catchajal S.E., Peram Island W. one-quarter N., distance from the point four or five miles, in six fathoms at low water. The bar lies in latitude $21^{\circ} 33' N.$, high water on full and change days thirty minutes past four o'clock, ebbs and flows five fathoms perpendicular, and runs six knots per hour.

To the southward of the bar is Baroch-sand, which lies north and south: it is three-quarters of a mile long, one and a-half broad, and within 30 yards of either side from two to three fathoms deep. Between it and the inner sand (which runs from the shore five miles, and continues as far to the southward as Jannier, the breadth decreasing, and dry at low water spring tides) is a good channel to the bar, from seven to three fathoms water, and one mile and a-half

broad: the mark for it is Peram Island W.N.W.; steer in with it until Baroch-point is N. by W. one-quarter W., then haul up for it, until you have Peram Island W. one-quarter N. which will carry you abreast of the bar in three or four fathoms, at half a mile distance.

There are two sands off Bogway, called Goolwaller and Bogway, which are dry at low water spring tides. The former lies north and south, and is four miles and a-quarter long, half a mile broad, and lies off shore from Donda six miles and a-half: the latter lies N. by W. and S. by E., is five miles and a-half long, one mile and a-quarter broad at the north end, and at the south end two miles and a-quarter broad, its distance from the shore two miles and a-quarter; and within 20 or 30 yards of each sand are three and four fathoms water. Between these sands is a good channel to sail or work through in the day-time, but excessively dangerous in the night, for you cannot depend upon your soundings; therefore in the night I would advise you to go to the westward of Goolwaller. The channel between the sands is from two miles to two and a-half broad, and the soundings from five to nine fathoms.

From Baroch to Jumbasier keep within three miles of the shore, in seven or eight fathoms at low water; and in working, do not stand at any time more than two leagues off, keeping in from 8 to 10 fathoms, because the tide runs so very rapid, that in case of its falling little wind you would meet with great difficulty in getting in shore again. From the shore a flat runs off one and a-half or two miles, dry at low water spring tides, and continues from Jumbasier to Dugum (to the northward of Jumbasier); it runs in some places four or five miles from the shore: close to it are from four to seven fathoms water.

Jumbasier-road lies in latitude $21^{\circ} 49'$ N., known by a pagoda on the north side of the river, called Dieu. The mark for anchoring is the aforesaid pagoda N.E. by E. half E., Jumbasier-point E. by N. in seven fathoms low water: the dry part of the flat, half a mile distant,
and

and from the pagoda four or five miles. With the aforesaid bearings you will have very little tide, and lie with great safety, the north part of the flat breaking the strength of the tide. It is high water on full and change 48^m past four o'clock; ebbs and flows six feet. This is a great place of trade for cotton, grain, and oil.

The distance between Jumbasier and Gonway is six leagues, with a channel one mile and three-quarters broad, but very dangerous, the tides running with such amazing velocity (soundings from seven to two fathoms) first quarter flood. In going, keep within a quarter of a mile of the flat, in two, three, or four fathoms, until you have brought a small cluster of trees East, then haul in for the shore, keeping within 200 yards of it, up to Gongway-road; and when abreast of the town you may safely anchor, about 20 yards from high water mark, when you will ground at first quarter ebb.—It is dry over the bay from the latitude $22^{\circ} 3' N.$ to Cambay, at low water, spring tides. No vessels attempt to go above Gongway, in a tide from Jumbasier, as it is attended with bad consequences; for if they cannot get into Cambay Creek they must return to Gongway. High water at Gongway a-quarter past five o'clock, full and change. It is five leagues from Gongway to Cambay, which lies in the latitude $22^{\circ} 24' N.$ At first quarter flood they always weigh and stand over, keeping the pagoda at Cambay bearing N. by E. three-quarters E. and in working, keep it from N. by W. to N.E. by N.; the soundings are from two to four fathoms. You must keep the shore close on board until you are to the northward of Dagum, meeting with great overfalls, and the tide running so rapid that if the vessel should take the ground she must overset immediately, and in all probability every soul on board perish, which often happens through the neglect and obstinacy of the pilot.

N. B. The tide sets N.E. and S.W.

From Surat to Gogo keep (as mentioned in the Remarks) from Surat to the northward, until you get clear of the Goolwaller-sand

to

to the westward; then steer over for the island of Peram, keeping to the eastward in 14 or 15 fathoms to clear the reefs that run off, it being very dangerous and environed with rocks and shoals. When it bears S.W. steer N.N.W. (soundings from 11 to 9 fathoms) until you get the following bearings on: the body of Peram S. by E. one-quarter E., Hourah-point S.S.W., Gogo-point W.N.W.; then haul up for the body of Gogo-town, which will carry you clear of Gogofand. Soundings from 10 to 3 fathoms. When the following bearings are on, you may anchor with great safety: Gogo-point W. by S., Hourah-point S. by E. one-quarter E., the house on Peram S.S.E. three-quarters E., distance from the shore half a mile, in three fathoms at low water. The town lies in latitude $21^{\circ} 44' N$. It is a safe roadstead in the S.W. monsoon, where vessels may run to, in case of parting from their anchors in Surat-roads, it being an entire bed of mud for three-quarters of a mile from the shore, and always smooth water. Ships may here get supplied with stores and provisions, and repair any damages they may have sustained. The natives, who are principally Moors, build ships and vessels from 50 to 300 tons burthen.

DIRECTIONS

FOR THE STRAITS OF BABELMANDEL AND MOCHA-ROADS.

WHEN you make Cape Babelmandel you will see the openings and inlets appearing like the straits, being deep bays. Steer for Babelmandel island until within a-quarter of a mile of it. Your soundings will be from 28 to 23 fathoms: when entered the Straits, your soundings will be from 21 to 10 fathoms, and will again deepen as you run through to 36 fathoms; your course will be nearly S.W.

Note. There is a bank nearly in the middle of the Straits with six fathoms on it, and off the north end only two fathoms on it.

From the Straits of Babelmandel to Mocha, the course is N.N.W. 14 or 15 leagues. Keep in soundings from 14 to 18 fathoms. The land along the sea-side is low, but inland is mountainous. The approach to the town is known by a row of date trees, about two leagues in length, a little to the southward of Mocha. There are no other trees to be seen along the coast, as it appears very barren. Come no nearer than 14 fathoms, in order to avoid a dangerous bank which encompasses the road on the S.W. side; it is steep to. From 10 fathoms you will be suddenly in two fathoms. The Success galley in rounding the sand-head had 13 fathoms, soft ground, and next cast had only three fathoms, hard sand. When you bring the Grand Mosque to bear E. by S. half S. you may haul round the shoal and bring the Grand Mosque to bear E.S.E., when you may haul up for the roads, and anchor in any depth from seven to six fathoms, the Grand Mosque E. by S. or E.S.E., the North Fort S.E. by E., and the South Fort S. by E., off shore two and a half or two miles.

DIRECTIONS

FOR SAILING UP THE RED SEA TO SUEZ.

N.W. by N., distance about 16 leagues from Mocha, lies the island of Jebbel Zeker, in latitude 14° N. Off its north end lie three small islands of a tolerable height, and when in one with each other they bear W. by N. one-quarter N.; the easternmost side appears to be steep and clear of danger, bearing N. 30° W., and distance 18 leagues from Mocha-roads. There are likewise several small islands off the south end of the above island, the largest of which may be seen from Mocha-roads.

N.N.E. six and a-half or seven leagues from the north end of Jebbel Zeker lies a shoal of sand with only two fathoms and a-half water on its shoalest part, but it has 17 fathoms close to the westernmost side of it.

N. 28° W., distance 28 leagues from the easternmost of the small islands, to the northward of Jebbel Zeker, lies the largest and easternmost of the Sabagar Islands, in latitude $15^{\circ} 2'$ N. To the N.W. by N. of it are a number of small islands of a tolerable height, and appears to be clear of danger.

N.W. by N. distance 13 or 14 leagues from the Sabagar Islands lies the island Jebbel Torr, in latitude $15^{\circ} 35'$ N., and $1^{\circ} 20'$ W. meridian distance from Mocha; this island is clear of dangers, and may be seen seven or eight leagues. W. by S., distance eight leagues from Jebbel Torr, lies a shoal, whereon a French ship struck and had nearly been lost.

Note. From Jebbel Torr all vessels bound to Judda take their departure; which passage is so well known, that I shall only give an account of some discoveries lately made.

In latitude $18^{\circ} 46'$ N. and $2^{\circ} 35'$ W. of Jebbel Torr is a shoal whereon the sea breaks.

In latitude $20^{\circ} 50'$ N. and $3^{\circ} 46'$ W. from Jebbel Torr, lies Point Hamer, which may be seen seven or eight leagues off. Five miles to the eastward of this point is an island near as big as Jebbel Torr, making like a gunner's quoin when it bears W.S.W. half S. distance five leagues. N. by E. one-quarter E. distance six leagues from the above point, lies Cape Calmer, in latitude $21^{\circ} 7'$ N. meridian distance from Jebbel Torr $3^{\circ} 44'$ W., with a reef of rocks stretching five miles from it. And S.E. half S. distance four leagues from Calmer, lies a shoal of coral rocks, whereon the sea breaks; this is the easternmost shoal off shore, and lies about mid-channel over. To the westward of this shoal are two low islands, and within them two large shoals of rocks whereon the sea breaks, all of which are laid down in the charts.

Note. When you make Cape Calmer and Point Hamer they appear like two separate islands, the land between them being low and forms a bay.

All ships that have made this Cape have made it sooner than they expected by 9 or 10 leagues, and imputed it to the current setting them to the westward, which is a mistake; for when the chart of this sea was made, the general method of marking the log-line was 42 feet to a knot, and 28 seconds to the glass: and the present method is from 46 feet to eight fathoms to a knot, and the same glass, which makes a difference of nine miles in a hundred.

Note. As the southerly winds seldom reach farther than the latitude of 20° N. and between the latitude of $19^{\circ} 30'$ and 21° the winds are mostly variable, with calms and light airs, I would advise all strangers bound up to Suez, should the wind be northerly, to stand to the westward in the day time, and endeavour to make the land about Cape Calmer, or in latitude $21^{\circ} 30'$ N., and not to go to the northward of Cape Adhat without taking a fresh departure, as you will see all the places in the day time before you are near any danger, particularly

particularly the high land of Adhat, which may be seen 10 or 12 leagues distance. After you have made the land, I would advise you to keep near the mid-channel, and particularly to avoid the eastern shore, near which are a number of small islands and shoals, some lying a great way off. It is most adviseable, whether you have a fair or foul wind, to have a sight of either shore before dark, that you may know how to steer or stand on each tack; and by no means to stand to the westward of the Parallel of St. John's island until you are to the northward of it, as there is a deep bay between it and Cape Adhat wherein are a number of shoals, the situation of which are not yet known. It is necessary a good look-out should be kept, but particularly in the night time, as you have no soundings 80 or 90 fathoms near any of these shoals, some of which lie directly in your track. In latitude $21^{\circ}30'$, and $4^{\circ}4' W.$ from Jebbel Torr, is a remarkable hill, resembling a fort at the top, (which I call Fort Hill); it stands near the sea. Between it and Cape Calmer is a deep bay, the land at the bottom of which is low. E.S.E. five miles from this hill is a rock above water somewhat like a buoy; and two miles to the eastward of it is a shoal with breakers (seen in the Betsy). N.E. by E. distance seven miles from Fort Hill, are two shoals (seen in the Terrible): there are no soundings near any of those shoals. Cape Adhat lies in latitude $22^{\circ}11' N.$ and $4^{\circ}50' W.$ from Jebbel Torr; and 13 leagues to the westward of Cape Calmer lies the Island of St. John's, known by a high peak on the south end, which may be seen 10 or 11 leagues off: the true course made from Cape Adhat to this island, was N. by W. three-quarters W., distance 33 or 34 leagues. In latitude $24^{\circ}5' N.$ and six leagues W. of St. John's, lies Emerald Island, which may be seen seven leagues off, lying two leagues and a-half east of Cape Nose.

In latitude $24^{\circ}22' N.$, and two miles to the westward of Emerald Island, are three small shoals at a little distance from each other, lying six leagues off shore (seen in the Terrible). In latitude $24^{\circ}54' N.$, and two or three miles East of St. John's, is a shoal of white coral

breakers, lying S.E. by E. and N.W. by W., in breadth a quarter of a mile. In latitude $25^{\circ} 8' N.$ is another shoal of breakers, seen in the *Terrible*, on her passage to Suez; she made 30 miles meridian distance from Emerald Island. These shoals lie nearly N.E. and S.W. of each other, and make this part dangerous to pass in the night. In latitude $26^{\circ} 16' N.$ and $1^{\circ} 2' W.$ of St. John's, lie two small low islands called The Brothers; they appear to be clear of danger, but cannot be seen further than seven or eight miles; the northernmost is about half a mile, and the southernmost a quarter of a mile long, and they lie eight or nine leagues off the western shore. The southernmost of the Jefferanna Islands lies in latitude $27^{\circ} 6' N.$, distance two leagues off the Egyptian shore; the northernmost is in latitude $27^{\circ} 14' N.$, and they may be all seen at four or five leagues distance. There is no danger to the southward and eastward of them.

In latitude $27^{\circ} 28' N.$, and 13 leagues to the westward of the Two Brothers, lies the island Shadwan, which is steep to on the east side, having no soundings, with 120 fathoms of line, at three-quarters of a mile distance. This island is high, and may be seen 10 leagues off. Between this and The Brothers the passage is clear, having no shoals but what are near the shore.

In latitude $27^{\circ} 44' N.$ and three leagues to the eastward of Cape Rofs Mahomed, lies the island Tyrone; it bears N.E. by E. from Shadwan, distance nine leagues and a-half: this island is high in the middle, slopes gradually towards each end of it, and may be seen 11 leagues off. In latitude $27^{\circ} 41' N.$ lies Cape Rofs Mahomed; its extreme point is very low and cannot be seen further off than five miles: but a little way from this cape is a chain of high mountains, extending as far to the northward as Mount Sinai, which are generally set for the Cape itself, and are a good mark for Shadwan Island, as you will see them in latitude $26^{\circ} 50' N.$ bearing N. by W. or N. by W. half W.; the low point bears from Shadwan Island N.E. half E., distance six leagues and a-half. Five miles to the westward
of

of this Cape lies a large shoal, with a rock above water on its south end, and by the pilots is called Beacon Rock; it bears from the N.W. end of Shadwan Island N.E. by E., distance 17 leagues. Between this rock and the Cape is good anchorage. From Cape Ross Mahomed, as far up as Torr on the eastern shore, are a number of shoals, some extending more than mid-channel over. Ships that have met with a pilot have gone through them; but I would advise all strangers to go to the westward of them, where there is a good and safe passage about seven miles broad. But before I proceed, it is necessary you should be acquainted with the distances and bearings per compass of the islands and westernmost shoals. N. 25° W., distance five leagues from Shadwan, lies the island Jubell in latitude $27^{\circ} 41' N.$ which is both high and steep to, having 15 fathoms water within half a cable's length of its east end. One mile to the northward of this island is another island lying E. and W.; the easternmost part of this island bears from the S.E. or easternmost part of Shadwan N. 31° W., distance 17 leagues. This island has always been set for the north part of Jubell, and has no danger at a cable's length from its east end. From this island I took the true bearing and distance of Shadwan and the islands adjacent. It flows $8^h 30^m$ at full and change, and the tides rise six feet perpendicular.

The N.E. part of Shadwan (real), bears from the east end of this island, which I call Fair Island, N. 29° W. distance 19 miles; between which are several low islands, which have been taken for reefs of rocks; they are about two or three feet above the surface at high water; for their situation, I refer you to the chart. N.E. distance eight miles from the island Jubell, and seven miles from the east end of Fair Island, lies the south end of the westernmost shoal, on which is a large rock that is nearly covered in high spring tides; it bears from the S.E. part of Shadwan Island N. three-quarters W. six leagues and a-half; and from the N.E. of Reat, S.E. one-quarter E. distance 19 miles under the lee of this shoal, there is good anchorage from 18

to 20 fathoms (with the wind northerly). The rock, when in one with Mount Agarib, bears N.W. by W. a little westerly; this is called Carrangar Shoal. The highest part of the peninsula of Reat lies in latitude 28° N., and is close to the sea-side; this is called the N.E. part. The land between this and the south end, which is of a tolerable height, is lower, and forms a bight, over which you will see Mount Agarib, which is here given as a mark through the channel: that which is generally set as the north part of Reat lies in latitude $28^{\circ} 4'$ N.; and N.W. by W., distance seven miles from it, is a small bluff, in latitude $28^{\circ} 10'$ N. Between this and the north part of Reat abovementioned, the land is low, and forms a bay, which has made many people take Reat to be an island.

TO SAIL THROUGH THE WEST CHANNEL.

Being two or three miles off Shadwan and abreast of the easternmost part of it, you will see the N.E. part of Reat bearing N.W. half W. or N.W. one-quarter W.; you may then steer N.N.W. or N. N.W. one-quarter W., so as to pass Jubell and Fair Island at the same distance. And when you bring Jubell to bear S.W. one-half W. or S.W., you will have soundings at 40 or 48 fathoms, which depth you will shoalen as you go to the northward to 17 or 15 fathoms regular soundings, and then deepen again to 35 or 40 fathoms. And when that which is called the south part of Reat bears W. half N., you are past the Carrangar Shoal. And when the south part of Reat bears W.N.W. you will see the low land and islands that are between Jubell and Reat abreast of you; from which runs a shoal, with about seven fathoms water on its outer part: this shoal does not run out so far as to bring the S.E. part of Shadwan and N.E. part of Reat in one. When you are past the Carrangar Shoal the channel becomes wider.

N. half

N. half E. distance three and a-half or four leagues from the high land of Reat, is a bank of coral rocks and sand, lying N. by W. half W. and S. by E. half E., about two leagues in length; it has 18 fathoms sand on its south end; and about a mile further to the northward are five fathoms, rocks; the north end shoalens gradually from 26 to 8 fathoms, sandy ground. On both sides of this bank the foundings are black sand, the water shoalens gradually as you approach it. And when Mount Agarib is just open to the northward of the bluff point, in latitude $28^{\circ} 10' N.$, bearing W. by N. one-quarter N., you are then on the shoalest part. A good mark for going through the channel is, to keep Mount Agarib open to the westward of the high land of Reat, bearing N.W. three-quarters W., for when it bears N.W. by W. westerly, it is in one with the Carrangar Shoals, and just on with the high land of Reat.

N.E. from the high land of Reat, in latitude $28^{\circ} 14' N.$ lies the town of Torr, where there is a safe and good harbour, formed by a spit of sand running from the north part of Torr Bay. On the point of the spit is a beacon, whereon a light is kept in the night time when any ships are seen in the offing. It is a good mark to run into the harbour by. Cape Jahan lies in latitude $28^{\circ} 34' N.$, and bears from the body of the high land of Reat N. $1^{\circ} W.$, distance 11 leagues and a-half. N.W. from this Cape, and one league distance, is a shoal, with four fathoms water on it. When you are abreast of Cape Jahan you will see a bluff point, (which is often mistaken for Hammum Point,) but lies five miles to the southward of it. The land between them is very low towards the sea, which makes it appear like a bay. The course from Cape Jahan to the Hammum Point, which lies in latitude $29^{\circ} 14' N.$, is N. by W. one-quarter W., distance 14 leagues; this is a low point but clear of danger.

In latitude $28^{\circ} 42' N.$ on the Arabian shore, lies a large shoal partly dry; the outermost discoloured water upon it, bears from Hammum bluff point South:

Zephatama Point is very low, lying in 29° N., and bears from Cape Jahan N. 23° W., distance 13 leagues. A little above this point, in latitude $29^{\circ} 3'$ N., lies a shoal of rocks, stretching from the western shore about two miles and a-half; the outer part bears from Hammum bluff point W. half S.

N. half W. from Hammum low point lies another point, called Muln Hammil Point, in latitude $29^{\circ} 26'$ N.—From this point runs a shoal, about one mile in length, and is dry at low water. On approaching this point you will shoalen your water gradually from 30 to 10 fathoms, but only for a short distance.

