

cannot escape blame. It might be objected that they have their own laws, in what used to be the articles of war, enough for their guidance in discipline and all its requirements afloat. But suppose them to be placed on shore, as on a recent occasion, to act in place of the civil authorities, what enormities, at variance with all law, are committed from sheer ignorance.

And yet there is a singular dearth of information on the subject of the relative bearings of civil law and that myth called martial law, showing where one ends and the other begins; and the relative authorities of each of these institutions when employed with each other. The acknowledgment of each of them under certain conditions, and where those conditions cease or have no being, illegal proceedings take place. Civil authority, according to circumstances of population, is sometimes weak; in which case military *power* is called to its support; and military *power* exercised against a rebellious power in arms is justified in all its proceedings. But that condition of rebellious power in arms ceasing, military *power* employed against it ceases also, and offenders can only be turned over by it for trial by the civil authority.

These relative conditions have been so ably set forth by the author of the following letters, that we have considered they would be acceptable to our readers. And we gladly further, not only a clear view of the relation between civil and military law, as it is called, or as we shall term it "power," military law being applicable only to military men, and not to civilians, but are also glad to be forwarding thereby the publicity which their author desires they should attain. Were the facts herein laid down wider known, as they should be, such great mistakes as have been committed would not have been laid to the charge of naval officers. In the case alluded to, we have seen their conduct palliated by the Admiralty, on the score of youth and an ignorance of the great responsibilities of that part which they were called on to perform,—disqualifications for such duties, however, that were no palliation for the conduct of those who employed them: and thus were her Majesty's naval officers induced to the condition of passing sentences of hanging and flogging of negroes, who were called rebels, and even of superintending such punishments afterwards,—a duty which all belonged to the civil power,—and certainly reflects neither honour nor dignity on their profession; all of which a correct view of civil law and martial power would have enabled them to avoid.

No. 1.—Statement of the Issue at Law to be Tried.

Nearly a century and a half ago a certain carpenter, attached to the Ordnance at Gibraltar, was tried and sentenced by a court-martial for a military offence. The prisoner appears to have been fairly heard and justly condemned. So thought Governor Sabine, the commander of the fortress, who, in due course of military authority, countersigned and confirmed the sentence of the court. That carpenter returned to England, where he found money and friends. He brought his action against Governor Sabine in Westminster Hall for illegal punishment

by court-martial of a civilian. He proved, that though following the army, he was not within the jurisdiction of military law. The general was most ably defended. It was not shown that the sentence was oppressive or unjust in itself; it was not pretended that the governor bore any ill-will towards the prisoner; he was shown to have acted in regular course of duty, and to have been guilty chiefly of inadvertence. But, morally innocent as he was, the majesty of civil law was asserted. The general was held to have exceeded his powers by ordering the punishment of a civilian. A verdict of £700 was given against him. On appeal, this judgment was confirmed. Such are the facts reported by Lord Mansfield, the greatest common lawyer who ever sat upon the bench, himself counsel in the cause. He cites this as a precedent to be followed, and as the authority which guided him in one of the most memorable of his decisions.* So jealous of military license were the English lawyers of the last century.

A century and more has passed away, and again the governor of a British colony has adopted the sentence of a court-martial upon a civilian. So far the case is that of the carpenter. But in this instance the sentence was death. The prisoner was not a camp follower, but was a simple civilian, who had never pretended to bear arms. He was seized in a district in which civil law was undisturbed; he was seized by the governor in person;† he happened to be a man with whom the governor had waged a long political struggle. The court which tried him is said to have borne him malice.† At its head was a hair-brained youth. It received the evidence of condemned prisoners said to have been suborned, and the written depositions of witnesses who were not produced. It refused to hear the witnesses of the prisoner. An official inquiry, conducted by English judges, has decided that evidence is totally wanting to prove the crime with which he was charged. The report of the trial and all the evidence was laid before the governor. He sanctioned the sentence, and *it was carried out with every mark of insult and ferocity*. It was carried out, not in the midst of war, but at a time when the governor reports that entire tranquillity existed. Nor was that execution single. It was one of 439. It was the most signal wrong of a long reign of terror, when a civil governor handed over an unresisting and defenceless people to a soldiery whose own lips recount proudly the measure of torture and murder.

It would have seemed that Lord Mansfield, who approved the assertion of civil law in the case of the military carpenter who had been flogged, would have seen some good cause for trial in the case of the civilian and politician who had been hung. But the matter does not rest here. It was found that a powerful party loudly justified this act, as founded on ancient prerogative and undoubted right. *A learned*

* See *Fabrigas v. Mostyn*, XX. State Trials, 232; also, *Comyn v. Sabine*, I. Cowper, 169.