In latitude $29^{\circ} 47'$ N. lies the south point of Simon's Bay, off which runs a small shoal. This point bears from Hammum low point N. 8° W., distance 11 leagues. Two miles to the southward of this point is a shoal, running W.S.W. (distance one mile and a-half off shore.) In latitude $29^{\circ} 50'$ N., on the western shore, lies Agada Point, which is low, and has a shoal stretching off it three-quarters of a mile. Near this point the land is very high, and when first seen, at the distance of six or seven leagues, it appears like a neat's tongue, and bears from Hammum Point N. 15° W., distance 12 leagues.—Between Agada Point and the low land of Abdorage is a deep bay, with low land to the southward.

Nebah is a low point in latitude $29^{\circ} 55'$ N., and has a shoal running off it about three-quarters of a mile, the greatest part of which is dry at low water. Just above this point is Suez harbour, wherein you may anchor from four to six fathoms abreast the entrance of the river. Between the point and that before mentioned, in latitude $29^{\circ} 46'$ N. is a deep bay, called Simon's Bay, the land in the upper part of which is very flat, and the water shoalens from two miles below Nebah Point. Working into Suez Harbour, be careful of a shoal that lies nearly West from Nebah Point, distance two miles and a-quarter, and bears from the easternmost part of Suez town S. 43° W. distance three miles and a-half.

Note. There is a good channel to the westward of it.

SOME ACCOUNT OF MOCHO AND JUDDA, AND THE TRADE.

Mocho, the first city we meet with in the Red Sea where European ships call at for the purpose of trade, is tolerably large, and exceedingly populous; the principal part of the inhabitants are Mahomedans; but there are a great many Jews, which live in the suburbs, some few Armenians and Persees, all of whom are obliged to comply with the customs of the Mahomedans; and they find such compliances convenient and profitable; as they reap great advantage from the lucrative trade they carry on from hence to most (indeed I may say all) parts of India.

The streets are tolerably large, the houses are built of brick or stone, consisting of two stories, with terraced roofs; the shops are particularly adapted to (and built for) trade, and are well filled with all sorts of commodities, both of Europe and India.

The harbour of Mocho is formed by two points (or slips) of land, (on each of which is a fortification,) about three miles from each other.

The most considerable trade they have is coffee, which is cultivated at Beetlesackie, and allowed to be the finest in the world; large quantities of this wholesome berry are taken into Turkey by the caravans which come from thence to Mecca, and in return, as well as this, take back all the spices and manufactures of the whole eastern world; many of which find their way into Europe by this circuitous rout; and hence this grateful berry, with us, gets the name of Turkey Coffee.

Having said thus much of the berry, it may not be considered irrelevant to this work to add here some account of the coffee plant, and the manner that the Arabs cultivate it; particularly so, as it is in

universal use at home, and general cultivation in our West India plantations.

The coffee plant grows to the height of about eight or nine feet, (not much unlike our white-thorn bush,) the twigs grow in pairs, opposite to each other; the leaves grow in the same manner (opposite to each other in pairs also) and about two inches asunder, each pair from the other; both above and below, the leaves are about four inches long, and in the middle (being the widest part) are about two inches broad; from whence they decrease to the extremities, and end in a point; they are not unlike the bay-leaf, but neither so stiff, crisp, or thick.

The plant, as I observed before, is much like our white-thorn, with a grey smooth bark, the wood white, and very little pith.—The fruit hangs on the twigs, sometimes one, two, or more together.

These plants are watered by artificial channels, and after three or four years bearing the natives plant new ones, as the old begin to decline about this period.

The berry is dried in the sun, after being carefully gathered from the shrub, and the husk is afterward taken off by handmills.

In the hot season the natives use these husks instead of the coffee berry, and esteem the liquor impregnated with them more cooling and more refreshing than that prepared from the berry.

BEETLEFACKIE.

Coin, or Money.

40 caveers are 1 Spanish dollar.

Weights.

Weights.

15 vakia are 1 rattle.

29 vakia are 1 maund.

1 maund weighs 2lb. 10dwts. 23grs. 4decim.

10 maunds are 1 frazil, 20lbs. 6oz. 4dwts. avoirdupois.

40 frazils are 1 bahar, 814 to 816lbs. avoirdupois.

They reckon $14\frac{1}{2}$ vakia, at Beetlefackie, to 1 rattle, and 2 rattles to 1 maund; in coffee, 29 vakia are 1 frazil; and to all other goods 15 vakia to one rattle: but of all kind of merchandise whatever (except jaggry, dates, candles, and iron, of which 16 vakia make one rattle) the above are the weights.

At Mocho and Beetlefackie the rattle is only used in the bazar.

They have great numbers of horses, the finest in the world, whether we consider them for swiftness, beauty, symmetry, or sagacity.

When you arrive at Mocho, the first step you take should be to find out a good linguist, provided you have not one with you; if you have, it is natural to suppose he will be more in your interest than a stranger got there. But you ought to take a pilot to carry you on to Judda, agreeing with him for the run; which will be from fifty to one hundred Mocho dollars, for the trip there and back, besides a suit of cloaths at Judda.

If you sell here, your silk will fetch one hundred and twenty Mocho dollars per frazil of thirty-one and a-half ells. I would advise you to strike for that price, as well as for your cloves, if they offer one hundred Mocho dollars, or even ninety-five per frazil for them; and if you can get five Mocho dollars per tomaund (100 hundred bags are 82 tomaund) for your rice, I would advise you to sell it also; observing, that if you do not make any sales at Mocho, you do not pay any port charges; but if you sell any thing, even one bag of

rice, you become liable to pay the whole, as if you had sold the entire cargo: but in all probability, as your sales here will be but trifling, settle with your broker, and be very clear and positive with him not to pay port charges, nor present to the Xerif; or else you must put what cargo you sell on board some ship in the roads, who is landing goods, and have them sent on shore as her cargo.—By this mode you may evade the charges, which are considerable; though you cannot do this with your rice, for you will want it as ballast going up to Judda.

The captain, if supracargo (or executive agent), had better not go on shore at Mocho, as the broker, (who will come off to the ship as soon as she anchors in the roads,) or linguist, will be able to do any thing necessary for him; such as sending him water or necessaries off to the roads.

MOCHO

Coins, or Money.

The coins of this country are only carats and comassees, which rise and fall extravagantly, according to the quantity of silver there is in them.

1 carat is 3 grs. 057 decim. troy weight.

7 carats are 1 comassee.

60 comassees are 1 Spanish dollar.

80 caveers are 1 Mocho dollar.

121½ Mocho dollars (are esteemed) 100 Spanish dollars.

Exchange of Gold Coins.

Venetians produce each in silver 2 dollars 25 caveers.

Touch by the shroffs 13½ versua.

Gubbers	are	—	—	Dol.	Cawcers,
Gingerlys	—	—	—	2	20
Xeriffes	—	—	—	1	55
				1	50
Bars of gold from Muffova, touch from 11 to 12 versua.					
D°	d°	Mofambique	d°	9 to 10	d°.

Weights Troy.

			lbs.	oz.	dwts.	grs.	decimals.
16 carats, or 1 coffola	are		0	0	2	0	912
1½ coffola, - 24 carats, 1 miscal	-		0	0	3	1	368
10 coffola, - 1 vakia	-		0	1	0	9	012
1½ vakia, - 1 beak	-		0	1	10	13	068

Avoirdupois.

			lbs.	oz.	dwts.	grs.	decimals.
15 vakias, or 1 rattle	are		1	2	0	0	0
40 vakias, - 2½ rattle, 1 maund	-		3	0	0	0	0
10 maunds, - 1 frazil	-		30	0	0	0	0
15 frazils, - 1 bahar	-		450	0	0	0	0

Measures.

1 guz is 25 inches English.
 1 coid - 19 d°
 40 kellaš - 1 tomand, or 165 lb.

Liquid Measure.

16 vakias is 1 naosfia.
 4 naosfias - 1 cuddy, nearly 2 gallons, or 18 lbs.

Customs.

Customs.

The English pay government 3 per cent. on sales.

Brokerage is $1\frac{1}{2}$ per cent.

Shroffage - 1 per thousand.

The Mahomedan merchants nominally pay government 7 per cent. customs; but the impositions of those who are entrusted with the receipt, take care to impose other duties, not authorized, to the amount of 15 per cent.

Should it so happen that the broker at Mocho cannot send you a pilot he would recommend, observe, that, as soon as you are as far to the northward as 20 degrees of north latitude, begin to fire guns for a pilot, viz. morning and evening, and fire two each time, at about a minute interval; taking, however, the precaution to be close in with the Arabian shore at the time; and endeavouring to make them have the best possible report, by being double wadded and the muzzles well greased, pointing them directly towards the shore.

The best pilot in Judda is Ally Eufuff, to whom for pilotage inwards you pay one hundred Judda cruz; outward, only forty Judda cruz, besides a small present, which is customary in piece goods, and a bag of fine rice when he is leaving the ship.

As soon as you anchor in the harbour of Judda, the Enubar and officers of the Bashaw will come off, and demand a manifest of your cargo, that is the number of packages, they do not inquire about the contents; only say, "so many chests of chinaware, so many bales of Bengal goods," &c. &c.

The only man I can or would recommend to you at Judda, is Shaik Ally, as an Arab writer, (which it is necessary you should have); he will also serve you as your broker.

When

When the Enubar's boat leaves you, he will leave two custom-house officers on board, who will remain until the cargo is all delivered and the ship searched (or jerqued), to whom, during their stay, there is a customary daily allowance for provisions. In addition to these officers there will be a boat moor astern of you every night while any cargo remains on board; and do not suffer your own boat to leave the ship, except when it cannot be avoided, as the officers of government are both troublesome and insolent, stopping and searching your people, &c. &c.; but as soon as the ship is cleared and searched, this ceremony is dispensed with and no longer pursued, and you have a free communication with the shore.

Should it so happen that you arrive at Judda before the Hodjee, (and to effect this you must not lose any time at Mocho,) get permission to go on shore as soon as possible, and in this case the government will wish to hasten you; so that there will be no difficulty in procuring the indulgence. But do not leave the ship until you have agreed to be allowed to choose your own broker and shroff; and have it in writing under their signature, or else they will impose some creature of their own upon you, who pay them for it. I have already said that Shaik Ally will probably be your broker, and assist you in choosing a shroff. If you cannot get Hodjee Hogg Sayell, who is the most honest man in the English service at Judda, stipulate with them also, that all your cargo pay the duties, charges, &c. in kind, which will amount to eight or nine per cent.; and that it be opened and examined at your own house (only), and by no means in the public custom-house.

A good house, with convenient warehouses and godowns, will cost you from three to four hundred cruz for the season.

When you go on shore, your first visit is to the Bashaw (or Baudshaw), and afterwards to the Xeriffs; after which, and you have returned to your own house, begin to land your cargo as fast as possible, and arrange it in your godowns for inspection, (taking care that
it

it comes immediately from your boats to your own house, and not to go near the custom-house), sorting each description of goods by themselves; freight and private trade promiscuously: and when all is assorted send information to the government, that your cargo is ready for examination.

When the Bashaw and Vizier come, point out to them the different parcels of bastas, &c. and tell them they contain such a number of pieces, of such and such goods, but be very exact as to the quantity and number in each bale; for if they find the number agree with your account they will not open more than a bale or two of each kind; but if the number differs from your report, they will open every bale of your cargo; this will be exceedingly troublesome, and cause you to be suspected in all your future dealings.

When this job of examination and settling the customs is over, (which you will find the most troublesome of any you will meet with at Judda,) you are to make up the government presents of piece goods; two or three pieces of each kind in your cargo, probably to the amount of four thousand cruz: of this Shaik Ally will inform you particularly.

These presents must not be charged to the owners alone, but in proportion to all the freighters; and your brokerage, which will be about one thousand five hundred or two thousand cruz, (including your Arab writer,) must be charged in like proportions.

Your presents being delivered, find out (among the shroffs) what are the price of old and new german crowns, venetians, flamboles, &c. &c., gubbers, zurmahaboubs flamboles; but do not buy any zurmahaboubs, missiree, nor gingerlys, as they do not turn to advantage: the best guide for your direction is to have the product of these coins from the Bombay and Madras mints, and make your purchases of them according to your calculation.

When you are thus far prepared the merchants will come to you, and even press upon you if the Hodjee is near. You need not talk of
ready

ready money, as none pay until after the Hodjee ; so that you must make your bargains to be paid after the Hodjee and their returns from Mecca, together with the specie in which you will be paid, and the rate of exchange of each kind of coin: all these articles must be booked by your writer, as his book is your voucher in case any dispute arises, (and indeed this is the only real use of having an Arab writer).

The first offer is invariably the best; and if you can agree with one person for your whole cargo, you will reap a double advantage, for you will get a larger price, and less trouble. The time from your arrival, until the time of the Hodjee, will be very short; and after its arrival your goods will not sell, at least not to such a good account.

You are to be guided by the character of the merchants to whom you give credit. In this I will not pretend to guide you, as the honest man of one year may turn out otherwise the year following; and by presents and bribery to government may purchase their protection; or may probably be able so far to influence government to prohibit any others, but himself and his creatures, to purchase your goods. As a guide, I can tell you what they say of each other,—“ If he has been at Mecca (or Hodjee) once—take care of him: if he has been there twice—do not trust him: but if he has been there three times—have no kind of dealing with him, for he will cheat you.”

There is one thing which I cannot omit in this place. In the event of your selling the whole of your cargo to one person, or only one particular specie of goods, you ought to observe, (as they buy them at an average price), that the proprietors of fine goods of that specie should have a proportionate advance upon their goods; and consequently the proprietors of coarse goods should have such advance taken from the amount sale of their goods being of a worse quality; and only sold (probably) by the demand of the other (fine) goods.

As soon as the merchants return from Mecca, which will be

about a month, begin to collect your money, and send it off to the ship immediately as you receive it; and never, if you can possibly help it, keep any in your house: and at the same time call upon all the merchants and pilgrims, and fix upon a day for sailing: the merchants will by this means prepare their treasure freight and themselves as passengers; from whom, and the pilgrim passengers, the Captain's principal emolument arises; as he has so much a head for each, as well as so much more for his water and provisions; both of which, by custom, are allowed to him by the owners of the ship.

A further emolument of the Captain arises from insuring the freight treasure which he takes on board, and which the native merchant never objects to, although he may be a passenger on board; and will take the captain's guarantee, though not worth a sou, for lacks of dollars, if he has so much on board.

The freight of treasure from Judda to Surat, Bombay, or Madras, is generally three per cent.; the premium of insurance, as the captain can agree, from one to two and a-half per cent.; the freight of gruff goods is arbitrary, as it must be agreed upon by both parties.

Should the season be so far advanced as to make it doubtful whether your ship will be able to go to Surat, deliver her freight, and leave it before the full moon in March (or not). It would be better declining taking any Surat freight, except the merchants will allow you to send the treasure by some other conveyance from Bombay immediately upon your arrival there: if they agree to this, the additional expence must be paid by their constituent at Surat, and not by you. If you can prevail upon them to do this, it will considerably increase your freight, as they have large consignments from thence in Guzerat, Cassimbuzar, and Bengal piece goods, &c. and consequently they have large remittances to make.

Probably, if the prices of goods are low at Judda, and you do not sell at the first offer, your Arab writer will endeavour to persuade you to send them to Mecca, in hopes of their being entrusted to his care,

and

and himself with the sale at the Hodjee, and have the commissions; they will furnish you with very specious and favourable accounts of the markets, as well as bringing numbers of people to recommend them, as being well acquainted with the markets, and of the greatest integrity. But do not on any account fall into this snare, for as certain as you send goods to Mecca on your own account, to be sold at the Hodjee, you will be a considerable loser (if not lose the whole) by the speculation.

The customs upon your china-ware and goods will be settled by the government, and (though it may be extravagantly exorbitant, complaint is useless, as you can have no redress) from the account you give them, and which should be done by the supracargo or purser, in the public custom-house: as it is a necessary form it ought to be complied with.

Your musk and agalla-wood they will weigh in the custom-house, and probably want to open it there to satisfy themselves; but you must not allow it to be done. If they want to see the contents of your packages, let them come to your house; for if you open any thing in the custom-house, you may rest assured of losing twenty-five per cent.; and you cannot possibly help it, they are such expert thieves.

When they deliver you the amount customs upon your gruff goods it will be ten per cent. above what the custom should be.

Upon both piece goods and gruff cargo they charge you, under the heads of Calum and Xeralphie, ten per cent. upon the amount of your customs; which they call fees, for the different writers and people attached to the custom-house. By a small fee you may prevail upon them to take your china-ware at five per cent. without unpacking or counting, which will reduce the whole of your customs to about eleven or twelve per cent.: and if the time before the Hodjee is short, the government will readily agree to this; but will take ten cups from every chest of china-ware, exclusive of the cus-

toms. What this is done for I could not find out, only that it was an old established custom.

As you generally sell your china-ware by the codge, which is twenty, in all parts of India, you are to recollect that the codge is twenty-two at Judda.

When you sell your sugar-candy, or any thing else by weight, send for the custom-house steelyards, (as it will prevent disputes), and have the goods weighed, and delivered at your own house.—They make arbitrary deductions, from five to twenty per cent. for tare of the packages; therefore agree previously about the tare: sugar-candy is about ten per cent.; upon this account, a small present to the custom-house weighman (conveyed privately) may be advantageously disposed of, as he generally fixes the tare; and, as well as his present, give him a few cruz and a bottle of arrack occasionally. If the Bashaw purchases your cargo, or any part of it, the weighman dare not shew you the smallest favour in the delivery: on the contrary, you may expect the reverse; but even in this, your present will not be misapplied, as he will, for arrack and a few cruz, do all he dare to serve you.

Insist upon your shroff to have the weighing of your musk; it will save you a great deal. Musk sells by the rattle (of four hundred drachms).

You pay one thousand to twelve hundred cruz anchorage, with about three hundred and fifty cruz when you get on the coast, which will be all the charges, besides the pilotage, you have to pay at Judda.

It may be now necessary to caution you against disputes, which will unavoidably arise, (either about your prices, your payments, your money, or your goods,) that they should be settled amicably, if possible, by your shroff, or by merchants of respectability; but if you are under the necessity of referring the dispute to the government, apply to whoever has the most weight at Judda, either the Bashaw or the Xeriffs; but not without a present. If your appli-
cation

cation is to the Bashaw, go yourself personally: and if it is to the Xeriff, go to his house in Judda: if he is absent, write to him to Mecca, through your Arab writer. But all this is only upon the most urgent necessity: for all communication with the government ought to cease, immediately after making your present and paying your customs.

Having finished your business at Judda, which will probably be in the end of July, and able to sail by the first of August, you will probably get to Mocho the 10th; of which you should inform the broker before you leave Mocho to go up the Gulf (or Red Sea); and desire him to procure you all the freight he can, and have it ready by this time. The freight from Mocho to Bombay is two and a-half per cent. for treasure; and to Surat, to be delivered free of all charges to the consignee, three per cent. for gold, and four and a-half per cent. for silver: by this mode you will be able to do all your business, and leave Mocho, perhaps, with a full freight, by the 20th of August, (particularly if it should be a year when there is no Company's ship there, then there will be little doubt of your getting full of freight,) by which means you will get to Bombay in the early part of September, and have fine weather, and a whole season before you, to go to Surat, if necessary.

The customs upon piece goods being taken in kind at Judda, the government allow the purser and linguist the customs arising to it, of two bales, viz. one bale each; and give them leave to pick the two richest bales in the cargo for themselves. The captain being generally his own purser, this also is one of his perquisites, as well as in his freight treasure he draws the following primage, viz. on every one thousand two hundred and fifty cruz he has one german crown; the signing every bill of lading one german crown; every passenger on going on board, one german crown; and on every bale, chest, bundle, or package whatsoever of freight, twenty-five doonies each.

A comparative View of the relative Value of Coins with Bombay.

			Rup.	Qrs.	Rais
100 Mexico, or head dollars, will mint	-	-	239	2	74
100 French crowns (if full weight)	-	-	239	0	59
100 English ditto (of which they have many)	-	-	239	2	74
100 Pillar dollars	-	-	241	3	38
100 German crowns	-	-	226	3	92
100 Duccatoons	-	-	244	1	39
100 Old abaffes *	-	-	226	3	80
100 New abaffes	-	-	256	3	0
100 Estimates	-	-	239	2	74
100 Old Seville estimates	-	-	242	3	70
100 Peru (or cobb dollars)	-	-	224	2	28
100 Lion dollars	-	-	193	1	4

Should you wish to coin your silver, the above statement will be found pretty correct, exclusive of mintage, which amounts to about four per cent. But if your ship is going to Madras and Bengal, it is better to sell your silver to the shroff than coin it. One hundred ounces of standard silver will bring you two hundred and fifty-eight and a-half, or two hundred and fifty-nine Arcott rupees; and there being only one per cent. difference between Arcott and Madras rupees, makes it seven per cent. better thus to sell to the shroffs than coin it into Madras rupees.