† Much stress has been laid on the Governor not bearing any ill-will. When a Governor does the office of his own police, there must be a feeling very much akin to it. See also page 135 of last volume.—ED.

lawyer was found to write a book, in which he proved to their entire satisfaction that the execution of civilians by courts-martial was a striking feature of the British Constitution. Writers and speakers told us that society must come to an end unless Governments might hang obnoxious people in emergencies. Worse than heated or random talk followed. A so-called liberal administration said that they were very sorry, and said no more. An illiberal administration succeeded, and in his place the *leader of the House of Commons* justified this deed by the proclamation of martial law, which he told us was the suspension of all law, and, as he implied, of all responsibility. Language was used in parliament which perhaps was never heard there, except from the creatures of the Stuarts. *Lordly* and *priestly* enthusiasts hailed the chief actor as a hero, and glorified his deeds over their cups. And the upper classes seemed convinced to a man that a great official murder was an act as strictly legal as it was eminently spirited.

It would seem that some strange change has come over the nation, once so jealous of the power of the executive, that it again tolerates the servile and despotic language of the Stuarts. The cause is not far to seek. From the Revolution down to the beginning of this century, the parliament, the public, the bar and the bench were alive to the duty of watching the pretensions of the Crown. Since then the House of Commons, controlled by the upper and upper-middle class, have virtually exercised the powers of the executive. They are, in fact, the authors of the so-called acts of the Crown, and the people are again practically unrepresented. Thus, they who won their influence by resisting the pretensions of arbitrary power, have become the accomplices of an arbitrary power which really issues from themselves. In the name of the *people*, of the great family of citizens of the British empire, it again becomes vital to crush the pretensions of the executive abroad; it again becomes necessary to vindicate beyond the seas the first principles of civil liberty.

Hence this trial is of far higher import than the redress of a private wrong, or the punishment of an arbitrary act. This is why an association of Englishmen has undertaken to bring this cause to an issue, with no rancour against an individual, in no spirit of party, creed, or school, but simply to hear from the lips of an English judge *what* is the right to civil justice of English citizens, *what* are the safeguards of life throughout the breadth of our vast empire. It seems strange that when a number of persons, not hitherto known as common informers, come forward, amidst all the risk and odium which surrounds such a duty, to vindicate great public principles and rights, defended by the best of our public men for two centuries, and confirmed by a long train of solemn decisions of parliament and courts of law—principles now for the first time openly derided by men in influence and power,—it seems strange that these men are to be met by imputations of malice and fanaticism, by every insult that insolence can invent, every *obstruction* that *officials* can devise, every *trick* that *craft* can suggest. Things like these portend and make needful great changes somewhere in the State.

There are worthy people who admit that deeds most illegal and most cruel have been done, but who will not allow that these call for public trial; least of all, a trial for murder. If trial there be at all, it must be a trial for murder. The Jamaica Committee did not make the law of England; they appeal to it. Our law (it may be right, or it may be wrong,) calls the act of unlawful and unjustifiable homicide—murder. If a man illegally puts a fellow-citizen to death, he cannot by our practice be tried for indiscretion. If trial there be, the indictment must be drawn by lawyers, according to the law.

But they say (and it is in reality the view of the late and of the present Government), however violent and excessive in themselves were the acts of Governor Eyre, it is not wise to try them at law, or to force a legal decision on their illegality. They answered in the main a useful end. Nor would it be wise to define too closely the reserve force in the hands of an executive. So said the apologists of Strafford. If there be one fact which makes it a duty to try this issue to the uttermost, it is the prevalence of so ominous and specious a claim. What makes this cause so critical is this very fact, that the bulk of English society positively desires to lodge in the hands of the executive latent and indefinite prerogatives, which it was the boast of our forefathers to have destroyed. The fact that these prerogatives cannot well be turned upon ourselves is the very thing that makes them so insidious. That they are meant to maintain our vast unresting empire is the very purpose we dread. The precise issue we raise is this: that throughout our empire the British rule shall be the rule of law; that every British citizen—white, brown, or black, in skin—shall be subject to definite, and not to indefinite, powers; that governors who govern by the sword must justify the necessity which compelled them to use it. Neither beyond the seas nor within them shall the executive place itself above law by simply declaring law abolished. Come what may, our colonial rule shall not be bolstered up by useful excesses or irresponsible force. Throughout our empire, as in this kingdom, government shall be responsible and defined; and there, as here, its basis shall be law, and not prerogative.