The exchange at Judda frequently fluctuates, but the general average may be taken at two hundred and fifty cruz per hundred Spanish (head) dollars.

* There are another kind of old abaffes often mixed with the above, which are five per cent. worse.

From the above statement it would be best, at making your sales, to fix both the price, or value, of your gold and silver coin (in cruz) with the merchant: in this be very exact, and observe, that gold fluctuates more than silver all over India: it would be necessary, therefore, before you leave Calcutta, Madras, Bombay, or Surat, to have the price current, of all kinds of coins, from the shroffs, in the current rupee of the place: as in Bengal the price in Sicca rupees; Madras, in Madras and Arcott rupees; Bombay, in Bombay and Arcott rupees; and Surat, in Surat and Arcott rupees: by this means you will know to a certainty what your coins will produce, and the best market for the sale of them: add to this, large sums are paid at Judda in gold; and a small error in calculation may amount to a considerable sum. And be guarded, upon the receipt of gold, not to suffer them to charge you one or two per cent. for what they call overweight; or if obliged to allow it them, make your estimate of the relative value accordingly.

The Grand Signor's customs on goods imported by the English, through his dominions, are five per cent.; however, the Bashaw of Judda, under pretence that Judda is not named in the phirmaund for our trade, has always imposed a great deal more: he takes four per cent. for himself, four per cent. for the Xeriffs, and the other impositions may be reckoned at four per cent. more; making the whole aggregate amount equal to at least twelve per cent.

Your packages of every kind should be, if possible, in even hundreds; for if the number exceed the hundred by a single piece, you pay the custom on the additional hundred. Whether this is done by the officers for their own emolument, or for the benefit of government, I could never find out: nor any redress for the exorbitant customs frequently laid upon gross goods.

The general Imports—are

Cassia-lignum, cardimums, pepper (both long and black, or round), sandal-wood, nutmegs, cinnamon, cloves, turmerick, collembeck, benzoin (head and belly), ginger, lamp-black, sugar, sugar-candy, tin, copper, iron (bars), steel, tutenague, some Ballafore iron, piece goods of all kinds, silks (both raw and wrought), chints, &c. &c. &c.

The pillar and head dollar are esteemed here of the same value, although the pillar dollar is two per cent. better than the head (or Mexico) dollar: the French crown thirteen per cent. less, though of equal standard; in which you may gain an advantage, by buying up French crowns or pillar dollars: but, if possible, avoid taking gold (upon your own account).

The new acquisitions lately ceded to the East India Company, in the Myfore, will open a new source of wealth and commerce to the English and native merchant in India, particularly from Bombay and Calicut to Mocho and Judda; the whole of the Malabar and Canary Decan, and Concan coasts, as well as the rich kingdom of Myfore, furnishing the richest articles of commerce for these markets.

JUDDA

Coins, Weights, and Measures.

			lbs.	os.	dwt.
1 vakia is equal to	-	(troy weight)	0	1	0
15 vakias are 1 rattle	-	-	1	3	0
2 rattles are 1 maund	-	-	2	6	0
10 maunds are 1 frazil	-	-	25	0	0
10 frazils are 1 bahar	-	-	250	0	0

All

All goods are weighed with the steelyards, after the Turkish manner; and Europeans as well as Turkish merchants are obliged to rest contented with such weights as the weigher thinks proper to give them; nor are merchants allowed to weigh goods (whether bought or sold) themselves, but the weighman must attend.

DIRECTIONS

FOR SAILING TO THE WATERING PLACE.

WHEN you weigh from the roads, steer S. half W. or S. by W. until you deepen your water to six and a-half or seven fathoms, you may then steer south or south-easterly as your lead directs; but do not come under four and a-half or five fathoms from the eastern side. Two miles below the roads is a large flat, which has but little water on it. When you approach the Watering Place in Simon's Bay you will deepen your water to 9 or 10 fathoms, sandy ground, and will see a gap in the land to the northward of a bushy tree that stands near the Watering Place; when this tree is just on with the gap you are then in the middle of the bay, and may anchor from 10 to 7 fathoms, but not under seven fathoms, as you will be too near the shoal that runs off shore. With the tree E. half S., in 10 fathoms, there are two small spots of coral about the length of a ship, with four or five fathoms water on them.

SHOALS LATELY DISCOVERED.

In latitude $24^{\circ} 50' N.$, and 26 miles West of St. John's Island, lies a shoal, (seen in the Gunjaver,) about a cable's length of which is dry.

Note. There is a dangerous shoal of rocks, even with the water's edge, and about 50 yards in length, lying to the eastward of Sabagar Islands, distance three or four miles. When in one with the northernmost of the above islands they bear N.W. by N.; and when you bring the Peak of the S.E. island to bear W. half N. distance three or four miles, the rocks will then bear N. by W. one-quarter W. distance four miles.

EXTRACT FROM THE ROYAL ADMIRAL.

August 16, 1772, at noon, they observed, in latitude $20^{\circ} N.$ and had made $49^{\circ} 16' W.$ from Prince's Island meridian distance, when they found the water discoloured, but had no ground 70 fathoms. On the 18th they weighed, in order to find a passage between the main and the island, steering N.N.E. and N. by W., and had six and seven fathoms water for some time; then shoaled from seven to four and a-half gradual soundings; they then stood N.E., E.N.E. and E. until they came into three fathoms, upon which they anchored, the island of Mereira bearing from E.S.E. to S., distance two and a-half or three leagues: some time after the water fell two feet, and the ship struck. At eight P.M. they found the water rising again, which makes the time of high water $10^h 48^m$ in full and change. It rises about five feet.

On the 19th they went and founded in the boat. N.W. by W. half a mile they had four fathoms, on which they weighed and anchored;

anchored; in that place the variation was observed to be $5^{\circ} 56' W.$ On the 20th, at ten P.M. a boat with a pilot went on board, who agreed to conduct her between the islands and the main; the boat went and founded between the ship and the island, and had from four to three fathoms, then deepened gradually to 4, 5, 6, and 7, fathoms. The boat founded to the westward, and had four and a-half fathoms for two miles from the ship. On the 21st, at noon, they weighed and stood S.E. by E. towards the island; soundings 4, 4, $3\frac{3}{4}$, 3, 3, $3\frac{1}{4}$, $3\frac{1}{2}$, and 4 fathoms, then deepened gradually to six fathoms; then bore away E., E.N.E., and N.E., keeping in six and six and a-half fathoms until near the islands; and they then anchored in five fathoms, soft mud and shells, the island bearing from N.E. by E. to S.W. by S. off shore two miles; latitude, observed, $20^{\circ} 23'$; and variation $5^{\circ} 36' W.$ On the 25th, at two P.M. they weighed, and stood along shore, off the island, to the northward and eastward, steering from N.N.E. to N.E., in five, five and a-half, and five three-quarters fathoms. At three they came up with a large sand-bank, bearing N.W., above water; they entered this channel, keeping off the bank half a mile, the island three miles, and the main two miles; they had from four three-quarters to four one-quarter fathoms, and a cast or two six fathoms. The island bearing about S.W. to N.E., one and a-half or two miles distance, they anchored in four fathoms to sound to the eastward and westward of the ship, and found no less than three fathoms. At eight weighed and stood N. by W. and N.E. along shore; had from five to seven fathoms, and at times three and a-half fathoms. At eleven they anchored in four and a-half fathoms, the north end of Mecca bearing from S. half W. to W.S.W., distance three miles; latitude, observed, $20^{\circ} 48' N.$ In going this passage they had no less at low water than one-quarter less three fathoms.

AN
ACCOUNT
OF THE
TRADE TO PERSIA,
BY
THE GULPH AND BUSSORAH.

THE Armenian, Gentoo, Persee, and Mahomedan merchants of Calcutta, Madras, Bombay, Surat, and Cochin, carry on a large trade to Persia, through Bufforah, and to the Red Sea; supplying both Persia, Arabia, and Turkey, with all the manufactures and rich merchandize of India: in return for which they import pearls, carpets, gums, particularly mastic, ammoniac, galbanum, and a variety of others; pearls, a variety of wines, particularly that of Shiraz (so much esteemed for its delicacy and high flavour), fenna, nuxvomica, almonds, raisins, dates, pistachio nuts, and leather, together with many drugs of high estimation in the Materia Medica; assafoetida, galls, horns, and numerous other commodities; as well as shawls, horses, &c. &c.; but particularly large quantities of treasure.

This traffic being carried on by British commanders and officers, I think it comes within the limits of this work to make such part
of

of it known as I have been able to collect from my own knowledge and the best information.

The chief manufactures of Bengal, for these places, are, muslins, dimities, calicoes, filks of a variety of fabrics, and gold and silver gauzes, fugar, &c. &c.

The other general exports of Bengal are, faltpetre, opium, indigo, rice, drugs, diamonds, and precious stones, and a variety of grain.

From the coasts of Coromandel and Malabar, are sent to these places, chints, calicoes, and a variety of spices, particularly cardiums and pepper (both round and long), with many other valuable articles.

BUSSORAH.

At Bufforah is got, at a very easy rate, a bitumen, which, in colour, smell, and other qualities, resembles coal-tar, and fully answers all the purposes which that valuable article is applied to, though in a very superior degree; as it will remain many months under water uninjured by the worm, which will not touch it, on account of its sulphureous stench, and which makes it valuable for ships bends and boats bottoms.

I have tried some experiments with this bitumen (or naphtha) and coal-tar, by paying (or smearing) some plank over with each sort, both hot and cold; and found the plank done thus with coal-tar in three months quite eaten like a honeycomb, while that done with this bitumen remained uninjured, and was some months after before the worm made any impression on it.

I believe there is not any part of the world where the worm is so destructive, bites harder, or sooner destroys a ship's or a boat's bottom, than in the river Euphrates and the Persian Gulf; for which reason, nature seems to provide this bitumen, as an antidote, to prevent

vent the destruction which this insect would otherwise cause, and whose destructive purposes are defeated by this valuable but little known material.

This bitumen is a most beautiful and shining black, and makes a ship's bends (when payed with it) appear as if they were varnished. Mixed with oil, it makes a beautiful black paint; but it is little used, on account of the intolerable stench it emits until it is quite dry. It is worthy the attention of the navigator, and deserves to be used for the many good qualities which it possesses.

The horses brought from Bufforah are very valuable, and the most perfect beauties of any of their species in the world (except the hoof, which is small, narrow, and high, in proportion to the animal). They are able to travel with great expedition, and to undergo incredible fatigue.

The articles for this market (after having your ship well dunnaged with shinbin, comar, and sheathing teak planks, of which they are much in want, having little timber of their own) are, iron, pepper, both heavy and light; [what is meant here by heavy pepper is, that which is well garbled, winnowed, and clean, such as is fit for the European market; the best sort of which is got on the Malabar coast. The light pepper is that which comes from the Malay coast, Borneo, and coast of Sumatra, which has invariably a great quantity of husks in it, and makes it light compared to the other, not being so well cleaned;] cotton, lamp-black, agala-wood, soofies, cutanies, moogadooties, clatchies, fine piece goods, toffimet, algar hagar, bule tanmum, alyar bule zurry, alyar bule nunzier, alyar bule fudda, bastas and coffas of all sorts, bildar fudda, bildar furry, alyar nimzeer, alyar tomumzier, chetwah corgonnah, chetwah sunam, gurrumfoot mohomedshe, cotnus saddy, of all sorts, shanbs shelfre, shanbs cumberbands, farrooks dustoor, shargen, musk, broadcloth, &c. &c.

Mahometans pay here only two and a-half per cent.; all other nations

nations pay five per cent.; and upon gruff goods they pay fix per cent.

Should the foregoing list of goods not be known to the India fircars and merchants, any Turk, Arab, or Armenian, can explain them; as they are a list taken from a native merchant of Bufforah.

Immediately upon your arrival at Bufforah, use difpatch in going up to town, and procure boats for your cargo; for which you apply to the chief, who generally fends down boats, called dunnocks; but I would advife you to have trankeys, as they are lefs liable to be ftopped in the river, which frequently happens when dunnocks are fent.

You are next to look out for, and hire, a good houfe, with large godowns (cellars or warehoufes), which ought to be as nigh to the creek as poffible, for the convenience of landing and receiving your goods.

In choofing your broker, much caution and circumfpection is neceffary, as your whole tranfactions depend upon his being fteady to your intereft. If poffible employ a perfon who trades a little for himfelf, and is independent of any one elfe: the fame caution is to be ufed in choofing your fhroff (or banker).

Thefe people you will find very flow in tranfacting your affairs; though they will appear to be very affiduous: your fervants fhould be folely dependent upon yourfelf; and you ought not to employ any recommended by perfons whom you fufpect to be defirous of prying into or being acquainted with your bufinefs and concerns. This caution is to be obferved, otherwife your whole tranfactions will be communicated to the whole town; which, doubtlefs, will be much to your prejudice.

After you are fettled in your houfe, the merchants will come and pay you a vifit; the Turks and Armenians will be very inquisitive about your affairs; they are particularly tenacious of any flight; be there-

therefore very complaisant in your behaviour, and treat them (particularly the Turks) with much courtesy.

When landing your cargo, the freight goods (if you have any) should be put in different boats from your own, otherwise it will cause much confusion and trouble, as all the freight is carried to the gomrook (or custom-house); but your own private trade, immediately upon landing, is carried to your own house; for which reason the officers on board should have a list of the freight goods; and orders not to mix them in the boats with the trade, but load them separately.

The purser (if you have one) ought to attend at the landing place with a list of the freight, and the marks and numbers of each package; as it frequently happens that the merchants do not know their own bales.

After all your goods are landed, you inform the Shabundar you are ready for his visit; he will come, with his officers, attendants, writers, and some of the principal merchants of the place; they will take an account of your goods, open a bale or two of each quality, and are satisfied with your account of the number of bales, and quantity of pieces in each. This good opinion should not be abused, as it renders the inspection extremely easy to you. And for the gruff goods he takes the account entirely from yourself.

After this first visit he pays you another, to be informed of the prices for which you have sold your goods; and if any remain unfold they are valued, and the customs and duties calculated upon the whole.

The Shabundar receives no duty upon grain; this is paid to the Murbarall: other goods either pay to the Shabundar or custom-house.

Upon exporting any goods, you must have a permit from the Shabundar, mentioning the quantity and quality of them.

The gomrook hamauls (or custom-house porters), will not allow
your

your own hamauls (or porters) to bring your goods from the water side to your house, (as these people farm their place from government, and pay a large sum annually for it), for which you pay them one mamoodie per bale, and five mamoodies per hundred maunds (sophy). House hamauls have only half that sum for their labour; and five mamoodies per hundred maunds (sophy), for the returning cargo.

Boat hire is two mamoodies per bale, and ten mamoodies per hundred maunds (sophy). The best method is to hire trankeys, for so much per trip; the expence is something more; but the safety of your goods, and the dispatch they make, fully compensate for it.

Presents here are very necessary, particularly to the Islam (or Bashaw); they are generally made up in goods, to the value of twelve or fifteen hundred cruz: but he afterwards receives the amount in money, and the goods are returned. This makes it easy to the merchant, as he might otherwise dispute the value of the goods.

You should make a proportionate present to the Shabundar and his people; the Murbar's people, your broker, shroff, linguist, and the Bashaw's servants.

After your presents are all made you visit the Islam, who makes you some trifling present, as a coat (or gown), such as is worn in the country.

Your house will cost you about thirty tomands for the season; besides you must have a licence to trade, which is five tomands per annum more. Your doorwaun (or porter), thirty-six mamoodies per month; waterman (or beastie), thirty mamoodies per month; and your watchman, twenty mamoodies per month.

You should have English weights and scales; as their weights are seldom just, being only bags of stones.

Owners of ships, from all ports in India, allow the commanders house-rent, palanquin (or carriage) hire, oil, candles, grain, fuel. Sircars (or comprodors) pay, except at the port to which the ship

belongs, when no house-rent or palanquin hire is allowed, but every thing else. And this custom is general in India, except there is a special agreement to the contrary. If they bring freight back, upon their returning voyage, the owners allow to the commander five per cent. as a commission for collecting it.

Weights.

		lbs.	oz.
1 vakia is	—	10	19
24 vakias are 1 maund	—	28	8
76 d° - 1 maund seefe (or fophy)	—	90	4
117 d° - 1 cutra	—	138	15

A List of Bengal and other Goods for the Bufforah Market.

Baftas, shaundpore.

D° dacca.

D° blue.

Dureas, flowered and plain.

Elatchies, maulda.

Emerties.

Hummums.

Mulmuls, muxadabad.

D° furbetties.

D° heatty.

D° anundy.

D° mahmodeatty.

D° fevohdeatty.

Soofies.

Turmeric.

Coffaes, ordinary.

Sugar-candy.

Sugar, Bengal.

D° Java.

Jaggary.

Benzoin.

Cloves.

Nutmegs.

Mace.

Pepper, black.

D° long.

Rice, fine.

D° courfe.

Searhaudpeak.

Searhaudpeak.	Tin.
Surbands sonnarjam.	Lead.
Terendams.	Iron.
Taffeties, fine.	Copper utensils.
Coffaes affmary.	Planks.
Lamp-black.	Stick-lack.
Camphor, China.	Ginger.

Lieutenant Colonel TAYLOR, of the Bombay establishment, who, in the year 1790, crossed the Great Desert in his way to Busforah, in charge of public dispatches, and touched at some of the ports on the Persian shore during the voyage to Bombay, has mentioned the following particulars*; which are inserted in this place, in order to throw a further illustration on the commerce of Persia, and of the connection, which it may be in contemplation to establish, between Great Britain and that once flourishing and extensive empire.

The author here quoted had an opportunity, during his stay at Bushire, of making observations on the present state of Persia; and he observes, that “ The articles of commerce, with which the empire of Persia abounds, are various; in particular, fine carpets, wrought silver, pearls, excellent tobacco, silk and cotton. The principal commodities taken in return are, English broad-cloth, particularly scarlet and yellow. Manchester printed cottons were suggested, as likely to answer the Persian market, and some of the most brilliant patterns were selected, and sent to Bushire, but they by no means suited the taste of the Persians; for what appeared extremely handsome in the eyes of an European was disregarded by that people, and the more simple, though perhaps not less elegant, patterns of their own preferred. It might be worth while to carry the experiment a little further; and it would very well repay the trouble and expence, pro-

* See Travels from England to India.

vided so material a branch of our manufactures could be brought into use in Persia. The experiment (which I would also recommend) is, to collect some of their most esteemed patterns, and have them printed upon fine cotton, particularly the figures which are common, or in general use in India and Persia, with the most vivid colours that can be procured; and, in short, by variety, and attention to their national taste and character, induce them to become purchasers of those, and such other commodities as are the manufacture of Great Britain."

" In the beginning of 1799, an embassy was sent, by the Governor General, by the way of Bombay, to the court of Shirauz. This mission is said to have had a twofold object; the one, political, the other commercial. The vicinity of Persia to the dominions of Zemaun Shaw, and the depredations committed by that prince on the eastern provinces of the Persian empire, give to the East India Company a well-grounded hope, that the military resources of that kingdom may, on some future occasion, be successfully turned against that powerful and ambitious invader, or his successor; who will no doubt be guided by the same views and interests with the present prince. The commercial relations may, no doubt, be carried to a very considerable extent. A monopoly in the hands of the Company, of British woollens, Manchester goods, metals, &c., would promote the sale of the staples and manufactures of Great Britain; while a free commerce would be carried on between the country traders of India and the natives of Persia. It is computed that Persia consumes annually of the produce of India, two crores and three lacs of rupees; and that the returns are under half that sum: consequently, the balance of trade being sent back in bullion, or coin, must not only be beneficial to the Company, but to the European private trader in India, and to Great Britain in particular."

The wine of Shirauz, so much esteemed by the Persians, has never been allowed a fair trial by the European connoisseurs. A

short account of it, from the same author, may not in this place be improper.

"The wine of Shirauz is rich, full, and generous; and when old, may be compared to the best productions of any country or climate. The new wine has a disagreeable roughness, which age wears off.—It is to be had both white and red, but the first is esteemed the most delicious. It is said that four thousand tons are annually made by the Jews and Armenians in the months of October and November at Shirauz. Much of it is used in Persia, and the remainder exported to India, where it is disposed of at a moderate price. In this country it is sold at the immoderate rate of one guinea a bottle!"