It is widely supposed that to try such a case in a court of law is oppressive and unjust. It is thought that an official who has done acts of necessary violence, and discharged a great public trust, may be technically convicted of a crime for which there exists the amplest moral justification. It is not so. The law of England is not so feeble, and not so unjust. He who has performed his public duties by the only possible means has as full a defence before an English judge as before his own conscience. A ruler who repels force by force may do everything that strict necessity compels. He may crush an armed rebellion by arms in every way that the legitimate use of arms requires. He may waste a province with fire and sword, and deluge it in blood, and he shall be guiltless at the bar of law as at that of honour, if he has done nothing but what his grievous necessity forced on him; nothing but meet open force by open force; has done no act of violence

except in the field in due course of war. This latitude the law gives, but not one jot beyond. Does the present generation of Englishmen find this not enough? Do they think the authors of the reign of terror in Jamaica did not exceed it?

The story of the carpenter at Gibraltar which I have narrated is no isolated case. It is but one of a series of decisions by which this branch of constitutional law has been firmly established. From the time of the Revolution down to the present generation, there is a long current of authority which defines the powers of governors of our provinces, the functions of a court-martial, and the conditions of the exercise of military force. Time was when lawyers and the public watched those liberties with dauntless and far-sighted zeal. It used to be thought that it was the first thing for a free and sound state, that those powers, whatever they were, should be definite; and, however hard might be the case, should be rigidly enforced. There is no part of the law of England more broad, great, and noble. There is not a technical or narrow rule in this branch of our system. It is all plain and wise, based solely on the great rules of justice, and tempered by the deepest political sagacity. It recalls to us some of the finest intellects and the most generous hearts that ever adorned our country; some of the truest acts of courage and of resolution in our history. The great memory of these solemn judgments, the splendid language in which they often were enshrined, has long been dear to the people and to the profession they ennobled. I cannot believe that they are yet forgotten or despised. Nor will I believe that the bulk of the English people have grown so careless of liberty and law, that they will see these great constitutional rights trifled with, and defaced by reckless scribblers and hair-brained talkers, glossed over by ministers of the Crown, and loaded with the sophistry of glib official cant. I trust that when the thinking public of England hears and weighs those doctrines of official responsibility, laid down by our judges for a century and a half, and compares them with language of the ministers and the parliament of the day, it will see that there is yet a great question at stake between the executive and the subject; subjects, it may be, beyond seas, and of another race, but fellow-citizens with us in the British realm. If they are not this, what are they? If they have not this law, what law have they?

Now, I think a review of the decisions of parliament and of the bench will be found to establish the following propositions with overwhelming force:—

1. The Crown has no power, and can delegate no power, to suspend civil law in Great Britain or in the Colonies.
2. Martial law is unknown to our system, and condemned both by the common law and statute law of England.
3. No civilian can be tried by court-martial, whether in time of war or in time of peace.
4. An official is bound to repel open force by open force; for the exercise of which he is responsible to the law.

5. He is justified for all acts of violence done in due course of legitimate war; he is guilty for all acts of violence not required by military necessity.

6. The governor of a colony may be tried here for all crimes committed in his province.

I should have thought that these principles were such as this nation does not hold trifling or extravagant. We have long thought them our birthright. It is certainly a grave matter whether they apply to all parts of this British Empire or not. Do they apply to some parts and not to others; and if so, to which? Are they good in Canada, in Australia, in Ireland? We are told, I know not from what peculiarity in the native character or special history of the island, that they do not and cannot apply to Jamaica. Whether they do or do not is of the highest moment to the honour and peace of our empire. But if in that empire there be a black spot, where civil law is superseded by arbitrary violence, I desire to hear the limits and origin of this outlandish prerogative, not from under-secretaries of state or naval lieutenants, but from the solemn sentence of an English judge.

No. 2.—The Crown has no Power to suspend Civil Law in England.

At the close of last session, the leader of the House of Commons, and the head of a great party, rose up in the chamber of Hampden and Pym, of Burke and Mackintosh, and, in answer to a question if certain proceedings were not illegal, replied that they were done under the existence of martial law, and "in the state of martial law," said he, "the Mutiny Act, like other Acts, would be suspended."* There a challenge was thrown down to the people of England to sustain, if they could, the principles of 1642; to resist, if they dared, the new assertion of extinct prerogative.