DIRECTIONS

FOR GOING INTO BALASORE-ROADS IN EITHER MONSOON,
AND HOW TO FIND THE PILOTS.

THE entrance into the river Hoogly is allowed to be the most difficult of any river in India; and is the terror of strangers, for want of good directions. The following plain rules will be found more instructive to navigators, for going into Balasore-roads, than any I have hitherto seen; and what I have always found correct.

The S.W. monsoon, in the bottom of the Bay of Bengal, always brings in thick weather, with drizzling rain, and prevents observations (at times) for many days; by which strangers are much at a loss, and afraid to run in for Point Palmiras. I will endeavour to obviate such uneasiness, by these Instructions, so as to enable any ship

to

to go into Balasore-roads, by night or by day, or in any kind of weather.

From Point Palmiras to Chittagong, the first of the southerly winds set in about the full moon in March, when you have light airs, veering to the eastward in the morning, and to the northward towards noon and in the evening. The full moon in April generally brings in the S.W. monsoon, attended with heavy clouds, strong gales, and sometimes rain. It blows in general strong, but more so upon the spring or neap tides: for when it blows hard upon the neaps, you generally have it moderate upon the springs; and when it blows hard upon the springs you have it more moderate upon the neap tides, as they take off. It continues with little variation until after the full moon in August; when you have often, for many days together, fair weather.

The N.E. monsoon comes on, in general, about the full moon in October, and generally with a gale of wind from the N.N.W.; it veers round to the westward, and breaks up in the S.W. quarter, where it blows hardest; then veers to the southward and S.E., and ends in the eastern quarter, with fair clear weather, and smooth water.

Having now given a brief account of the monsoons, as they prevail in the bottom of the Bay of Bengal, and particularly in Balasore-roads, I proceed to give Directions for going into Balasore-roads, and how to find the pilots, in either monsoon.

Suppose you are in the Bay of Bengal, without having an observation for many days. As soon as you reckon yourself to the northward of 18° N. latitude, haul in for the land, and, if possible, make the high land of Pondy, running in without fear, by the lead, which ought to be hove every half mile until you get soundings. There is no danger in doing so, for there is not more than from 30 to 35 fathoms water, any where from Ganjam to Point Palmiras, at four miles off shore. Having got ground, keep along shore from 20 to 18 fathoms,

18 fathoms, until you suppose yourself about the length of Manakapatam; then haul in for the land to 15 or 16 fathoms by day, and 18 or 20 fathoms by night; keeping the lead going.

From Manakapatam to the Black Pagoda the course is N.E. and N.E. by E. If it is daylight, and you are not in more than 18 fathoms, you will see Jagranaut Pagoda although it may be hazy: haul up for the shore, and keep between 14 and 16 fathoms until you get soundings upon the False Point, which soundings will be coarse sand, shells, and black specks, like beaten pepper.

As you run from Jagranaut to the False Point, you will be obliged to haul out E.N.E., or perhaps E., to keep your depth of water; and being over the False Point, and in soft soundings of green mud and stinking ouze, steer N.E. by E., and keep between 14 and 16 fathoms water; but do not exceed 16 fathoms for fear of crossing the True Point, or Point Palmiras, without getting the soundings, which are the same kind of ground (with little difference) as the False Point; and in 16 fathoms, the Point soundings do not exceed three miles broad. As soon as you deepen your water, on the above course, to 22 fathoms, with sand, broken shells, and mixtures of gravel, haul up N.N.W. for the foot of the Brace; and being in 11 fathoms water, not seeing a pilot vessel, keep under weigh, and work from eight fathoms water, into the westward, to six or seven fathoms on the Brace, crossing Balasore-roads in the depth of from 12 to 15 fathoms; and anchor at night in 11 or 12 fathoms, keeping under weigh all day.

Should it so happen that you have not seen the land before you get soundings, and by running along shore find the soundings off one of the Points; to know whether it is the False or True Point observe these Rules:—If by steering N.E., N.E. by E., or E.N.E., you keep the same depth of water (14 or 16 fathoms), soft muddy ground, you may be certain the Point you have crossed is the False Point. But should your water increase 3, 4, or 5 fathoms upon these courses,

in

in the distance of 3, 4, or 5 miles, with mixtures of sand, shells, and sometimes mud and shells, you may rest assured you have crossed the True Point, or Point Palmiras, and may haul up N.N.W. or N.W. by N. for the Brace, or Balasore-roads; and keep working as before directed.

When you see a pilot vessel (which vessels are in general snow-rigged, with a jigger or wringtall mast) whose turn it is not to take charge of your ship, they will direct you to where your pilot vessel is, who will have a red flag flying at the gaff end: steer for him, and he will carry you to Calcutta, or such place as you may ride in safety, until a river pilot comes on board to take charge of your ship.

Coming into Balasore-roads in the N.E. monsoon, you have invariably fine weather and smooth water.

You should endeavour to keep between the latitude of 21° N. and $21^{\circ} 10'$ N. I think $21^{\circ} 5'$ N. is the best latitude to keep in; and by steering W., or W. by S., keeping between the depth of 8 or 10 fathoms water, having regard to the tides (which rise here, and all across the sands, from Point Palmiras to Chittagong, 15 to 18 feet perpendicular) to govern your course. The first hard soundings you will get, in this latitude and depth of water, will be upon the tail of Saugur Reef: by continuing your course and depth of water, you will soon cross this reef, and have soft muddy soundings, at which time Saugur Channel will be fairly open. The soundings upon Saugur Reef are fine grey sand, with shingle and sparks, like ink-sand or steel-filings.

By continuing your course and depth of water, the next hard ground you come to will be the Eastern Sea Reef; the soundings upon which are something brighter than those upon Saugur Reef: and when you deepen upon this course to two or three fathoms off the Reef, and have again soft muddy soundings, the South Channel will be fairly open; and a N.W. by N., or N.W. half N. course will

will lead you (with a flood-tide) from eight fathoms on the Eastern Sea Reef, fair up to the French flat buoy, (which is a red buoy).

If you are a stranger, and afraid to run up channel, keep between eight and six fathoms water; and the next hard soundings you get will be on the Eastern Sea Reef; (this is also called the Tail of the Eastern Brace). You will soon cross this reef and get soft soundings again; (for the soundings in all the channels are mud). And the fourth hard soundings you get will be on the Western Brace; the same ground as the Eastern Sea Reef.

Should you not in this track see a pilot vessel, stand to the N.W., for upon a west course you will deepen your water very fast to 12, 15, 18, 20, or 25 fathoms; and, observe, as soon as your water deepens (as above), you have Balasore-roads open, and ought to haul up for them, as above directed; for in the early part of the N.E. monsoon, before the rivers (which form the different mouths of the Ganges) have emptied themselves, there are strong currents setting to the W.S.W. and S.W., which might, by inattention, horse you into deep water, probably round Point Palmiras, out of soundings, and oblige you to cross the bay, and make your passage from the eastward again.

You should (as before directed) keep under weigh all day, and work as the tide will permit, between the Western Brace and the Eastern Sea Reef, from 6 to 12 fathoms water; anchoring at night in eight fathoms upon the Tail of the Eastern Sea Reef; by which means you will keep the South Channel open, and lie in the fair way for pilots coming down that channel, which is the track generally used at this season; and they will see you much sooner by being under weigh, than if you continued to lie at anchor.

*An Account of some of the Articles of Produce which are generally
exported from Bengal.*

Opium. There are four qualities in Bengal which are exported for the consumption of the Malay coast and places to the eastward, viz. Patna, called (among the eastern people) Company's opium, being marked with their mark, thus



Benares, next in quality; the third is Rungpore; and the fourth and last quality is Boggulpore (or Bogglipore opium).

The best opium in the world is said to come from Patna, (where it is made in great quantities,) and allowed by the Malays and Chinese to be better than that which is called Turkey opium, and carried to Batavia and China by ships from Europe.

I have already mentioned (under the head of Batavia) that opium is prohibited to be imported or sold by individuals, being a monopoly of the Dutch Company; nor are individuals allowed to make or export opium in or from Bengal, except such as is bought at the Company's sales; for which quantity, being limited, they have contractors who furnish the supplies. But notwithstanding the prohibition, there are large quantities of opium made and exported from Bengal, exclusive of that sold by the East India Company.

Opium is an inspissated juice, partly resinous and partly gummy, and brought to us, at Calcutta, in cakes of from one to five pounds weight, packed in chests, (in the leaves of the poppy,) covered with hides.

It is very heavy, of a dense texture, and not dry, much resembling pitch in a half fluid state, easily receiving the impression of the finger, its colour is a very dark brown yellow, so dusky that until held up to the light it appears black; it has a dead faint smell, and its taste is very bitter and acrid. It should be chosen moderately firm, and not too soft, (as that of the years 1789-90, which was quite in a fluid state, and universally rejected by the Malays, as unmerchantable); its smell and taste should be very strong, and care should be taken, when rubbed between the fingers and thumb, that there is no roughness; for if there is, the article is thickened and adulterated with dust or stoney matter.

Opium is the juice of the poppy, with which the fields (where the article is made) are sown, as ours are with corn. When the heads begin to ripen they cut or make incisions in them, with an instrument made for the purpose, and from these wounds the opium flows; and the next day a person takes off what oozes from them, making another incision on the poppy head at the opposite side, which completes the scarification all round. What he collects he puts in a vessel which is fastened round his waist; and he thus goes round the field wounding the poppy and collecting the juice.

After they have collected the opium they moisten it with water or honey, (the latter is the best, not being so subject to evaporate or dry,) and work it a long time upon a flat smooth board, with a thick and strong instrument, made for the purpose, until it becomes of the consistence of half fluid pitch; it is then worked into rolls or cakes with the hands, and packed in the withered leaves of the poppy in chests for sale. Each chest should contain two factory maunds (of seventy-four pounds ten ounces each), or one hundred and fifty-nine pounds four ounces avoirdupois.

Those who take opium to excess soon become enervated, and look old; when deprived of it, they are faint, spiritless, and dejected, and experience the same languor as those who are in the habit of drink-

ing ardent spirituous liquors to excess, nor (like those) is it removed until they take a repetition of the dose.

In fine, opium contains gum, resin, essential oil, salt, and earthy matter; but its narcotic and somniferous qualities have been experimentally found to reside in its essential oil.

Indigo has lately become an article of great export from Bengal to Europe; it is therefore much cultivated in the provinces, and the soil agrees particularly well with the shrub; it grows to the size of a rose-tree, but has a smooth rind. The leaves, when stripped off at the proper season, are laid together, when a vegetable dew exhales from them; they are then immersed in water, contained in vessels adapted for the purpose. After the water has extracted the blue from the leaves, it is drained off; the sediment is then exposed in broad shallow vessels to the sun-beams, through the heat of which the moisture evaporates, and the indigo remains in cakes at the bottom.

Bengal produces the *Sugar Cane* in great abundance, of which they make excellent sugar and rum. The silk-worm is also reared in that country, and their fabrics of silk are excellent; but those of cotton are superior to any in the world.

Cochineal, or *Cocheneel*, has within these few years drawn the attention of many of the gentlemen of Bengal, and it has been reared by them with some degree of success, although not in sufficient quantities to make the exports considerable. As it doubtless will in a short time become an object of considerable magnitude to the merchant and planter, a short account of it may not be thought improper in this work; I will therefore attempt to give the best account I could collect from those gentlemen who had the plant and insect.

It

It is generally understood to be a drug, and used by dyers for giving red colours, especially crimson and scarlet, and for making carmine; and likewise in medicine as a cardiac, cordial, sudorific, alexipharmic, and febrifuge.

The insect was first supposed to be brought to Calcutta, by some gentleman, from Manilla, about the year 1788; since which time it has been attended to, though not in the manner such a valuable article of commerce seems to deserve. Several samples have been sent to Europe; but whether it really is of an inferior quality, or a want of knowledge in the collecting and preserving of it, I do not know, nor could I learn; but the account received of it did not answer the (perhaps too sanguine) expectations of the persons who tried the experiment.

The cochineal, in the state it is brought to us, is in small round bodies of an irregular figure, usually convex, and ridged and furrowed on one side, and concave on the other.

The colour of the best sort is a purplish grey, powdered over with a sort of white dust.

All that Europeans knew of this for a long time was, that it was gathered from certain plants in Mexico, and therefore it was naturally supposed a seed; until, in the year 1692, Father Plumier gave Pomet an account of its being an animal; and this, though disregarded at the time, has been confirmed by subsequent observations. Indeed, to confirm the point, we need seek no further than the means now in our hands; but if it required further proofs, we need only moisten and soak in water or vinegar, a number of cochineals until they are swelled and distended, to know that every one is more or less the perfect body of an insect. The most imperfect and mutilated specimens always shew the rings of the body; and from observing others, it will be easy to find the number and disposition of the legs; parts, or even whole ones, being left on several, and often complete

complete pairs. In this way, the legs, antennæ, and proboscis, may be discovered.

This insect much resembles what we call the lady-bird (or lady-cow), and is called by the Manillians, *Vacca de Sant Antonia* (or St. Anthony's cow). They gather it in the woods, where it lives, grows, and multiplies exceedingly, upon the uncultivated nopal prickly pear, or milk bush; which grows all over India in great abundance. As they gather it, they brush it from the leaves with a feather into an earthen pot, and afterwards kill it, by spreading it upon sheets of heated copper: by this process the beautiful colour is prevented from evaporating, of which it loses much by being allowed to die naturally in the earthen vessel or upon the leaves. And although that which is collected dead from the leaves is sold cheaper, there is no advantage in using it, as it requires a greater quantity to give the dye.

A P L A N,

FOR A SHIP ENGAGED IN THE RICE TRADE FROM CALCUTTA
TO MADRAS.

THE best sized ship for this trade is a long, low, broad ship, that will carry about ten or twelve thousand bags of rice; and draw only seventeen or eighteen feet water, by which means she might occasionally load all her cargo at Calcutta. And such a ship may be navigated with very little additional expence, on the same terms of a ship carrying only seven thousand bags.

The reasons for having a ship particularly built for this trade, must appear obvious to every person who knows the trade of India, the
qualities

qualities a ship should have, and the navigation she has to engage with, as well shoal water in Calcutta (or the Hoogly) rivers, as short seas, and sometimes violent blowing weather, when beating against the S.W. monsoon, in the Bay of Bengal.

To answer the queries that naturally arise from the described qualities of the ship I propose, I would first have her a long ship; by which means she becomes proportionally a broad ship. She must, for the above reason, be a long ship, which will also add very considerably to her facility of sailing, and make her easier in those short chopping seas, which she invariably meets with in the Bay of Bengal, when beating against the S.W. monsoon.

I would next have her a broad ship, proportionable, or rather exceeding the proportion of her length, that she might carry her cargo easy, and load well; for rice being nearly as heavy as sand, ships do not require such an extraordinary quantity of room as if they were to take on board gruff goods as cargo, which would require more room for stowage; with this advantage, also, her breadth adds to her stiffness; she will consequently require a smaller quantity of ballast, which for large ships costs a great deal of money, reduces considerably the profits of the voyage, and invariably occasions much delay in Madras-roads, (as well as much trouble in shifting ship *), there being but

* Shifting ship, is a technical term used for changing cargo for ballast, or ballast for cargo, keeping a sufficient quantity of either, or dead weight, in the ship's bottom, to prevent her liability to overset, as very few ships will stand upon their legs (or upright) without some considerable weight in the bottom, particularly sharp fast-sailing ships. The Company's ships all carry a proportion of kentledge (or iron ballast) to make them stiff, and to shift easier, though I only think it useful to their China ships, who load all gruff goods home. The coast and bay ships can be made sufficiently stiff with salt-petre from Calcutta; and the Bombay ships, which fill up with pepper on the Malabar coast, might have saltpetre sent to Bombay by the country ships, at a less expence than the Company pay the ship owners for carrying useless, unprofitable kentledge. The Bencoolen ships might be supplied with saltpetre by the same mode upon country ships.

a proportion of Mafoola boats allowed to each ship, according to the number of ships in the roads.

I would have her a low ship for these reasons :

By being low it adds to her stiffness, not exposing so much top-hamper (as it is called) above the bends to make her crank, (liable to heel or overset easily,) being the reverse of stiff. She will, therefore, require little ballast, perhaps none, which will facilitate dispatch both in loading and unloading.

She will consequently be more weatherly, which is particularly requisite in a ship which has to make four or more beating passages against the monsoons annually.

There are many other good qualities attached to a long, low, broad ship, which, from what has been observed, must be obvious to the discerning navigator.

But suppose we have a ship every way suiting the plan, for a rice ship; the voyage should be so planned as to make her carry four rice cargoes annually from the Hoogly to Madras.

To effect this, we suppose the ship capable of loading ten thousand bags of rice, at seventeen feet draft of water, all of which she may take in at Calcutta; or eleven thousand, at eighteen feet draft of water, which she may take in at Kedjerree.

In peaceable times I would navigate her, if possible, with European seamen, by the run, as the colliers are navigated to the Thames; but supposing those kind of seamen are not to be had, we must have recourse to the native lascars; who I trust, before this time, are better regulated than hitherto, as none would go a voyage of one month, unless they received four months advance; and upon their arrival, they consider the extra wages forfeited, and their time expired. Custom in some measure made this a law; they never worked the time out, and if detained, they found opportunities of deserting, to the loss of the owners, and frequent detention of the ship; for it requires from a month to six weeks to collect men for a ship of any
consider-

considerable burthen; and longer time if many ships are fitting out together.

But we suppose that we have our ship loaded and manned the 1st of January, and that she leaves the pilot the 5th, and arrives at Madras the 10th. I will endeavour to allow sufficient time for every thing to be done in this voyage; and, barring accidents, have time to spare.

This being a dead season of the year at Madras, and few (if any) ships in the roads, she ought to sail from thence the 1st of February; at which time the southerly winds and northerly currents begin to creep along the Coromandel and Golconda coasts; and the ship should, in consequence, keep close along the shore, without going into Petapolly or Masulapatam bays; and she will make her passage in ten days, arriving the 10th of February, say the 15th. This ends the first, and probably the quickest voyage.

The lascars are now to be well-looked after, to prevent desertion. For the reasons given before, and as a further security, the ship should not go above Cox's Island; or say Kedjerree, on the opposite shore.

Her cargo being down in floops, or burrs, (at this fine season,) she ought to be loaded in fifteen days, and leave the pilot on the 5th of March. By taking the eastern range, prescribed in my Directions, she will be at Madras in ten or twelve days, say fifteen, that is on the 20th of March. We will now (as there are more ships in the roads) allow her one month to unload and take in ballast and water, when she will sail the 20th of April, and get to Kedjerree the 25th of April, (ending her second voyage), where her cargo is to be in floops, and a fresh crew of lascars ready to go on board. The weather now begins to be bad for loading of ships, and probably the river floops will not be fond of coming out of Kedjerree; we will, therefore, allow her one month to load, and say she will leave the pilot the 1st of June, which is allowing great time.

She has now to work against the S.W. monsoon, and will therefore require time. I may say, with confidence, she will arrive the 20th of June, but say the 1st of July, at Madras. Our European ships will probably be there at this time, and boats will be difficult to be had; we will therefore allow her to the 5th of August to leave the roads; and having a fair wind she will be at Kedjerree the 10th of August, ending her third voyage. The weather being pretty well settled, her cargo ought to be on board and leave the pilot the 15th of September; and keeping close along the shores of Orixá, Golconda, and Coromandel, in the strong southerly currents, occasioned by the rivers emptying themselves after the inundations, particularly the Ganges and Kistna rivers, she will make a passage to Madras in ten days, arriving the 25th of September. Every dispatch is to be used now to get the ship clear, as the monsoon changes upon the full moon in October, which is generally attended with a gale of wind, and frequently does much damage in Madras-roads; but ships attending to the weather, sea, and surf, may always avoid it; as the gale comes first off the land, which enables ships to run a few leagues off to sea, and there heave too, until the gale is over. In consequence of those heavy gales at the change of the monsoon, upon the Coromandel coast, the underwriters in India, viz. Calcutta, Madras, and Bombay, have agreed, and the custom is admitted, though omitted and not entered in the policy, that all risk ceases from the 16th of October to the 15th of December upon these coasts, from Cape Comorin to Point Palmiras.