The real point at stake in this case is no longer the punishment of one intemperate ruler, but a vital question of national liberty and policy. His deeds and their motives sink into nothingness before the great issues of public right, upon which we appeal to the law. So long as the late governor was defended upon vague grounds of previous character and probable intentions, it was possible to believe that no great public interest demanded his trial. But that time has long since passed. The question has shaken society and political parties to their centre. It has been chosen as the test of our imperial system, and the battle-ground of public rights. To justify the accused there have been asserted doctrines which no liberal Englishman can hear without dismay, and that not by his lordly patrons and unblushing flatterers alone, but by ministers of state and powerful journals. And beneath it all, it is to be feared, there lurks a silent, sinister resolve to arm the executive with a masked but terrible weapon, which no thinking man can deny may be used with infamous abuse.

What the new "divine right" of a higher prerogative requires us now to believe is, that on due occasion, of which they are the sole

* See Debates in House of Commons, July 19th, 1866.

judges, the Crown and its officers may legally suspend all civil justice, and proclaim a state of martial law. That, having done this, they are free to act at will, whilst they cease to be responsible for their conduct to any tribunal in the world. They may then, with or without a state of actual rebellion, of which again they are the sole judges, set up courts-martial to try civilians for treason and other civil offences, and inflict any sentence whatever, including the sentence of death, with or without previous torture.* Indeed, so far as one portion of her Majesty's dominions is concerned, from some peculiarity, it seems, in its most numerous inhabitants, the jurisdiction involves a system of periodical raids with fire and sword by her Majesty's officers and troops; and a circuit of "bloody assizes," in which ruffianly subalterns play the part of judges, and a furious butcher is at once attorney-general and sheriff.

For a state of things like this, and a claim like this, but one remedy remains,—a formal appeal to the law. It becomes the concern of every honest citizen to try this cause to the end. It will, I think, be strange, if, when the meaning of this great struggle grows plainer and deeper, the whole liberal public of England, every friend of freedom and order within it, does not give it his earnest support. The public rights at stake will come, as they are seen and known more clearly, to overshadow for us, as they did for our ancestors, the miserable actors themselves. The plea that a great public criminal *meant well* is indeed a bitter mockery to men whose souls are stirred by the triumph of great public crimes. The State we know will feel the wound long after the excesses of the Government and its agents can affect us, perhaps almost when the horrors of Ramsay are forgotten. Is it not astounding to reflect on the mean and childish pretences on which one of the most sacred principles of civil society is trifled with and sapped? We charge a viceroy out of his own mouth with cruel and oppressive misrule; and they tell us that he has made contributions to science,

* It seems that this has been regularly reduced to a system in a memorandum issued by the Admiralty for the guidance of officers, May 25th, 1866:—

Instructions to the Commanding Officer of a Party landed when Martial Law has been proclaimed.

"9th. If martial law should be proclaimed in any district, you are then to follow the directions of the officer appointed to the military command of the district.

"10th. The arbitrary will of such officer in such case supersedes the ordinary law for the time being, in the same manner and degree as it would if the district placed under martial law were an enemy's country.

"11th. You are to require directions, in writing, from the officer in military command of the district under martial law as to your conduct in all matters of importance, especially in regard to the treatment of prisoners taken by you, whether they be taken in the actual commission of violence against the persons or property of her Majesty's subjects, or under other circumstances.

"12th. It is competent for the officer in military command of the district under martial law to order prisoners to be brought to trial in a summary manner before a council, to be named as he may direct."

and is known for his enterprise and endurance. What can it be to us that a man accused of an offence against the State like this has or has not the qualities which recommend him for a club or a learned society? I trust that he has far higher qualities than these. I honour his achievements and his gifts; but be these qualities what they may, it is with his acts, and not with his qualities, that his country is concerned. We ask that his conduct as a ruler be sifted by a jury of his countrymen, and its lawfulness determined by an English judge. It would startle the contemporaries of Mansfield and Burke did they hear how the guardianship of those public rights they built up had dwindled to a contest of personal partisanship. In those days the public was not wont to be tutored in political principles by retired captains and roving explorers, discredited commanders, and the cynical extravagances of a literary sect. We appeal to Cæsar, and to Cæsar let us go. A State culprit is at the bar no longer of parliament, or even of opinion, but of a civil court of justice. The great public cause there at trial should dwarf to nothing both accuser and accused. On this ground of law let us rest our case. And let every honest citizen take care that nothing shall impede the even course of regular justice.

In the belief that the public need only to feel how great are the matters of law and liberty in question to give to this trial their active assistance, I propose to draw out the broad features of the legal doctrines involved, and of those decisions under them which till this day have hardly been impugned. I am aware that a journal is no place, and that the lay public forms no tribunal, for intricate questions of law. I intend nothing of the kind. The public is not asked to try these questions of law, but to insist that they shall be tried. Journals do not give judgment on the safeguards of civil liberty; but it is their first duty to point out the dangers which menace those safeguards, and to rouse the public to defend them.

Now, the first constitutional principles which I have ventured to maintain are these,—*that the Crown has no power to suspend civil law; and that martial law is unknown to our system.* I propose to show, first, that this abhorrence of martial law is the keystone of our constitution; next, that this sacred and essential right has been carried by Englishmen with them into every settlement beyond the seas; and then I will consider those special circumstances which are said to have strangled it in the island of Jamaica.

I begin with the proposition, that martial law is unknown to our system. And I would first ask your readers again to consider the quaint but decisive language of the Petition of Right, that statute of Charles I. in 1627, the foundation of our present constitution. (3 Car. I. c. i.)

"7. And whereas, also by authority of Parliament in the fifth and twentieth year of the reign of King Edward III., it is declared and enacted, that no man should be forejudged of life or limb against the form of the great charter and the law of the land; and by the said great charter and other the laws and statutes of this your realm, no

man ought to be adjudged to death but by the laws established in this your realm, either by the customs of the said realm or by Acts of Parliament; and whereas no offender of what kind soever is exempted from the proceedings to be used, and punishments to be inflicted by the laws and statutes of this your realm; nevertheless, of late time divers commissions under your Majesty's great seal have issued forth, by which certain persons have been assigned and appointed commissioners, with power and authority to proceed within the land, according to the justice of martial law, against such soldiers or mariners, or other dissolute persons joining with them, as should commit any murder, robbery, felony, mutiny, or other outrage or misdemeanour whatsoever, and by such summary course and order as is agreeable to martial law and as is used in armies in time of war, to proceed to the trial and condemnation of such offenders, and them to cause to be executed and put to death according to the law martial.

"8. By pretext whereof some of your Majesty's subjects have been by some of the said commissioners put to death, when and where, if by the laws and statutes of the land they had deserved death, by the same laws and statutes also they might, and by no other ought to have been judged and executed.

"9. And also sundry grievous offenders, by colour thereof, claiming an exemption, have escaped the punishment due to them by the laws and statutes of this your realm, by reason that divers of your officers and ministers of justice have unjustly refused or forborne to proceed against such offenders according to the same laws and statutes, upon pretence that the said offenders were punishable only by martial law and by authority of such commissions as aforesaid, which commissions, and all other of like nature, are wholly and directly 'contrary to the said laws and statutes of this your realm.'"

And by the statute itself such commissions and the exercise of martial law are declared illegal.

It will be seen that this statute is not so much an enactment of a new principle as the declaration of an old right which dates from the provision of the great charter itself,—“No free man shall be taken, or imprisoned, or be dispossessed of his property and fee, but by lawful judgment of his peers, or by the law of the land,”—a right which, violated from time to time under the feudal times, had never been lost or betrayed. This first of all civil rights depends on no act whatever: it is a fundamental part of the common law. The Petition of Right was drawn, it is said, by Sir Edward Coke. Let us listen to the words that he used in the debates which preceded it: “To hang a man *tempore pacis* is dangerous. I speak not of prosecution against a rebel. He may be slain in the rebellion; *but if he be taken, he cannot be put to death by the martial law.*”^{*} And again, in his *Institutes*, Coke says, “If a lieutenant or other that hath commission of martial authority in time of peace *hang or otherwise execute any man by colour*

* Rushworth Coll. iii. App. 81.