I think, with dispatch, the ship may be cleared in one month, and leave Madras in sufficient time to save her insurance (the 16th of October): and as she has now to beat up against strong currents and the N.E. monsoon, she must take a large eastern range, though I would not advise her to go farther than three and a-half or four degrees to the eastward of Point Palmiras; for about the meridian of the point, and three degrees to the eastward, you generally find an eddy,

eddy, from the great current which sets along shore to the southward, or counter current, draining up to the northward; which, when she has found, by increasing her latitude more than the log will give, she ought to keep in by short tacks, that she may not overshoot the limits (which are narrow) in which this favourable stream runs.

Having left Madras, probably with light breezes, she will be set far to the southward before she loses this southerly current; we must on that account allow her to the 25th of November to get to Calcutta, (as she ought now to go up to town,) say the 1st of December; and not having in this busy voyage time to examine the rigging, there should be extra, or batta, lascars employed to overhaul it. Take in the cargo, and prepare the ship for sea, while the Serang (or native boatswain), whose duty it is to ship and provide lascars, is getting your crew; and ought to be ready to sail again on the 1st of January, commencing your voyage regularly.

By this Plan, a ship (as described) would land annually at Madras forty thousand bags of rice, which, at two and a-half rupees per bag freight (or profit), and which is a low average upon the Calcutta and coast prices, would amount to one lack (or one hundred thousand rupees); which, supposing the ship to sail at two thousand rupees per month, leaves a nett profit to the owners of seventy-six thousand rupees, which, at two and sixpence the rupee, is nine thousand five hundred pounds sterling.

The business of buying and selling is done by a set of people, called fircars, who are immediately connected with, and subordinate to, a richer man of the same class, who is complimented with the name of banyan, shroff, or banker.

Their characters I will state under the general name of their tribe.

THE HINDOOS

Are effeminate and luxurious, and, by education, taught to affect a grave deportment. This naturally initiates them early into the arts of dissimulation; so that they can caress those they hate, and even behave with the greatest affability and kindness to such as they would wish to be deprived of existence.

Thus educated, they seldom scold or wrangle; and I never remember to have seen two Hindoos fight, or even strike each other.

Their common method of salutation (the salam) is performed by lifting one or both hands to the head, according to the quality of the person saluted; but they never use the left hand singly, as that is a mark of the greatest disrespect.

Their manner of drinking is remarkable—they religiously avoid touching the vessel which contains the liquor with their lips, but pour it into their mouths, holding the vessel at a considerable distance above their head. Their idea is, that they would be polluted by drinking stagnant water, which they do not consider to be such while it runs from the vessel; they will therefore drink from a pump or running stream, but not from a tub, a cask, or a pool.

From their temper and tenets, as well as from the authorities of ancient historians, it appears more than probable that the same kind of garments, food, furniture, building, and manners in general, which prevailed among their progenitors some thousand years ago, actually prevail among the Hindoo tribes to this day; so little are these people slaves to fashion.

To sum up their general character in few words; they are gentle, patient, temperate, regular in their lives, charitable, and strict observers
of

of their religious ceremonies. They are superstitious, effeminate, avaricious, and crafty; deceitful and dishonest in their dealings, void of every principle of honour, generosity, or gratitude. Gain is their predominant principle; and as a part of their gains, bestowed in gifts to their priests or charities to the poor, will procure their pardon, they can cheat without fearing the anger of their gods.

Such is the character of the fircars, who principally transact business for all the European merchants in Bengal.

(22)

A P L A N

OF A

V O Y A G E

TO THE

P E D I R C O A S T,

FOR A VESSEL ABLE TO CONTAIN 2000 OR 3000 BAGS OF RICE,
OR FROM 150 TO 200 TONS.

FIRST, let us suppose the ship to be fitted-out from Calcutta, and ready to sail (immediately after the Company's first opium sales) the 15th of January, and leave the pilot the 20th, supplied with a choice investment for the coast, and say twenty chests of opium.

She has a prospect of getting the Company's freight opium to Pinang, and perhaps to Batavia: the latter pays thirty, the former ten rupees per chest, and would be an object for a ship of the above size, equal to foregoing her coast voyage.

But suppose that the owner has not interest to get these freights, let us pursue our original plan. From Calcutta, let her push for Junk Ceylon, where she will sell her rice (ballast) to advantage; and, perhaps, receive one or two hundred bloars of tin. But she

she is not to lose time if she cannot get assisted by country boats, (which is seldom the case,) but push on to Pooloo Pinang (the inside passage), and endeavour to supply that island with any Bengal goods that are in demand and they want; using every means to find what goods are in demand on the Pedir coast, and reserve them for your own purchase (or barter). For the goods you dispose of at Pinang, take equal quantities of dollars, and Acheen gold-dust (if to be had, if not, take the best you can get; Jambie is the next quality). Sail from Pinang, and go directly to Tellofomoy; send one boat to Courtoy, and you will soon find out what goods they want, and what they have to give in return: chickney and pepper are the things you want. Play them off, and ask for white beetle-nut, (as you may be assured there is not one hundred bhar on the coast at this season); then ask for red-nut, which is not so scarce; but demand sufficient to load your vessel: if you get it, return to Pinang and sell, or send it to Pegue, by chartering a large ship to bring your returns: yet this defeats the intent of the Plan, and I only mention it eventually, to shew you cannot be disappointed in the returns the coast may supply; and as it is very improbable, the getting nut gives you the advantage of the staples they have. Suppose you succeed in getting chickney and pepper, with some red-nut, you try every other place on the coast to complete your cargo, and if you do not at Acheen, run round to Sufoo, and Labon Hodgee; there are many other places of trade between Acheen Head and Labon Hodgee; but as I suppose the executive agent to have a knowledge of them, as well as the places on the Pedir coast, I omit particulars, where we are to close the first returning cargo, and proceed to the weathermost port on the coast of Coromandel, say Negapatam, for a market, or say Porto Nova, Pondicherry, or even Madras. The agent, or commander of your ship, wants no memorandum to remind him of the necessity of finding what coast goods are in demand, and supply himself with them, as returns for his chickney and pepper;

pepper; and leaving the coast with all possible dispatch, get to Soosoo or Labon Hodgee, or any port on the west coast; and as the object of your voyage is now changed, you are to supply yourself with gold, pepper, and white-nut. Should you find any difficulty in fetching far enough to windward on the west coast, lose no time, but push for Acheen, where you will, in all probability, sell goods and receive gold (or cargo). If you are ballasted with salt from the Coromandel coast, endeavour to sell it before you go on the Pedir coast. I now suppose you have left Acheen and arrived at Pedir, and having tried the place of trade on that coast, as far as Tellofomoy and Courtoy, run over for Pinang with your nut, pepper, wax, &c. &c. staples for the China market.

Now let us suppose the market at Pinang will not admit of an advantageous sale, and you have little, perhaps no funds left. You should have a credit at that place for as many dollars, to be invested in gold and goods, as will re-load your ship with the articles you know, from experience, to be in greatest plenty; and as you have little time to lose, go over, as before, to Tellofomoy, and run that coast down to Pedir, only investing, as before, for the China market. You must go back to Tellofomoy, for the purpose of fetching over to Pinang, by which you will have an opportunity of filling up, and finding what remains on the coast, as well as getting the necessary information of what they want for your Pinang investment. Let us suppose, on your arrival at Pinang, that none of the Indiamen bound to China have passed, and that your first cargo is on hand; you must land your second, and borrow money on the deposit. For your return to the coast lose no time, as the sale of this trip depends on dispatch. Go to Tellofomoy and down to Pedir; return again to Tellofomoy, and if not full run for Battabarra, and fill up with canes and rattans, and again to Pinang, where we may now say you have three cargoes for the Indiamen; wait their arrival and sell them yourself;

you

you will save five per cent. commission on the sales, which you will find is an object.

Having sold your cargoes, paid your debts, and released your credit, keep no more funds than you want to load nut for Bengal, and remit the remainder to discharge your bonds; or purchase opium in the event of being late on the coast, and go once more to Tellofomoy and down the coast of Pedir; and if you do not fill up, keep on to Acheen, and round to Soosoo, &c. &c. for wax, pepper, benjamin, and elephants teeth, for Bengal. Having filled up, proceed to Bengal; but, if not full, first to Pinang. Fill up with what you can get on account or freight, and run to Bengal; if early, call into Junk Ceylon, if not, run by and save time.

Now, suppose you leave the Bengal pilot the 20th of January, and arrive at Junk Ceylon the 5th of February, 15 days, (a great allowance); say you are here five days, and sail the 10th, arrive at Pinang the 15th, and sail the 20th; arrive at Tellofomoy the 25th, and having a fair wind, I will allow you to the 15th of March to get to Acheen, and the 25th to Soosoo. Sail for the coast the 5th of April, and arrive at any port on the coast the 20th; sail the 1st of May, and get to Tellofomoy the 15th of June, to Pinang the 20th, and sail the 25th; arrive at Tellofomoy the 1st of July, and arrive at Pinang the 5th of August; sail the 10th, and going over the same track, and to Battabarra, arrive the 20th of September; sail the 1st of October, going down the coast, and to Soosoo, and returning to Pinang, arrive the 5th of December; sail the 8th, and arrive at Calcutta the 1st of January, this leaves you 15 days to ship your lascars, and pursue the same track.

JUNK CEYLON.

Being bound into Junk Ceylon, you may go to the northward of Pooloo Raja. Between Pooloo Raja and the Brothers, or to the southward of the Brothers, keep along the islands to the northward, and pass any where within three quarters of a mile from the shore, having no danger but what is above water. Having Pooloo Raja S. three-quarters W., steer in N. or N. half W. until Point Capall bears E. half S.; then haul in W. half S. for Junk Ceylon Roads, and anchor in four fathoms; or having Pooloo Capall N.E. three-quarters E., Pooloo Tullore S.E. by E. three-quarters E., haul up for the Roads N.W. half N. keeping along the white sandy beach of the Great Lolland.

This is so inconsiderable a place of trade, since the establishment of Pooloo Pinang, or Prince of Wales's Island, that it is not worth the attention of a merchant to call here. All their trade is taken away by the prows and small craft belonging to that island.

The bhar of this place should be 509lbs. avoirdupois.

QUEDA

Was formerly a place of considerable trade, before the establishment of Pooloo Pinang, since which time the prows and small craft of that island have carried all the trade there, for the european and country ships going to China.

When going on shore you land on the starboard hand, or east side of the river, and the Captain Chinaman will report your arrival to the Shabundar, who will introduce you to the King. You must not neglect to carry a present with you, according to the quantity of

goods you expect to sell; which will be but small, as Queda is constantly well supplied from Pooloo Pinang. However, your present should be genteel, and do not forget the Captain Chinaman and Shabundar, as they can be of great service to you, and inform you of all the customs, as well as the markets; and whether any thing is likely to be done.

They weigh here by the dotchin (or wooden steelyards), and four hundred and twenty four pounds avoirdupois is the bhar; but they have scales and weights; or you may weigh by your own.

The duties here are two and a-half per cent., and the most reasonable of any port on the Malay Coast, or to the eastward; and the fewest impositions.

Beware of dealing with the Malabars who reside here, for they are invariably cheats; and not only here, but in every port to the eastward where they are found.

The produce of Queda is, tin, pepper, elephants teeth, wax, &c.; and the imports the same as to other Malay ports; opium and Spanish dollars forming the principal part of your cargo: for the latter you are certain of procuring a cargo, if it is to be had; and frequently a few chests of opium will bring a good price.

I would advise a ship, on her returning voyage to Calcutta, to call at Salangore, Pooloo Pinang, Queda, and Junkceylon, if she has any time; for sometimes, at the end of the season, she may collect some tin, pepper, wax, beetle-nut, elephants teeth, and rattans, for the Bengal market. I would even recommend her to leave the coast of Pedir a fortnight or twenty days sooner than she otherwise would, in order to try these places.

It is to be observed, that I speak of the vessel trading from Calcutta to the Pedir Coast; and whose Plan, for a trading voyage, I have already laid down.

POOLOO PINANG; OR PRINCE OF WALES'S ISLAND.

Since the establishment of this island, as a place of trade, by the English, it having been granted to them by the King of Queda, it is become a very considerable market for every produce of the Malay coast, particularly for such staples as answer the Chinese market, and has nearly ruined the Malacca merchants, whose principal trade is gone.

Almost all the country ships bound to the eastward, particularly those for China, touch here, where they refresh and purchase such articles of trade as they have room for, and they think will suit the market.

The East India Company's ships from Bombay and the coast of Coromandel, (bound to China,) touch here, and take in great quantities of tin, canes, rattans, sago, pepper, beetle nut, tripong, (beech de mar, or sea swallow), birds nests, &c. &c. for the China market, as well as dunnage for their teas to Europe. The trade being chiefly in the hands of British merchants it requires little description.

The harbour is large, safe, and clear of dangers; the access to it easy; and there is an excellent outlet to the southward; but it will be necessary to have a pilot for this channel from the island.

In this place, since the establishment of the colony in the year 1785, by Captain Francis Light, to whom it was given by the King of Queda, centres all the trade of the Straits of Malacca, from Junkceylon even to Tringano, and from Acheen to Palambang along the coast of Pedir on the island of Sumatra.

SALANGORE.

Having recommended the ship from the Pedir Coast to call at Salangore, it is necessary I should give some account of it.

It is one of those places whose trade (as well as Queda and Junkceylon) chiefly centers in Pooloo Pinang; yet after the ships for China leave the latter island late in the season, they may have some trade collected: at all events it is worth the trial, and nothing of consequence out of her way, particularly if from Battabarra or Tellofomoy.

Upon your arrival at Salangore, your first visit (as in most places upon the Malay coast) is to the Shabundar, at his house on the right-hand side of the river as you go in; from thence he introduces you to the Rajah, and also to the Rajah Syed. The next day you bring your musters on shore, and having made your bargain (to sell), you may bring your vessel into the river, for the convenience of receiving your returns, (if you have any time to spare), and moor off the Shabundar's house. You are perfectly safe in this port, while in the river; and it is the only port upon the Malay coast, except Tringano, where you are free from apprehensions for your life and property. But lying in the roads, it will be necessary to be alert, and ready to repel any attack made by the straggling prows that are always about, and ready to take advantage of any inattention; you should not therefore suffer any prows to come near after dark. It never has been known that any accident happened in the river of Salangore by a ship being cut off, as the Rajah finds it his interest to establish a good name to the port.

Coming into the river of Salangore, steer for the look-out house, keeping it rather on the larboard bow, and the river's mouth fairly open. The soundings are mud; and if you should touch the ground you have nothing to fear.

Since

Since writing the above, I have been told the Dutch have sunk large stones across the entrance of the river, which should be guarded against.

The fishing stakes you may run between, only observe to keep clear of those to which the nets are attached, as they being pretty strong may hurt your copper; and besides you do the fishermen a wanton damage, which they will not easily forget.

Should there be any buggefs prows in the river, avoid making any private bargains with them, as the king does not allow any to trade with them, or the Chinese. He monopolises all this trade himself, and if he finds it out, which he is certain of doing by his informers, he will ever after give a preference in trade to any body else than you.

The buggefs prows import, at Salangore, pepper, cloves, wild nutmegs, wax, nutmeg oil, rattans, dammer, wood, oil, &c. &c.

From a large river near Salangore, called Burnum, are brought great quantities of long rattans. Choose your rattans long, thick, and clear, and reject all that are black or small; for though you purchase by tale, or number, you sell them at Canton by weight.

In choosing your tin, at Salangore, Queda, or Junkceylon, give the preference to the tompong, or small piece, as the slabs are frequently adulterated with dross, stones, lead, and iron shot.

The presents at Salangore are many, though not so valuable as at Acheen; and you will find it much to your interest to keep on good terms with the Shabundar, and Mette Motta (or Weighmaster).

The bhar at this place is only three Chinese pecul, of one hundred and thirty-three and one-third pounds, or four hundred pounds avoirdupois.

In making your bargain insist upon having your tin weighed by your own weights; as their dotchin is generally short of the weight you ought to receive: and agree for so many bhar per chest of opium, at so many Spanish dollars per bhar. Endeavour to find out which

is most plentiful, tin or dollars; and agree, if possible, to be free from all duties.

Should you sell for gold, be very cautious, as it is generally very bad. I would not advise you to receive any but what is examined by a touchadore, and then have the king's chop upon it.

Of opium, if fresh and new, they will not weigh above a chest or two; if it is not fresh they will weigh every chest; and it ought to be one hundred cattys (or a Chinese pecul). Should it be dry and weigh less, the deficiency must be made up; though if three or four cattys more (which fresh opium will sometimes weigh), they do not suffer you to take the exceeds.

MALACCA,

Before the establishment of Pooloo Pinang, was the principal place of trade in the Straits of Malacca, (from which place the Straits take their name). All ships passing for China used to call here, as well for the purpose of trade, as to fill up their water and take in refreshments.

This place is supplied with grain from Bengal, Java, and Sumatra; but it has the finest yams of any produced in India. It has a variety of fruits, and particularly the mangosteen, which is a very delicious one.

The trade of this place is supplied by all the produce of the Straits and eastern ports, such as tin, pepper, tripong, sago, rattans, canes, elephants teeth, &c.

Sheep and bullocks are scarce here, but there are buffaloes, hogs, poultry, and fish, in great plenty; and in general very cheap.

The roads are large and safe, and the best in India; but you go into the river to land, the entrance of which is rendered intricate by a bar,

a bar, over which boats cannot pass before first quarter flood, nor after last quarter ebb, except with much difficulty.

The Price Current of the China market should be your guide in making your purchases here, as it will not be worth the risk and trouble if they will not yield from fifteen to eighteen per cent.

There are a few private merchants here, but the Governor, Fiscal, and Shabundar, are the principal dealers; and should you deal with the private merchants, agree with them to pay the duties, customs, boat hire, and all charges to the ship.

The measure at Malacca for grain is a ganton (or forty peculs); but for sago, the ganton will seldom weigh more than thirty-two peculs: this difference is a great object, for though you buy your sago by measure here, you sell it by weight in China.

Should you purchase any beetle nut here, or at any other place, observe that it is new and free from holes, dust, or worms; and have good bags to put it in if for the China market, as those you get here are mat bags, made of bulrushes or flags, and soon fall to pieces by handling and moving: the same caution is to be used in packing your sago.

Should you purchase baroose camphor, commonly called native camphor, you should pack it closely in boxes, or it will evaporate and lose much of its weight: but, before you send it on shore at Canton, let it be packed in fine light stuff, as the Emperor allows ten per cent. discount upon the weights: and goods in these kind of packages have the same allowance as if packed in wine chests.

The East India Company's ships used formerly to call here to refresh and purchase trade for China; but our own settlement of Pooloo Pinang has effectually superseded the necessity of their continuing to do so; as they find, upon their arrival at the latter place, that their trade is more certainly provided, and in larger quantities; the merchants not being cramped by the monopolizing spirit

of

of the Dutch; who allow no competition in trade if the government officers can manage the whole.

The country ships from Calcutta to the Malay coast, (with opium, piece goods, and dollars,) ballast with rice, which, if they do not dispose of at Junkceylon or Pooloo Pinang, they sell here, and ballast with sand, or a gravelly red stone. This is a great market for piece goods; but opium is sold to the Governor (only), for the Company's account; any sold to private merchants was delivered to their boats, and generally landed on one of the water islands (called Blymbing), for which you are paid in Spanish dollars before it is delivered, as the merchant smuggles it at his own risk *.

SIAM.

The English know so little of this place and its trade that it will require a particular description, as the traffick may be much improved, particularly for the import and consumption of British manufactures, such as broad-cloths, cutlery, ironmongery, jewelry, and toys.

The Portuguese have principally enjoyed the trade and profits of this place. There have been some speculations made by British merchants from Calcutta, and which always turned out to advantage.

The Menam (the chief river) by which ships enter Siam, discharges itself into the Gulf of Siam, and is rendered difficult of access, on account of a bar; to cross which it is necessary to have a pilot.

The winter here is dry, and the summer wet, occasioned by the different monsoons, which act here as in the Bay of Bengal, viz. the north-easterly monsoon bringing in dry, and the

* For an account of TRINGANO, see page 124.

south-westerly monsoon bringing in heavy clouds, thick weather, and rain.

The southerly monsoon is therefore the season for ships to go to Siam, as it is a fair wind to cross the bar; and the northerly monsoon to leave the bar, and proceed to India through the Straits of Malacca.

Bankasoy, situated on the river near the bar, is the principal place of trade; and the King is the chief merchant, for his revenues are paid in elephants teeth, sapan, and aquilla wood. This is the best part of the Malay coast for procuring that exquisite sauce, called ballichong, which the eastern epicures so much seek, value, and regale upon: it is made of a composition of dried shrimps, pepper, salt, seaweed, &c. &c. beaten together to the consistence of a tough paste; and then packed in jars for sale, use, or exportation.