of martial law, this is murder; for this is against Magna Charta (chapter 29), and is done with such power and strength as the party cannot defend himself, and here the law implieth malice."† And in the same debate upon the Petition of Right, Mr. (afterwards Chief Justice) Rolle said, "*If a subject be taken in rebellion, if he be not slain in the time of his rebellion, he is to be tried after by the common law.*" Such was the principle of the first founders of English freedom. It has been uniformly upheld to the present day. On no occasion, now for two centuries, has martial law ever been pretended to be exercised in England; and in no act in the statute-book of England is it recognized or mentioned, except in the totally different sense of military law—the special law applicable to soldiers as administered by their officers. We read in Blackstone's *Commentaries* (book i. c. 13), "Martial law, which is built upon no settled principles, but is entirely arbitrary in its decisions, is, as Sir Matthew Hale observes, in truth and reality no law, but something indulged rather than allowed as a law. The necessity of order and discipline in an army is the only thing which can give it countenance, and therefore it ought not to be permitted in time of peace, when the King's courts are open for all persons to receive justice according to the law. Wherefore Thomas Earl of Lancaster, being condemned at Pontefract 15th Edward II., by martial law, his attainder was reversed 1st Edward III., because it was done in time of peace." This distinction is well pointed out by Lord Loughborough, who says, in the judgment in "*Grant v. Gould*" (1792):* "Martial law, such as it is described by Hale, and such also as it is remarked by Mr. Justice Blackstone (i. e., law administered, not by civilians, but by soldiers), does not exist in England at all. Where martial law is established and prevails in any country, it is of a totally different nature from that which is inaccurately called martial law, merely because the decision is by a court-martial, but which bears no affinity to that which was formerly attempted to be exercised in this kingdom, which was contrary to the constitution and has been for a century totally exploded. . . . Therefore it is totally inaccurate to state martial law as having any place whatever within the realm of Great Britain." As amongst themselves, soldiers have a military code; as between soldiers and civilians, the law never for one moment permits the suspension of civil justice, or exemption from liability in civil courts. After the suppression of the Gordon riots in 1780, Lord Mansfield, in Parliament, says, "Supposing a soldier, or any other military person who acted in the course of the late riots, had exceeded the powers with which he was invested, I have not a single doubt that he may be punished, not by a court-martial, but upon an indictment to be found by the grand inquest of the city of London, or the county of Middlesex, and disposed of before the erminent judges sitting in Justice Hall at the Old Bailey." So, too, said Chief Justice Tindal, in the case of the Bristol riot of 1832. "The soldier is still a citizen, lying under the same obligation, and invested with the same authority

* Coke, 3 Instit.

† 2 H. Blackstone, 69.

to preserve the peace of the King as any other subject."* And so Sir David Dundas, then Judge-Advocate-General, when examined upon the outbreak in Ceylon in 1849, and its suppression by military force, admitted that the governor who had called it out was responsible afterwards, "just as I am responsible for shooting a man on the King's highway who comes to rob me. If I mistake my man, and have not, in the opinion of the judge and jury who try me, an answer to give, I am responsible."† In the case of the Demerara riot, in 1823, a case of terrible similarity with this, Lord Brougham, in Parliament, said, "I do not profess to understand, as a lawyer, martial law of such a description: it is entirely unknown to the law of England." And Sir James Mackintosh declared, "The only principle on which the law of England tolerates what is called martial law is necessity. Its introduction can be justified only by necessity; its continuance requires precisely the same justification of necessity; and if it survives the necessity on which it rests for a single minute, it instantly becomes a mere exercise of lawless violence."‡

The effect of all these opinions is the same, and it is this:—The English constitution and law know nothing, as regards civilians, of any law but the civil law. The jurisdiction over civilians of military courts, the suspension of civil courts, or the application to civilians of any but civil process and civil punishment, is a thing wholly and for ever repugnant to the English system. Those who use force, who violently close the courts, or who forcibly usurp their functions, be they soldiers or be they civilians, whether they act under commission from the Crown or not, remain for all that they do accountable to the arm of civil justice. Civil justice, like the King, never dies. It may be suppressed for a time by force, but its arm can reach backward to the instant of its own suppression, and call all men, military or civil, official or citizen, to summary and condign penalty. All acts, whenever done, whether under that suppression or not, remain equally open to trial. The civil law contains no method for its own extinction. All devices and attempts to extinguish it are crimes, as are all schemes to wrest the criminal from its grasp.

I am quite conscious that by itself this is far from proving the case for the prosecution of Mr. Eyre. I will not pretend that it establishes the law of England conclusively. I ask the public only to weigh these plain and solemn decisions of the law, and ask themselves if they do not make out a strong *prima facie* case that martial law (or the use of law other than civil law, the trial of civilians by other than civil judges) is repugnant and alien to our system. I am well aware, moreover, that martial law is said to be recognized by an Act of the Irish Parliament, in 1799, and by several Statutes of Jamaica; that it has been proclaimed in that island, in some of the colonies, and during the Irish rebellion. I will deal with these later, and see to what these instances really amount. In the mean time I rest on this: that, for Englishmen

* Russ. on Cr., 286.