Siam, near the shores, (the only places where European traders have access to,) is very unhealthy. The land seems to be formed by the mud descending from the mountains; to which mud, and the overflowings of the river, the soil owes its fertility; for in the higher places, and parts remote from the inundation, all is dried and burnt up by the sun, soon after the periodical rains are over.

The arts have been in more repute, and better attended to formerly, than at the present time. Few travellers will omit noticing the many casts at this place, both of statues, and cannon of an immense caliber and length, as well as many other curiosities, many of them in gold.

The mountains produce diamonds of an excellent water, (little if at all inferior to those of Golconda, though not so large,) sapphires, rubies, and agates.

They have tin of a very fine quality, of which they make tutenague; steel, iron, lead, and gold: they have copper also of a fine quality, but not in great plenty.

The low grounds produce rice in great quantities; and on the higher

higher grounds, that are not inundated, they raise wheat. They have many medicinal plants and gums, oil of jessamin, lack, benzoin, crystal, emery, antimony, cotton, wood oil, varnish, cinnamon, cassia, cassia buds, and iron wood, which is much used by the natives, Malays, and Chinese, as anchors for their vessels. They have also a great quantity of white beetle nut, which is exported to China, by the junks and Portuguese ships, who have enjoyed almost uninterruptedly the whole trade of this place, and the coast of Cochin China, from the Ridang Islands to Macao.

They have also the fruits known in India, as well as the durian, mangosteen, and tamarind, which are remarkable for thriving here.

The animals are, horses, oxen, buffaloes, sheep, and goats, tygers, elephants, rhinoceroses, deer, and some hares.

There is poultry in great abundance, with peacocks, pigeons, partridges, snipes, parrots, and many other birds.

They have insects and vermin, as peculiar to other parts of India.

The sea yields them excellent fish of all kinds, particularly flounders, which are dried and exported to all the eastern ports; and they have extraordinary fine lobsters, small turtles, and oysters. Here too are very fine river fish, particularly the beatie (or cockup), silver eels of a very large size; and mangoe fish, so much esteemed in Calcutta.

From the humidity of the soil, it is almost unnecessary to observe, that the chief disorders, to which Europeans are subject, are, fluxes, dysenteries, fevers, and agues.

No private merchant here dare trade in tin, tutenague, elephants teeth, lead, or sapan wood, without leave from the king, which permission is seldom granted; as he monopolises these articles to himself, and pays in them for any goods he purchases, at the highest prices they will bring at most markets in India.

The following are the general prices for elephants teeth from the king in payment:

2 teeth to the pecul, equal to	120 ticalls.
3 ditto ditto	112 ditto.
4 ditto ditto	104 ditto.
5 ditto ditto	96 ditto.
6 ditto ditto	88 ditto.
7 ditto ditto	80 ditto.
8 ditto ditto	72 ditto.
9 ditto ditto	64 ditto.
10 ditto ditto	56 ditto.
11 ditto ditto	48 ditto.
12 ditto ditto	40 ditto.
13 ditto to 20 or 30 ditto	32 ditto.

thus falling eight ticalls in each pecul, as the number of teeth increases. But if you purchase with ready money, instead of receiving them in barter (or payment) for goods, you will buy each quality eight ticalls per pecul cheaper than the above prices; and still lower, if you have permission to trade with the Xtians, or private merchants.

In purchasing japan wood, it is customary to allow five catty per pecul for loss of weight; and as each draft is weighed by the large, or five pecul dotchin, you are allowed 525 catty; which, if it is the first fort, should not be more than 16 to 18 pieces: second fort runs 22 to 24 pieces; and as the number of pieces increase, the price falls in proportion.

After you have settled with the ministers what part of your cargo the king is to have, (which is commonly called a present, unless he asks particularly to buy any thing,) some of the principal merchants of the place are called to value them; and as they are valued, you are paid, by the king as a present, in the forementioned goods, at the highest prices they will bear.

It

It may not be deemed superfluous here to observe that a complaisant behaviour, and a cheerfulness of disposition, are absolutely necessary, particularly if you have (as all traders must have) a point to carry. Presents, (as they are called,) but in grosser language bribes, properly applied, gives the officers of government and people in power the true tone and relish to serve you, as you will have frequent occasion to call upon them in their official capacities.

Every application for a permit to purchase any description of goods costs ten and a-half ticalls: this permit only serves for one house, and one time of weighing: so that, if you are about receiving any quantity of goods of the same quality from different merchants, agree with them to send it all to one house, and make one day for weighing off the whole in the merchant's name at whose house it is weighed. This mode will save the expence of a multiplicity of permits, and quicken dispatch. Upon each of these weighing days you must have three of the King's writers, the first and second Shabundar, and the Linguist: to each of these, daily, you pay one-quarter ticall; but it will be your interest to give them some trifling presents.

Elephants teeth, tin, sapan wood, and lead, purchased from the King, are free of all customs; but if bought from private merchants they pay as follows:

Elephants teeth, (any sort),	4	ticalls per pecul.
Tin, — —	2	ditto per bhar.
Sapan wood, — —	4	ditto per 100 pecul.
Lead, — —	2	mace per bhar.

If from any part of India, (as Bengal, the Coromandel, Malabar, or Guzerat coasts, Bombay, Surat, &c.) you pay the following customs before you sail:

Measurage, if above three fathoms, or eighteen feet beam, to the King, 10 ticalls.

To the Barcola, (or first Shabundar,) 10 ticalls.

To

To the second Shabundar, 10 ticalls.

For your arrival at the bar, $10\frac{1}{2}$ ticalls.

To pilots, and entrance, $10\frac{1}{2}$ ticalls.

To pass the two tobangoes (or chop-houses) each $10\frac{1}{2}$ ticalls.

To each permit, $10\frac{1}{2}$ ticalls.

To a permit to measure, $10\frac{1}{2}$ ticalls.

To a permit to open your bales, 12 ticalls.

To a permit for leave to sell, $10\frac{1}{2}$ ticalls.

And on going away, to each of the two tobangoes, 20 ticalls.

At the place where they insist on your landing your guns 20 ticalls; with some other charges which are trifling.

The duties upon your imports are eight per cent., except dates, kismiffes, almonds, and some other trifles which are excused.

Vessels from Malacca, Palambang, Banca, Batavia, Tringano, Cambodia, Cochin China, and their coasts, pay neither duties nor customs on their goods; they only pay,

For registering inwards, $1\frac{1}{2}$ ticall.

Two permits to pass the tobangoes, each $10\frac{1}{2}$ ticalls.

If the vessel has no goods she will pay one ticall per coid (of $14\frac{1}{2}$ inches) for her breadth of beam; but if she has trade she pays two ticalls per coid.

I would advise all vessels from India, going to Siam, to take a fresh port clearance from Malacca; as it must appear obvious the great indulgences she will enjoy, and the saving in the measurement and charges.

GENERAL INSTRUCTIONS

REGARDING EASTERN VOYAGES.

THE principal plan of a voyage to the Malay coast and the eastward, being to procure tin and pepper for the China market; and Banca being the only place which produces tin in such quantities as to insure success, though not sufficient to load all the ships which speculate in opium and piece goods to the Malay coast and the eastward; it may, therefore, be thought requisite to lay some other plan, that all the ships which carry those articles of trade (being staples of Bengal) may not meet at the same market.

I have already laid before the merchant a Plan for the Coast of Pedir; a Plan for a Banca voyage; and spoken of the opium ships running down the west coast of Sumatra, where Bencoolen will be her last port upon that coast. From thence she proceeds to Batavia, where, if she does not meet with a ready sale, she should go on to Boetan; failing of a sale here, she should go to Barroos, in Buggies Bay; from hence to Sambava, where there are many articles for the China market; from hence she may go on the north-west coast of Borneo, and calling at all the different ports, such as mentioned in my former Plan, taking the southern ports first, viz. Succadanna, Pontianna, Momparva (or Mompava), Sambafs, and Borneo Proper.

Momparva is one of the best markets to the eastward for opium, the consumption of which place, and its dependencies, being at least five hundred chests of opium per annum. Sambafs is the next best place for a certain sale, the consumption being rather more than at Momparva. Succadanna is also an excellent market, particularly if you happen to be an early ship.

At

At all these southern ports you will get gold, some pepper, and rattans for your opium; and, in barter for your piece goods at Borneo Proper, you will receive pepper, wax, rattans, mother of pearl (teapoy) shells, with many other articles of trade for the China market, which will return a very handsome profit.

While upon the coast of Borneo, be particularly cautious, and always ready to repel an attack, for your ship is never safe; and when at Borneo Proper, be careful of venturing on shore; and upon no account whatever be persuaded to take your ship into the river. They will anxiously wish you to go in for the purpose of dispatch in loading your vessel; but it is doubtless (and has been too often proved) for the purpose of dispatching you and your officers, and getting possession of your ship and cargo: the former of which they dispose of either to the Spaniards at Manilla, the Javans, or burn her to procure the iron; the latter they use and dispose of among themselves, the Rajah having the largest proportion for conniving at their infamous practices.

Having finished your trade upon the coast of Borneo, proceed to Canton, and follow the directions already given for your conduct.

Should your ship be small, or your pepper, rattans, &c. not in sufficient quantity, so as to make it an object, (having no particular investment to take from Canton), I would advise you to lie about Linting For or Large Bay, until some of the East Indiamen from Europe arrive in Macao-roads, and load your cargo for the Canton market upon them; as the commanders will carry it to Whampoa for one per cent., and you will thereby save the duties, customs, measurement of your ship, and Emperor's present, which will be a very considerable saving to the voyage.

Your long-boat equipped, as before described, and prepared as for the Malay coast, except that she need not be so abundantly armed, may go to and from Whampoa at any time, to bring you, from Lark Bay, such stores as you or your ship may be in need of; only using
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the precaution of passing the Bocca Tigris (or Mouth of the Tigris) by night, as this will save trouble and anxiety; though I never knew of any ship's boat being stopped by the Chinese passing or repassing the Bocca. In the year 1790, when three vessels lay in Lark Bay, with opium and furs, boats used to go to and from them every week, unmolested and unnoticed.

Let us now suppose that merchants have employed ships with full investments for these different tracks already mentioned. There is still a good market for one or more early ships with opium. Let us suppose, instead of going by any of the foregoing ports to Banca or Batavia, they try the southern ports mentioned, upon the west and north-west side of Borneo, and then cross over to Tringano, where two or more ships will fill with pepper; or that towards the latter end of the season, suppose we say the 10th of September, they run over to Borneo Proper, and fill up there with pepper, &c. &c., and then proceed to Canton; all, or any of these, will turn out profitable voyages if they are well conducted; and the merchandise, particularly the opium, is good. In the year 1790, the opium carried out by the different ships was universally complained of; and Capt. Canning, in the *Nonfuch*, (built in or about the year 1780, by Colonel Henry Watson, at Calcutta), a fast-sailing and well-appointed ship, particularly calculated for the Malay coast and eastern trade, was near two years effecting his sales; and although well acquainted with the eastern trade, made a losing voyage: But the East India Company, from their well-known liberality to deserving individuals, whether in or out of their service, have appointed him (as a remuneration) Master Attendant, at Calcutta. It was extremely fortunate for my employers that year, that I had such good connections at Batavia; as by that means I sold the whole of my cargo, when every other of the five ships in the roads were obliged to fail, having their opium rejected, as damaged and unmerchantable.

SOME ACCOUNT OF SUCCADANA.

WHEN you arrive at Succadana, your first visit must be to the Shabundar or Custom-master, who will introduce you to the King, and the male part of the Royal Family. It is the custom here, and at all eastern ports, to give a present at your first audience, which you must proportion to the rank of the people you visit. The King's present should not be less than 50 dollars, Raja's about 30, and Shabundar's and agents 20 each. These are the only presents absolutely necessary to be made at this place. The persons of the greatest note are, the King, Raja Ally, Raja Samatt, and the Shabundar; the latter two in particular are not much to be depended upon or trusted. The Shabundar will inquire what you have brought for sale, and will be inquisitive about the quantity; to the latter give him an evasive answer, to make them more and more eager after your goods, and give yourself time to find out the market prices, and what articles are most in demand.

It has hitherto been the custom of this place for the Raja's family to engross all the opium trade. No strangers are allowed to purchase from the Europeans, nor are the Chinese. All other trade is open; but permission of the Shabundar, by way of compliment, will be necessary, as also to keep on good terms with him.

Customs.

Five per cent. on all sales. Should you have dollars to purchase pepper, gold, or tin with, you pay the same for them as on goods.

Anchorage.

Anchorage,

250 dollars, should you sell goods to that amount; if under that sum no anchorage is to be paid.

Prices of Exports in 1786.

Tin 16½ Spanish dollars, } per China pecul of 100 catty, or 133½
Pepper 14 d° d° } pounds English.

Tamby Gold, { 26 Spanish dollars, per tale of two dollars weight,
Siac d° { of which 20 tale make a catty, or 40 dollars weight.

Mompowa d° 20 to 22 per tale weight, this gold is of an inferior quality.

Should you take gold in your returns, you must trust to the King for its fineness, by having it in your agreement that he is to seal on it, and be answerable for the quality. This is the only sure way to take gold at any of the Malay ports; but if you are going to China, the less gold you take the better.

When you bargain for your opium, or other goods, you must settle what returns you are to receive. This is generally settled according to what demand the goods are in: if in great want of them, insist on having all tin; if otherwise, in proportion, half tin, half pepper, or one-third tin, and two-thirds pepper; or else a proportion of tin, pepper, and gold. Be sure to agree about the price, and let your agreements be in writing, and signed by the party agreed with, whether king or subject, to prevent them flying off and evading payment, which they will do if possible.

Tin was purchased here for 15, and pepper for 13 Spanish dollars cash; but this was in October, November, and December, before the arrival of the Chinese junks. These people always keep

up the price of tin and pepper during their stay, which is from January to the month of August. All goods are weighed here with English beam scales and half hundreds, and afterwards turned into cattys and peculs of $133\frac{1}{3}$ English.

CHARACTER OF THE MALAYS IN GENERAL.

As the Malays have the character of a treacherous set of men, I would advise all people to be on their guard while in any of their ports; and when on shore never to be without a hanger in their hand. Every one of them go armed with a crease, (hanger,) or a weapon something like a chopper, and very sharp. When they see you are prepared, they will not be so apt to insult you, which the vulgar are ready enough to do.

It is in the power of any man to kill his own slave with impunity; and they are such a dastardly set that they have not courage to resent an affront personally, but will dress their slaves, and give them orders to kill any man they pitch upon, who, after being intoxicated with opium, is insensible of any danger he runs into, being equally at the risque of his life to return without executing his master's orders, or to be cut to pieces in the attempt.

I have always made it a rule of having my guns loaded with round and grape shot while on the Malay coast, with a chest of good arms upon deck, lighted matches and hand grenades in the tops, two sepoy at the gangways, two lascars on the forecastle, and two more on the poop. The officer of the watch and seaconys go round the ship at least every half hour; and centinels and lascars to call "all's well" every quarter of an hour during the night. These regulations to commence at eight o'clock, and to continue till after the reveillie is beat in the morning at day-light.

Rice,

Rice, fish, and fruit, are the common food of these people, who eat very little flesh, or animal food. They drink water, toddy (a distillation from the palm-tree), and coffee; and they chew beetle constantly. They eat but two meals a day, one in the morning, and the other about sun-set, the latter of which is the principal: in the intermediate space they refresh themselves by chewing beetle, or smoking tobacco mixed with opium. They set cross-legged on the floor at their meals, and the better sort have very low tables for their provisions, which are set on them in china plates, or dishes made of wood highly japanned; but they use neither knives or spoons. They have vessels for the purpose of spitting in when they chew beetle or smoke tobacco; and are particular in keeping their persons and the inside of their houses clean. They have but little furniture, except the necessary utensils for cooking their provisions, and carpets to sleep and sit upon; but they are very ostentatious of displaying a great number of pillows, the ends of which are richly embroidered, and the whole covered with the richest silks.

These people are so little addicted to litigious disputes, that they have neither lawyers, attorneys, nor bailiffs. If any disputes or differences arise, the parties apply personally to the Judge (or Carrangue), who determines the matter with expedition and equity*.

In some matters, particularly of a criminal nature, they are permitted to do justice to themselves. If a man detects another in the commission of adultery, murder, or robbery, he has a right to exe-

* How different, in this respect, is the jurisprudence of our country, *where the law's delay* and uncertainty deprive the suppliant of more than half his due; while its voracious retainers overwhelm whole families in misery and ruin. Happy will it be, as has been justly observed, "when a system of legal reform shall diminish the number of wretches who subsist on the vitals of their fellow-creatures; and, by separating the unworthy from the deserving, protect the profession of the law from the indelible reproach produced by its worthless practitioners."

cute justice himself, by destroying the culprit; the weapon in these cases is invariably the crease or dagger.

The Malays are all strict mahomedans; which religion they are particularly tenacious of infringing. Many of them are great pretenders to magic, and carry charms about them, on a supposition of their securing them from every danger.

The common people have no other covering than a small piece of linen fastened round the waist; but the better sort wear a kind of waistcoat made of silk or broad-cloth, over which they throw a loose garment of silk that reaches to the knees. They also wear a pair of drawers, but wear neither shirt, shoes, or stockings; and when they go abroad they always wear a crease or dagger, and a handkerchief tied in a peculiar way round the head.

The salem, or lifting the hands to the head with the palms joined together, until the thumbs touch the forehead, and bending the body, is their mode of salutation. When they appear before their superiors, they raise their hands above the forehead; and if before a prince, they prostrate themselves on the ground, with the forehead resting on their hands, which are still joined, and retire backwards on their knees.

The natives pay great homage to their princes and rajas, and it is difficult for a stranger to get access to them: the readiest means to effect this is, by complimenting them with some valuable present; and the stranger will be treated with respect according to the present he makes, avarice being their ruling passion. The return is generally made in fruit, and a few fowls; but if the stranger, at the time of making the present, is a great distance from his ship, or living on shore near the palace, for the convenience of trade, he is sent some rice, pillaw, and fish, from the prince's table.

It is an universal custom, both with men and women, to bathe in a river, at least once a day; this makes them all expert swimmers; which

which not only promotes health, but prevents that contraction of filth, which would be otherwise unavoidable in a hot climate.

They are so proud and revengeful, and so indolent, that they will neither endeavour to improve themselves in arts, sciences, or husbandry; but suffer their manufactures to be neglected, and their lands to lie without cultivation.

The Dutch have a proverb, which signifies

They are ugly and strong,
And will bear malice long.

Caution.

I beg leave to mention a remark, which I have made on board different vessels trading to the eastward, which is, the commanders of them neglecting to exercise the great guns; and when Malay prows are alongside, instead of keeping one watch, or division of the crew, at the guns, with lighted matches, and the guns pointed into their boats ready to sink them, they are either all at work, or running about the deck in perfect security. I have no doubt but such security has been the loss of many vessels; when, with this precaution, the dastardly rascals dare not think of attacking you. I could enlarge upon this subject, but think, the person not capable of profiting by what has been already said, is not fit to be entrusted with any man's property, and the lives of people under his command. When commanders trade with their own capital they have only to consider the lives of their crew; their own lives and property they have the best right to dispose of.

DIRECTIONS

FOR SHIPS LEAVING CALCUTTA LATE IN MARCH, BEING
BOUND TO MADRAS OR THE SOUTHWARD.

LEAVING Bengal late in March, and bound to Madras, ships generally leave the pilot with a fresh gale between S. and W.S.W., with which, in standing two or three days, close hauled, between the S. and E.S.E. as the wind will permit, they commonly run into light breezes from the N.E. quarter; and with them steer away S., S. by W., S.S.W. and even S.W., until they see Ceylon, about Trincomale, or more to the southward; taking care not to go to the westward of Point Palmiras until they are to the southward of 12° N.

The reason of keeping so far to the eastward is to avoid the westerly and southerly winds, which at this season prevail along the Coromandel coast, and the current which now creeps to the northward along all the western shores of the Bay of Bengal; therefore if you leave the pilot with a fair wind, it is best to steer S., or even S. by E., or S.S.E.; than shape a direct course down the Bay for your port of destination. On the other hand, should the S.W. winds force you so far to the eastward, that before you are in the latitude of 15° N., or to the southward of Cape Negraise, that you have made 3° , or $3^{\circ} 30'$ E. from Point Palmiras, I would rather advise a short tack, of a degree, or a degree and a-half, to the westward, than run out of the track of the N.E. winds, as they are not yet done so far to the eastward, and stand back again until the wind comes fair; at which time shape a course for that part of Ceylon
which

which you mean to make your landfall, or (as most of the ships are now coppered, and sail superior to what they did when I first went to India) shape a course for that point in the latitude of 12° N. which lies exactly in the meridian of, or due south from, Point Pal-miras. It is absolutely necessary for you to fall in with the land to the southward of your intended port; for the winds and current are setting so strong to the N.E., that if you get to leeward of your port a few leagues you will have much trouble and delay in working up; and, probably, be obliged to stretch off shore again, and go to the southward as far as you should have originally gone, in order to secure your passage without this waste of time.

DIRECTIONS

FOR GOING IN AND OUT OF MASULIPATNAM-ROADS.

GOING into Masulipatnam from the southward, observe in rounding Point Divy (which lies in latitude $16^{\circ} 6' N.$), not to come under six or seven fathoms, in order to give the Divy Flat a good birth. You will be then seven or eight miles from the point, which is very low, without any distinguishing mark.—In that water, steering N.N.W., you will shoal in gradually to five or four fathoms, by borrowing, as you get to the northward, a little to the westward. Take care to keep the lead going, and not to come into hard ground, as you will be on the edge of the Flat, where it is hard sand; but, with a commanding southerly wind, you can immediately keep more to the northward and eastward upon shoaling your water. However, I think no ship should go under

four fathoms going in, be the wind as it may; for in that water you are very near the Divy Bank. If you are to the northward of the flag-staff, or even with the flag-staff west, and a little to the northward of it, you may come as near as you please, the water gradually shoaling to any depth you think proper to lie in. From what I have seen, I find there is more than four fathoms seven miles from the shore; all over the roads stiff mud.

This month (September) the currents set very strong to the southward, and the winds quite unfettled.

Sailing out of Masulipatnam-roads, you must steer East, and nothing to the northward of it until you are clear of Narsepore-point, until you deepen to 10 or 11 fathoms, when you may haul a point or two to the northward, according as you have the wind; but be sure you give Point Guardewar a good birth, which bears about E. half N. from Masulipatnam, distance 27 leagues; and as there are many shoals betwixt it and Narsepore, it should be approached with care. When at anchor in Masulipatnam-roads, the flag-staff bore N.W. by W., the extremes of the land from S.W. by S. to N. by E., distance off shore four miles, in two fathoms and three-quarters at low water.

THE MALDIVES.

Some years back one or two ships used to go to the Maldiv Islands to load cowries, a shell which passes current in Bengal as the smallest specie of money; but, from the delay they used to meet with, the difficulty of getting full cargoes, and the unhealthiness of the climate, added, I suppose, to making indifferent returns, the profits not being equal to the risk of health and loss of time, there has been no ship there for some time.

The trade of these islands is now principally carried on by the
Maldivans

Maldivans in their own boats, which are very awkward, being something in the form of a Portuguese bean-cod, but not so well calculated to endure bad weather, and constructed of the trunks of the cocoa nut-trees, which are cut down between Balasore, at the west entrance of the Hoogly (or Bengal river), and their own islands, where they do not diminish the number of that valuable tree.

The Maldiv boats arrive at Balasore in fleets of twenty or thirty, or upwards, in the months of June or July, (when the S.W. monsoon is steady in the Bay of Bengal,) loaded with coir, cocoa-nut oil, together with all the other produce of the cocoa-nut tree, cowries, salt-fish of different qualities, turtle-shell, &c. &c.; and return about the middle of December loaded with rice, sugar, hardware, broad cloth, cutlery, silk stuffs, coarse cottons, tobacco, &c. &c.

They appear to be a quiet inoffensive people; they profess the mahomedan faith, but are not very rigid. Their complexions are a yellow copper colour, and are in general about the middle stature. They dress after the manner of the Mahomedans (or Moors) of India.

DIRECTIONS

FOR SAILING THROUGH THE STRAITS OF CHEDUBA, ON THE
COAST OF ARACAN.

COMING up the coast of Ava, and bound to the northward, and desirous of going through the Straits of Cheduba, you must endeavour to make the land about Foul Island. If you make this island,

it is the best landfall; it lies in $18^{\circ} 20' N.$ and is about five leagues to the southward of Cheduba. Being about three leagues to the eastward of this island, you will see several islands to the northward of you, the three westernmost of which make the Straits of Cheduba.

Cheduba is known by its being the westernmost of the islands: it is of a moderate height, with several hummocks on it; but the southernmost head makes a high bluff, which at a distance may be taken for the southernmost extreme, until you have risen the lower part of the island, which appears like islands separated from it; but when you are near you may see them from the mast-head, that they join to the high bluff land that was at first taken for the southern head of Cheduba.

The next island to Cheduba is round, and of a moderate height, though not near so high as Cheduba, the upper part black, and the lower part white; this lies almost in the middle of the Straits, and which you leave on your left hand going through. To the eastward of it are the islands which form the Straits; they are four or five in number, though they appear when you are abreast of Foul Island to be in one.

In nearing these islands, you will perceive a rock in shore, called The Commodore, from its resemblance to a ship under sail, with a broad pendant flying. This rock you must not borrow on; for, when open to the southward of the above islands, which form the southernmost extreme of the Straits, the ground is foul above one mile and a-half off; for which reason give it a birth of two miles to the eastward of you. As you draw near to Cheduba, you will see an island under the high land, surrounded with rocks; it appears so close to Cheduba, that you will take it to be on the beach, though it lies four miles off Cheduba. This is dangerous, as there is a reef extends one mile and a-half from it, on which the sea continually breaks; so that I would advise no person to come nearer than four miles, or not at all, if possible to keep the eastern shore on board.

From this low land there are innumerable rocks stretching to the southward as far as Foul Island, through which, if there is a passage, it must be a very dangerous one.

The White Island, (which I have called the Round Island,) lying in the Straits, is rather more than one-third channel over from Cheduba to the eastern island. Keep rather on the eastern shore than on it, on account of a reef of rocks running near two miles to the N.N.E. from the N.E. part of it. After you bring the island to bear S.W. by S. you will shoalen your water to five or four and three-quarters fathoms, which depth will continue until you have brought it to bear South. You will have five fathoms regular soundings until near the N.E. end of Cheduba, off which you must be very careful, there being a sandy point stretching near one-third over to seaward, constantly breaking on it. It is opposite a bluff point on the eastern shore; for which reason endeavour to keep one and a-half or two miles off the eastern shore. This is the highest land to the northward, and what you will take to be the northern extreme of the eastern islands when you enter the Straits; but you will find them continue further to the N.W. than the Cheduba Islands do to the W.N.W.

When you have rounded the sandy point of Cheduba before-mentioned, and deepened your water to six and a-half or seven fathoms, you will be about two miles off the eastern shore. Having the northernmost extreme of Cheduba W.N.W., and the northernmost extreme of the islands N.W. half N., keep mid-channel between the two points, on account of a reef of rocks extending from each. If you have the two points in one (or the same bearings) steer N.W. by W., on which course you will carry six and a-half or seven fathoms until you have sailed about four miles; then you will shoal gradually to five and a-half fathoms, which will be the least water you will have through the Straits. By keeping two and a-half or three miles off the eastern shore, you may carry this water, perhaps,
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for one mile and a-half or two miles, and will then deepen gradually to what depth you please to run out into.

I would by no means advise hauling up to northward of N.W. by W. until you are in 22 fathoms, on account of the Terrible Rocks, near which we had 20 fathoms. The body of them lies in latitude $18^{\circ} 28' N.$ extending to the northward and southward for several miles.

These rocks are the more dangerous, as neither The English Pilot or French Directory give any account of them. They lie six or seven leagues to the westward of the Coast of Aracan, and bear from the Broken Islands about S.S.W. distance seven or eight leagues.

Both Cheduba and the eastern islands are inhabited; for which reason, I think, persons passing these Straits should be upon their guard, as the people are of a hostile disposition.

ARACAN AND CHEDUBA.

The kingdom of Aracan and the island of Cheduba are both situated upon the eastern side of the Bay of Bengal. They both produce great quantities of grain, which I believe was not generally known in the year 1780 and 1788, when the scarcity of rice happened in Bengal. I mention it here, as ships of any burthen may load at Cheduba; and vessels, which do not require a greater depth of water than from 16 to 18 feet, may load in Aracan river at any time of future scarcity.

THE MOST ELIGIBLE TRACK FOR SHIPS TO KEEP IN, BEING
BOUND FROM EUROPE TO INDIA OR CHINA, TO OR ROUND
THE CAPE OF GOOD HOPE.

IN the latter end of September 1797 I sailed from Torbay, and, being under convoy, we made the island of Madeira; which I would by no means recommend, but to keep a greater offing, and be thereby more remote from the regions of calms, and have the advantage of a current constantly setting to the southward, as well in the summer as in the winter or autumnal equinox.

Captain Forest (who found the same disadvantages I did, and who seems to have experienced what I afterwards benefited by, viz. currents and a scant wind, which obliged the whole fleet to make more westing than they originally intended) has so exactly coincided in my opinion, that I shall here give the account in his own words; and I trust I shall not be accused of plagiarism, when I do so for the benefit of the navigator, as I do not believe such are given in any of the present Directories. I shall therefore quote the whole passage from his valuable work.

“ If a ship bound from Europe to India in the winter, *i. e.* from the autumnal to the vernal equinox, keeps a good offing, and does not come near Madeira, she will have the advantage of not being so much in the region of calms as if she keeps further east, and will also be favoured with a current setting to the southward.

“ There are also other reasons why I would advise a ship bound to India to keep well to the westward, even at all times.

“ It is obvious that leaving the Channel with a north-east wind, and having got so far south as abreast of the coast of Portugal, if the
ship

ship does not keep well to the westward, the high Pyrenean mountains, and others on the west quarter of the continent of Europe, may, in all likelihood, check a wind, which a hundred leagues further off blows in force*.

“ Being further advanced abreast the great continent of Africa, if the navigator does not keep well to the westward, the retardment he will meet with may be more considerable; for the continent of Africa being very broad, its middle part full of sandy deserts, may retard or stop the general easterly wind in a very considerable degree. The Pyrenean mountains can only check, but the Deserts of Africa may almost extinguish, that wind. And it is remarkable that the region of calms, rains, and tornadoes in the Atlantic, are opposite to the broadest part of Africa, being nearly in the same latitude: and this is not to be wondered at, when we consider that Africa is the broadest piece of land upon the globe, that passes under the Equator. No wonder then if the wind that blows from the Indian side is heated, cooled, and almost extinguished in passing over that vast heated peninsula.

“ And although in the summer monsoon the winds off the east promontory of Brasil may be from S.S.E., yet from an apprehension that such are foul winds to get on with into a high south latitude, I would by no means have the navigator be against stretching that way, because he will thereby escape the calms that prevail further east near Africa; and should the wind come so far to the westward as S.S.W., a good stretch may be made S.E., to where more in the middle of the South Atlantic the S.E. trade may be expected. At

* “ So ships, bound from the low latitudes of America to cross the Pacific to India, are often baffled for weeks together, and seen at a good distance from the land; which certainly is owing to the interruption the mountains left behind give to the wind. Farther on, fairly in the South Sea, this seldom or never happens.

“ Commodore Anson experienced this when he left the coast of America; he was many days becalmed in the *Centurion*.”

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the same time I would not advise to make so free with the coast of Brazil during the summer monsoon as during its opposite, for then, their winter, the current off the east promontory of Brazil assuredly sets to the southward; but I suspect it sets so all the year round, for reasons already given.

“ Having got into the South Atlantic, I would have the navigator pay more regard to getting south than east, that is, to steer rather S.S.E. than S.E., supposing the wind enables him to do either.— I know to this advice will be objected, Why not steer S.E. rather than S.S.E., it cuts off so much distance? I see the force of this objection; but let the navigator reflect, that this fair wind, on which there can be no dependence for continuance in steering S.E., and by which it would seem he coveted easting as well as southing, at the same time may leave him in the lurch, by the expiration of the favourable spirt, in a parallel far short of where he might have got, had the getting southing at this time been his principal object; letting the easting come in only as a collateral or secondary consideration.*

“ Having got well to the southward, I would by no means advise coming near the Cape of Good Hope, if the navigator intends going without Madagascar, but to keep in thirty-six or thirty-six and a-half degrees of latitude. The variation of the compass determines the longitude nearly, though not so well as the lunar observations; and it is not unadvisable to make Gough’s Island, whence, who knows, but refreshments may be had, and a harbour discovered †. In this

* “ In the Lively Brig, in 1780, I got from Falmouth to the latitude of the Cape in thirty-one days. I kept a good way to the westward of Madeira.”

† The Author had, in India, a MS. which gave an account of a Dutch ship being driven off the Cape in a heavy gale of wind, and found an island with a good harbour, where they hauled the ship on shore, repaired some injury in her bottom, and found buffaloes, goats, and poultry in great abundance; and the sea full of fish in or about this latitude. The MS. is lost or left behind.

high parallel the winds are more steady, and the currents setting west near Africa are avoided.

“ If bound without Madagascar, I would now advise the navigator to pay his chief regard to getting eastward, and not covet nothing too soon. Never to keep his ship right before the wind (unless indeed she sails best that way), but to remember that E.S.E. and E.N.E. courses combined, differ not from E. And here I would have him study the ease of the ship and her masts, in the course he shapes; always giving his officers a latitude of altering the course two or three points, as far as so doing makes the ship easier, or enables her to go faster; and by no means to confine his course to a certain point, as if deviating therefrom could be of any bad consequence here in the wide ocean.

“ From the longitude of 10° E. beyond the meridian of the island of Madagascar, the wind will frequently veer from W. to S.W., S., S.S.E., and S.E., and in the course of forty-eight hours, or three days, come round to the western quarter again. When this happens, let him keep his sails rap full, and rely chiefly on his variation or observations for making Ceylon or the Straits of Sunda.

“ If, during the S.W. monsoon, but especially in May, June, or July, he is bound for the Straits of Sunda, let him fall in with the Coast of Java, as S.E. winds prevail there in general during these months, at the same time attended with revolutions from the opposite quarter; remembering that the current, generated by the wind at N.W., on the north end of Sumatra, in summer, though it drains in shore as far as the south part of that island; the draining eastward goes not beyond the Straits of Sunda to the Coast of Java; it being already exhausted on the Coast of Sumatra.”

A T A B L E
OF
LATITUDES AND LONGITUDES OF PLACES;
TAKEN FROM
ASTRONOMICAL OBSERVATIONS.

THE PRINCIPAL PART OF THEM BY THE AUTHOR;

Many of which have not hitherto been laid down.

NAMES OF PLACES.					Latitudes.	Longitudes.
A.						
Acheen roads,	-	-	-	-	5 35 N.	95 35 E.
Ascension island,	-	-	-	-	7 57 S.	14 19 W.
Amsterdam island,	-	-	-	-	38 42 S.	77 22 E.
Andamans, north end,	-	-	-	-	13 30 N.	92 30 E.
———— bank, south end,	} Least water on this bank five fathoms with overfalls.	}	-	-	13 4 N.	91 45 E.
———— bank, north end,					13 26 N.	91 56 E.
————, port Cornwallis,					13 20 N.	92 54 E.
Avarilla, cape,	-	-	-	-	12 55 N.	109 E.
Armegon shoal, north end,	-	-	-	-	14 11 N.	80 28 E.
Alguado point,	-	-	-	-	15 29 N.	73 45 E.
Anjengo roads,	-	-	-	-	8 40 N.	76 55 E.
Ampats,	-	-	-	-	3 39 S.	116 40 E.
Arnol,	-	-	-	-	19 34 N.	
Agullas, cape,	-	-	-	-	34 50 S.	20 1 E.
Aracan river,	-	-	-	-	20 17 N.	93 5 E.

NAMES OF PLACES.	Latitudes.	Longitudes.
B.		
Batavia, - - - - -	6 10 S.	106 51 E.
Balafore, - - - - -	21 20 N.	86 1 E.
Bencoolen, Fort Malbro', - - - - -	3 46 S.	102 E.
Bombay, - - - - -	18 58 N.	72 38 E.
Bourbon island, - - - - -	20 52 S.	55 33 E.
Barn island, - - - - -	1 9 N.	103 55 E.
Bimliapatam, - - - - -	17 57 N.	83 32 E.
Billiapatam, - - - - -	11 54 N.	75 10 E.
Barren island, - - - - -	12 18 N.	94 9 E.
Banguy-peak, - - - - -	7 18 N.	117 18 E.
Bajadore, cape, - - - - -	18 30 N.	120 15 E.
Boliano-shoal, - - - - -	16 12 N.	118 18 E.
Barroos, - - - - -	1 57 N.	98 23 E.
Banjack, - - - - -	2 14 N.	97 20 E.
Basses, India, - - - - -	21 28 S.	40 8 E.
Black Pagoda, - - - - -	19 52 N.	86 12 E.
Boucanjeeree-point, - - - - -	2 50 N.	98 6 E.
Brothers, off Pooloo Lout, - - - - -	4 30 N.	116 15 E.
Brace, western foot of the, - - - - -	21 4 N.	87 45 E.
Bancoot, - - - - -	17 56 N.	73 20 E.
Bufforah, - - - - -	30 31 N.	47 30 E.
Banca, north point of, - - - - -	1 35 S.	105 58 E.
——, fourth point of, - - - - -	3 4 S.	106 14 E.
Bralla, - - - - -	4 45 N.	103 32 E.
Borneo, south point of, - - - - -	4 12 S.	114 36 E.
——, north point of, - - - - -	7 N.	116 50 E.
——, east point of, - - - - -	5 15 N.	118 57 E.
——, west point of; or Pointeanna, - - - - -	0 0	108 45 E.
Balambangan, - - - - -	7 30 N.	117 2 E.
Banguy-peak, - - - - -	7 17 N.	117 30 E.
Bergen's shoals, on the west coast of Sumatra, - - - - -	2 47 N.	96 36 E.
Bintang, - - - - -	1 N.	103 50 E.
Barcelore, - - - - -	13 45 N.	74 15 E.
Batacolo, - - - - -	7 55 N.	81 S E.
Beetlefuckie, - - - - -	15 40 N.	57 20 E.
Borneo, city of, Proper, - - - - -	4 55 N.	112 2 E.

NAMES OF PLACES.	Latitudes.	Longitudes.
C.		
Calcutta, Fort William, - - -	22° 35' N.	88° 30' E.
Canton, - - -	23° 8' N.	113° 2' E.
Cochin, - - -	9° 58' N.	76° 27' E.
Cape Comorin, - - -	7° 56' N.	77° 59' E.
Chittagong, - - -	22° 20' N.	91° 55' E.
Calaboot, Island Banca, - - -	1° 33' S.	105° 53' E.
Condore-harbour, - - -	8° 40' N.	106° 18' E.
Callingapatam, - - -	15° 29' N.	84° 10' E.
Cocoa's islands, west coast of Sumatra, - - -	3° 15' N.	96° 52' E.
Corringa, - - -	16° 58' N.	82° 30' E.
Carrimon, Java, - - -	5° 54' S.	109° 34' E.
Counfel's shoal, China Sea, - - -	8° 54' N.	114° 15' E.
Ditto Ditto - - -	7° 52' N.	112° 32' E.
Cocoa islands, Bay of Bengal, north end, - - -	14° 16' N.	93° 22' E.
Ditto Ditto fouth end, - - -	14° 3' N.	93° 11' E.
Cheduba, north end, - - -	19° 3' N.	93° 56' E.
Carnicobar, north end, - - -	9° 13' N.	92° 55' E.
Cape St. Jaques, - - -	10° 15' N.	106° 35' E.
Cape Avarilla, - - -	12° 55' N.	109° E.
Cape Bajadore, - - -	18° 30' N.	120° 15' E.
Cecir de Terre, Pooloo, - - -	11° 11' N.	108° 22' E.
Christmas island, - - -	10° 55' S.	104° 49' E.
Cecir de Mar, Pooloo, - - -	10° 30' N.	108° 30' E.
Cape Negrais, - - -	15° 30' N.	94° 27' E.
Cocoas islands, Indian Ocean, north end, - - -	11° 50' S.	97° 13' E.
Ditto Ditto fouth end, - - -	12° 33' S.	97° 24' E.
Cape Felix, - - -	3° 48' N.	96° 3' E.
Cape l'Agullas - - -	34° 50' S.	20° 1' E.
Cape of Good Hope - - -	34° 29' S.	18° 23' E.
Cape Hanglip - - -	34° 16' S.	18° 44' E.
— St. Mary's - - -	25° 33' S.	44° 59' E.
Comoro, - - -	11° 33' S.	43° 33' E.
Celebes, fouth point, - - -	5° 42' S.	120° 16' E.
—, north point, - - -	2° N.	124° 2' E.
Cape Howe, - - -	37° 24' S.	149° 54' E.
— Dromedary, - - -	36° 21' S.	150° 4' E.