† 2nd Rep. Ceylon Committee, p. 177.

‡ House of Commons Debates, June 1, 1824, 21 Hans. N.S.

at least, martial law is something of monstrous and lawless birth, and if it be, I would ask if an English court of justice will not require some higher proof of its naturalization on any dominion of the Crown than is contained in forced inferences wrung from confused Acts of the Irish or the Jamaica Parliaments; from the unresisted usurpations of isolated governors and commanders; from tortured readings of the preamble of a statute; from doubtful interpretations of the official edicts of a desperate and panic-stricken class?

FREDERICK HARRISON.

(To be continued.)

THE SAFETY FISHING-BOAT OF THE ROYAL NATIONAL LIFEBOAT INSTITUTION.

A safety fishing-boat in certain cases of these craft being overtaken by bad weather at a distance from the land may be looked on as of as much importance as the lifeboat itself. In this light it is a good thing for our fishermen that the subject was seen by the council of that invaluable institution, which has so much distinguished itself in saving our seamen from wreck. The Royal National Lifeboat Institution, whose good works our numbers continually record, has made the experiment, and we are happy to say successfully. We are therefore glad to follow up their endeavours by contributing all we can to make them known, and with that view repeat the following article from their journal.

We consider this step as one of the most important that has been taken by the institution, and in respect of our fishermen that it is beginning at the right place, the fountain-head, of saving our fishermen's lives when threatened as they so often are by danger, frequently unavoidable, and too often fatal. Our country cannot make refuge harbours, it appears, where they are most wanted: it is everybody's business, and every one knows that every one's business is nobody's.

It is fortunate in such a state of things that there is a society of our countrymen who come forward, with the support of a section (too small) of their brethren, to do the good work of saving our seamen in their perilous calling, and they are well entitled to the gratitude of their country.

In consequence of the frequent loss of life through the foundering of fishing-boats on the coasts of the United Kingdom, it appeared to the committee of the National Lifeboat Institution that the safety of the larger class of open and half-decked fishing-boats on our coasts might be greatly increased, by enabling them to be made temporarily insub-

mergible, in the event of their being overtaken by gales of wind when at long distances from the land.

No doubt was entertained by practical persons on the coast, who were consulted on the subject, of the need of such improvement and of the feasibility of the plan proposed to effect it; but the coast boatmen being an inert class, not readily departing from what they have been accustomed to, it was not thought likely that they would themselves initiate any such changes, however needed.

The committee, therefore, decided to build a few pattern boats, and to place them at some of the principal fishing stations in the hands of experienced and trustworthy boatmen, to whom they would be lent, or let at a small percentage on their earnings, for a period of twelve months; at the end of which time they might be sold, and would remain in the several localities where placed as samples, from which the other local boats might be improved in a similar manner.

As these boats would be seen by large numbers of fishermen from different places at their chief ports of rendezvous during the fishing seasons, it was considered that it might not be necessary to build any large number in order to make them generally known, and that a short period would suffice for those to whom they were entrusted to form a correct estimate of their properties.

In the event of the experiment proving successful, it was believed that a great boon would thus be conferred on the fishermen and other boatmen of certain classes on the coast, as not only would numberless lives and boats be saved that in course of time would otherwise be lost, but that the boats would often be able to remain at sea and safely continue their fishing in threatening weather, instead of returning to the shore at great pecuniary loss to their crews, as is now too frequently the case.

Five of such boats were accordingly ordered,—three to be built in Scotland, one at Yarmouth, and one by the builders to the institution in London. Two of the boats built in Scotland, one at Peterhead and the other at Anstruther, have been tested and are now at work, having already afforded the utmost satisfaction to their crews, as will be seen from the following extracts of letters received at the institution.

Capt. A. Sim, honorary secretary to the Lossiemouth branch of the institution, writing from that place on the 18th of March, states:—“The safety fishing-boat sailed from Granton Harbour on Wednesday, the 13th inst., at 6h. a.m., and was here the following day at 5h. p.m., after lying to for some time off Peterhead, thus making the voyage in thirty-six hours—no bad test of her sailing qualities. She has been very much admired here by all the fishermen; in fact, the sea-faring population are unanimous in their opinion, that she is just the thing for this coast, and I trust she may be the beginning of a new era in decked boats.”