NAMES OF PLACES.						Latitudes.	Longitudes.
Cape Hawke,	-	-	-	-	-	32° 13' S.	152° 28' E.
— Danger,	-	-	-	-	-	28° 7' S.	152° 28' E.
— Morton,	-	-	-	-	-	26° 57' S.	153° 22' E.
Cumberland island,	-	-	-	-	-	20° 30' S.	148° 45' E.
Cape Cleveland,	-	-	-	-	-	19° 10' S.	148° 5' E.
— Flattery,	-	-	-	-	-	14° 52' S.	145° 10' E.
— Conway,	-	-	-	-	-	20° 44' S.	148° 10' E.
— York,	-	-	-	-	-	10° 44' S.	141° 37' E.
— False,	-	-	-	-	-	8° 40' S.	136° 30' E.
— Babelmandel,	-	-	-	-	-	12° 38' N.	43° 47' E.
— Frio,	-	-	-	-	-	12° 35' S.	41° 10' W.
Crokatoa,	-	-	-	-	-	6° 8' S.	105° 36' E.
Cranganore,	-	-	-	-	-	10° N.	75° 5' E.
Cuddalore,	-	-	-	-	-	11° 30' N.	79° 56' E.
Colombo,	-	-	-	-	-	7° N.	80° 25' E.
D.							
Diew point,	-	-	-	-	-	20° 44' N.	70° 3' E.
Denis's, St., island Bourbon,	-	-	-	-	-	20° 52' S.	55° 30' E.
Diego Garcia,	-	-	-	-	-	7° 28' S.	72° 28' E.
Diamond island,	-	-	-	-	-	15° 15' N.	94° 22' E.
De Breto's, Matthew, reef,	-	-	-	-	-	10° 32' N.	107° 23' E.
Danish rock,	-	-	-	-	-	28° 20' S.	98° 30' E.
Dangers islands,	-	-	-	-	-	5° 27' S.	71° 55' E.
Dwalder, off Pooloo Lout,	-	-	-	-	-	4° 16' S.	
Donder head, south point of, Ceylon,	-	-	-	-	-	5° 47' N.	81° 2' E.
Damaun,	-	-	-	-	-	21° 5' N.	72° 55' E.
Dabul,	-	-	-	-	-	17° 30' N.	73° 55' E.
E.							
Entrance, port Cornwallis,	-	-	-	-	-	13° 20' N.	92° 54' E.

NAMES OF PLACES.					Latitudes.	Longitudes.
F.						
Falſe cape	-	-	-	-	34 16 S.	18 44 E.
Fort Marlbro',	-	-	-	-	3 46 S.	102 E.
Fort Victoria, Bancoot,	-	-	-	-	17 56 N.	73 20 E.
Fort St. George, Madras,	-	-	-	-	13 5 N.	80 25 E.
Felix cape,	-	-	-	-	3 48 N.	96 3 E.
Foul iſland,	-	-	-	-	18 47 N.	93 23 E.
Fernando Noronha,	-	-	-	-	3 56 S.	32 24 W.
Fyal bay,	-	-	-	-	38 32 N.	28 39 W.
Falſe point, Palmiras,	-	-	-	-	20 17 N.	86 45 E.
French flat, buoy of the,	-	-	-	-	21 21 N.	87 56 E.
Fairway, buoy of the,	-	-	-	-	21 28 N.	87 58 E.
Fort St. David's,	-	-	-	-	11 29 N.	79 58 E.
— Dauphin,	-	-	-	-	25 S.	47 10 E.
Funchal,	-	-	-	-	32 38 N.	17 5 W.
Frio, cape,	-	-	-	-	12 35 S.	41 10 W.
G.						
Goa,	-	-	-	-	15 38 N.	73 45 E.
Goat iſland,	-	-	-	-	13 55 N.	120 2 E.
Good Hope, cape of,	-	-	-	-	34 29 S.	18 23 E.
— town of,	-	-	-	-	33 56 S.	18 23 E.
Grand Ladroon,	-	-	-	-	22 2 N.	113 53 E.
Gaſper iſland,	-	-	-	-	3 17 S.	107 8 E.
Ganjam,	-	-	-	-	19 23 N.	85 7 E.
Galle, point de,	-	-	-	-	5 55 N.	80 16 E.
Gheriah,	-	-	-	-	16 36 N.	73 19 E.
George's, St., iſlands,	-	-	-	-	15 26 N.	73 20 E.
Gallegos,	-	-	-	-	10 25 S.	56 45 E.
Gelolo, north end of,	-	-	-	-	2 13 N.	126 15 E.
Gibby,	-	-	-	-	0 6 S.	126 24 E.
Glaſſes, H., coral bank, eaſt ſide Borneo,	-	-	-	-	2 10 S.	
Gambaroon,	-	-	-	-	27 18 N.	56 6 E.
Ganjam,	-	-	-	-	19 25 N.	85 20 E.
Guinea, New, eaſt part of,	-	-	-	-	6 20 S.	148 E.
Gough's iſland,	-	-	-	-	40 3 S.	2 30 W.

NAMES OF PLACES.	Latitudes.	Longitudes.
H.		
Hanglip cape, - - - - -	34 16 S.	18 44 E.
High mount, Junkceylon, - - -	7 54 N.	98 25 E.
High peak, on the east end of Pooloo Boutan, -	6 30 N.	99 24 E.
----- on the west end of Pooloo Boutan, -	6 30 N.	99 15 E.
Holland's, Van, bank, - - - - -	10 42 N.	108 20 E.
Helena, St., James' valley, - - -	15 55 S.	5 51 W.
Hainan, north part of, - - - - -	20 2 N.	110 15 E.
----- fouth part of, - - - - -	18 12 N.	109 20 E.
I. & J.		
Java head, - - - - -	6 49 S.	106 50 E.
Islamabad, - - - - -	22 20 N.	91 55 E.
Johanan, - - - - -	12 17 S.	44 30 E.
Jarra, Pooloo, - - - - -	3 57 N.	100 15 E.
Invisible shoal, - - - - -	11 8 N.	93 25 E.
Iskapilly, - - - - -	14 39 N.	80 20 E.
Invaldoona, - - - - -	14 46 N.	80 18 E.
India, Baffes de, - - - - -	23 23 S.	40 8 E.
----- north extreme, - - - - -	21 28 S.	39 59 E.
Ingellee Pagoda, - - - - -	21 40 N.	87 57 E.
Jagrenaut Pagoda, - - - - -	19 48 N.	85 57 E.
Junkceylon, south end of, - - -	7 54 N.	98 25 E.
Judda, - - - - -	21 30 N.	39 30 E.
K.		
Kedjerree, - - - - -	21 48 N.	88 2 E.
L.		
Ladroon, the grand, - - - - -	22 2 N.	113 53 E.
Louis, port St. - - - - -	20 10 S.	57 28 E.
Leema, the grand, - - - - -	22 4 N.	144 5 E.

NAMES OF PLACES.	Latitudes.	Longitudes.
Lincoln's shoal, Lagullas, cape, Lucepera, Lacadives, north-west part of,	16° 30' N. 34 50 S. 3 12 S. 12 38 N.	112° 32' E. 20 1 E. 106 15 E. 72 30 E.
M.		
Madras, Fort St. George, Macao, Miroe, Sombrero channel, Macaffer, Malacca, Manilla, Mauritius, Mons, cape, Guzarat, Macclesfield shoal, ——— north-east side of, ——— south-west side of,	13 5 N. 22 12 N. 7 29 N. 5 9 S. 2 12 N. 14 36 N. 26 10 S. 24 58 N. 15 45 N. 16 2 N. 15 28 N.	80 25 E. 113 34 E. 93 41 E. 119 42 E. 1 2 5 E. 120 53 E. 57 29 E. 65 49 E. 114 39 E. 114 42 E. 114 36 E.
Marlbro' fort, Manapar point, Mount Dilly, Mangalore, Manado, Pooloo, Myo island, Morintay, ——— north cape of, ——— south end of,	3 46 S. 8 29 N. 12 6 N. 12 50 N. 2 2 N. 1 31 N. 2 50 N. 3 2 N. 1 40 N.	102 E. 78 5 E. 75 24 E. 75 6 E. 124 3 E. 125 50 E. 126 33 E. 127 22 E. 128 6 E.
Marfingola shoal, Monday, or Barren Island, Matthew De Britto's reef, Momparva, Monopin hill, Monaviffa, Mocho, Masulipatam, Mayotta, Mohilla, Madeira, east point of, ——— west point of,	15 23 N. 12 18 N. 10 52 N. 23 N. 2 3 S. 4 22 S. 13 17 N. 16 16 N. 12 49 S. 12 32 S. 32 50 N. 32 30 N.	118 36 E. 94 9 E. 107 23 E. 109 17 E. 105 18 E. 115 45 E. 43 17 E. 81 27 E. 45 35 E. 43 55 E. 16 46 W. 17 26 W.

NAMES OF PLACES.				Latitudes.	Longitudes.
Maldives, south-east part of	-	-	-	° 40 S.	74 55 E.
———— north-west part of,	-	-	-	7 15 N.	73 40 E.
N.					
Nashe's shoal, New Holland,	-	-	-	12 29 S.	123 56 E.
Ditto Ditto	-	-	-	13 58 S.	122 21 E.
Negrais, cape,	-	-	-	15 30 N.	94 37 E.
Nicobars, Quoin Island,	-	-	-	8 49 N.	93 5 E.
North Watcher,	-	-	-	5 14 S.	106 32 E.
Negapatnam,	-	-	-	10 38 N.	80 2 E.
Norcandam,	-	-	-	13 26 N.	94 13 E.
Natal,	-	-	-	32 N.	98 57 E.
Nicobar, south end of the,	-	-	-	6 48 N.	93 34 E.
———— body of the,	-	-	-	7 5 N.	94 92 E.
Northernmost Ampat,	-	-	-	3 38 S.	116 27 E.
New Holland, south-west cape of,	-	-	-	43 42 S.	
———— south-east cape of,	-	-	-	43 46 S.	147 5 E.
New Guinea, east point of,	-	-	-	6 20 S.	148 E.
O.					
Oyster rock,	-	-	-	14 55 N.	74 8 E.
Oujong Raja, Pedir,	-	-	-	5 33 N.	96 36 E.
Ormus island,	-	-	-	27 20 N.	56 25 E.
P.					
Point Palmiras,	-	-	-	20 44 N.	87 2 E.
Paul's, St., island,	-	-	-	37 51 S.	77 48 E.
Pondicherry,	-	-	-	11 42 N.	79 53 E.
Pooloo Condore,	-	-	-	8 40 N.	106 56 E.
———— Timoan,	-	-	-	3 N.	104 25 E.
———— Jarra,	-	-	-	3 57 N.	100 15 E.
———— Perah,	-	-	-	5 46 N.	99 12 E.
———— Rajah,	-	-	-	7 35 N.	98 27 E.
———— Boutan, east end of,	-	-	-	6 30 N.	99 24 E.

NAMES OF PLACES.	Latitudes.	Longitudes.
Pooloo Boutan, west end of, - - -	6° 30' N.	99° 15' E.
—— Pinang, fort Cornwallis, - - -	5° 27' N.	100° 26' E.
—— Roundo, - - -	6° 7' N.	95° 13' E.
Parflar hill, - - -	2° 52' N.	101° 30' E.
—— low point, - - -	2° 52' N.	101° 21' E.
Pedro Branco, in the Straits of Malacca, -	1° 18' N.	103° 30' E.
Pooloo Auro, - - -	2° 30' N.	103° 58' E.
—— Piffang, on the west coast of Sumatra, -	58° N.	99° 55' E.
—— Cecir de Terre, - - -	11° 12' N.	108° 22' E.
—— Cecir de Mar, - - -	10° 30' N.	108° 30' E.
—— Sapata, - - -	9° 56' N.	109° 10' E.
—— Domar, - - -	2° 49' N.	105° 20' E.
Pratas, north-east side of the, - - -	20° 51' N.	116° 50' E.
—— south-west side of the, - - -	20° 37' N.	116° 40' E.
Pedro Branco, Leemas, - - -	22° 20' N.	115° 15' E.
Passage island, on the west coast of Sumatra, -	2° 23' N.	97° 28' E.
Point de Galle, - - -	5° 55' N.	80° 16' E.
Porka, - - -	9° 21' N.	76° 28' E.
Parmira rocks, - - -	13° 17' N.	74° 46' E.
Pigeon island, - - -	14° 4' N.	74° 35' E.
Pooloo Manado, - - -	2° 2' N.	124° 3' E.
Priaman, on the west coast of Sumatra, -	47° S.	99° 40' E.
Padang, ditto - - -	58° S.	99° 59' E.
Passier roads, - - -	1° 49' S.	116° 30' E.
Preparis island, - - -	14° 56' N.	93° 41' E.
—— shoal, - - -	14° 50' N.	93° 55' E.
Port Cornwallis, entrance of, - - -	13° 20' N.	92° 54' E.
Pontianna river, - - -	13° N.	108° 45' E.
Pooloo Lout, - - -	4° 11' S.	115° 58' E.
Point Pedro, - - -	9° 57' N.	80° 42' E.
—— Gardwar, - - -	16° 45' N.	82° 40' E.
—— Romania, - - -	1° 15' N.	103° 42' E.
Paracels, north part of the, - - -	16° 30' N.	110° 5' E.
—— south part of the, - - -	13° 39' N.	109° 5' E.
Pooloo Racket, - - -	6° 1' S.	108° 3' E.
Porto Santo, - - -	32° 58' N.	16° 20' W.
Point Divy, - - -	16° 6' N.	81° 30' E.
Prince's island, in the Straits of Sunda, -	6° 24' S.	105° 20' E.
Pooloo Tingy, - - -	2° 30' N.	105° 8' E.
Pulicate, - - -	13° 34' N.	80° 1' E.

NAMES OF PLACES.					Latitudes.	Longitudes.
Q.						
Queda roads,	-	-	-	-	6 11 N.	99 50 E.
Quilone,	-	-	-	-	8 58 N.	76 37 E.
Quoin island, Nicobars,	-	-	-	-	8 49 N.	93 5 E.
R.						
Rio Janeira,	-	-	-	-	22 54 S.	42 44 W.
Roderigos,	-	-	-	-	19 41 S.	63 10 E.
Round Arroee,	-	-	-	-	2 50 N.	100 48 E.
Rajapore,	-	-	-	-	17 3 N.	73 33 E.
Ragged point,	-	-	-	-	1 24 S.	116 20 E.
Rocky island, off Pooloo Lout,	-	-	-	-	4 7 S.	
Racket, Pooloo,	-	-	-	-	6 1 S.	108 3 E.
S.						
Saldanha bay,	-	-	-	-	33 10 S.	17 59 E.
Sapata, Pooloo,	-	-	-	-	9 56 N.	109 10 E.
Siam,	-	-	-	-	14 18 N.	100 55 E.
Sooloo island,	-	-	-	-	5 57 N.	121 16 E.
Speaker's bank,	-	-	-	-	4 55 S.	72 57 E.
Surat,	-	-	-	-	21 10 N.	72 34 E.
Sombrero channel,	-	-	-	-	7 30 N.	94 12 E.
Slipper island,	-	-	-	-	7 12 N.	99 9 E.
Songy Booloo,	-	-	-	-	1 44 S.	105 28 E.
St. George's island,	-	-	-	-	15 26 N.	73 20 E.
Seyers, northernmost,	-	-	-	-	8 44 N.	97 35 E.
—— largest,	-	-	-	-	8 37 N.	97 26 E.
—— southernmost,	-	-	-	-	8 31 N.	97 19 E.
Salatan point,	-	-	-	-	4 12 S.	114 36 E.
Siao,	-	-	-	-	2 41 N.	124 49 E.
Samonbouangan,	-	-	-	-	6 58 N.	122 28 E.
Soofoo, on the west coast of Sumatra,	-	-	-	-	3 41 N.	95 59 E.
Sinkell roads,	-	-	-	-	2 10 N.	97 38 E.
St. Jaques, cape,	-	-	-	-	10 15 N.	106 35 E.

NAMES OF PLACES.	Latitudes.	Longitudes.
Succadanna, - - - - -	1 16 S.	109 18 E.
St. Helena, St. James's valley, - - -	15 55 S.	5 51 W.
Sambas roads, - - - - -	1 15 N.	108 15 E.
Sand banks, on the east side of Borneo, - - -	2 27 S.	
Southern Ampat, - - - - -	3 41 S.	116 53 E.
Suez, - - - - -	29 50 N.	33 27 E.
Socatra, east point of, - - - - -	12 18 N.	54 25 E.
St. Augustin's bay, - - - - -	23 35 S.	43 35 E.
St. Julian's, - - - - -	45 N.	106 45 E.
Scarbro' shoal, - - - - -	15 N.	117 12 E.
St. Maria's islands, - - - - -	43 20 S.	148 10 E.
St. Patrick's head, - - - - -	41 44 S.	148 20 E.
Salvages, - - - - -	30 8 N.	16 4 W.
St. Paul's, - - - - -	37 51 S.	77 48 E.
St. Salvadore, - - - - -	12 46 S.	38 40 W.
St. Jago, north part of, - - - - -	14 54 N.	23 25 W.
——— south part of, - - - - -	14 18 N.	23 26 W.
T.		
Timoan, - - - - -	3 N.	104 25 E.
Tringano roads, - - - - -	5 23 N.	103 16 E.
Tapanooley, - - - - -	1 44 N.	99 33 E.
Trichindore Pagoda, - - - - -	8 37 N.	78 14 E.
Tellicherry roads, - - - - -	11 45 N.	75 31 E.
Tanjong Salatan, - - - - -	4 12 S.	114 36 E.
Timontangis, - - - - -	5 57 N.	120 54 E.
Triangles, six rocks in the China Sea, - - -	16 17 N.	112 2 E.
Timlee point, - - - - -	14 52 N.	80 14 E.
Telingchon, (or Telican), - - - - -	8 33 N.	93 43 E.
Tellofamoy, - - - - -	5 15 N.	97 10 E.
Tristan de Acunha, - - - - -	36 27 S.	13 17 W.
Tombenjoa, - - - - -	3 47 S.	114 37 E.
Tanjong Lapar, on the east side of Borneo, - -	2 8 S.	
Trinidad, - - - - -	20 15 S.	30 30 W.
Trincomale bay, - - - - -	8 35 N.	81 27 E.
Turon bay, - - - - -	16 4 N.	106 42 E.
Tingy, (or High Peak island) - - - - -	2 30 N.	105 8 E.

NAMES OF PLACES.	Latitudes.	Longitudes.
U. & V.		
Vanfittart's shoal, (where she struck), - - -	2 11 S.	106 48 E.
----- wreck, (upon Pooloo Panjang), - - -	2 9 S.	106 22 E.
Vingorla rocks, - - -	16 N.	73 37 E.
Victoria fort, Bancoot, - - -	17 56 N.	73 20 E.
Van Holland's bank, - - -	10 42 N.	108 20 E.
Vizagapatam, - - -	17 46 N.	83 35 E.
Victoria island - - -	1 28 N.	105 55 E.
Van Diemen's bay, - - -	10 30 S.	130 15 E.

F I N I S.

N O T I C E.

CAPTAIN ELMORE, confident there are many Gentlemen, both in Europe and India, of superior merit to himself, and whose opportunities of acquiring nautical knowledge have been at least equal to his own, (but who, perhaps, from delicacy or apprehension of bringing their names before the scrutinizing eye of the Public, or that they have not matter sufficient to form a publication,) will thankfully acknowledge the receipt of any remarks, additions, or such matter as may enable him to improve this Work. He therefore requests, that any Gentleman who may have any manuscript instructions, remarks, or charts of particular places, within any of the Honourable Company's limits of trade, will do him the favour of transmitting them to his Publisher, and they shall be added to the foregoing Work, with the party's name to whom he may be indebted for the obligation.