Wm. Boyd, Esq., honorary secretary of the Peterhead branch, also writes on the same date:—“You will be glad to hear that the new safety fishing-boat gives very great satisfaction. John Geddes, the

lifeboat coxswain, lay alongside the Lossiemouth boat in the Frith of Forth, and declares that she is a fast sailer, having accomplished the run from here to Granton in thirteen hours. She works well and satisfactorily, but she has not experienced such bad weather as would thoroughly try her safety powers."

The interior fittings of the boats have been so arranged as not to interfere with their everyday work, yet so as to enable them to be quickly made insubmersible.

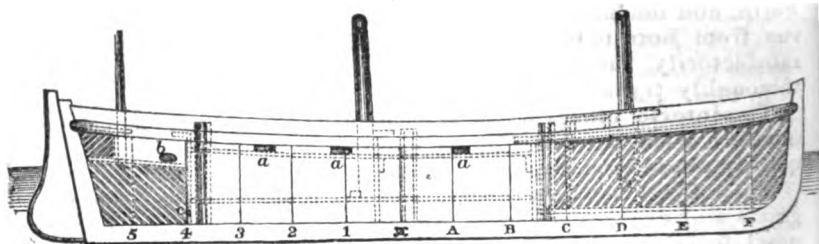
This object has been effected, as is clearly shown in the eight diagrams and explanations prepared by the society. 1st. By making the usual forecabin a watertight apartment, the access to it being by a watertight hatch in the deck, instead of an open door at the side. 2nd. By making the usual compartment at the stern also watertight. 3rd. By running a side deck along either side, as in barges and in some of the smaller class of yachts called well-boats. Thus leaving a large open main hatchway, of sufficient size for conveniently working the nets, yet which, by the aid of coamings and hatches, and a watertight tarpaulin, stowed away in the hold or forecabin in fine weather, could in a few minutes, on the occurrence of bad weather, be securely covered over so that no water could get access to the hold on a heavy sea breaking over the boat. The inspection of a common coasting-barge with her hatches on and covered over, will convey an exact idea of the simple manner in which the above arrangements are carried out.

The size of these boats,—viz., length 40 feet, width 14 feet, depth amidships 7 feet,—has been selected as the most convenient size for use both in line and net fishing. A sixth boat, however, 45 feet long by 15 feet wide, is about to be built for Anstruther, where the fishing-boats go as far as 100 miles from the land to fish, and have lines on board of the total length of 23,500 yards, or nearly 13½ miles, which require a large space to stow them away all coiled in baskets, besides a cargo of fish.

The committee of the National Lifeboat Institution entertain sanguine hopes that this experiment will be ultimately productive of much benefit, both by saving life and property.

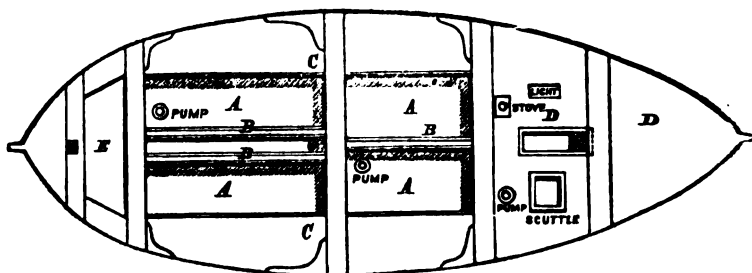
In conclusion, it may be stated that the National Lifeboat Institution has been engaged during the last two or three years in perfecting this model of the safety fishing-boat. Captain J. R. Ward, R.N., its inspector of lifeboats, has visited during that period some of the principal fishing stations on the coast of the United Kingdom, with the view of eliciting from the most experienced fishermen practical suggestions, to be incorporated in the construction of the boat; so that thus she may be correctly termed an *omnium gatherum* safety fishing-boat. It may also be mentioned that the drawings of the boat have been furnished by Mr. Joseph Prowse, of her Majesty's dockyard, Woolwich, who, with the kind permission of the Admiralty, superintends the building of all the lifeboats of the institution.

FIG. 1.



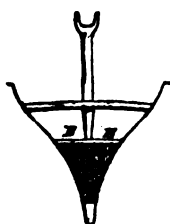
Sheer Plan.

FIG. 2.



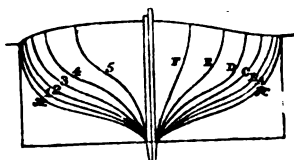
Deck Plan.

FIG. 3.



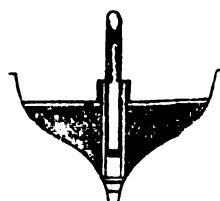
Section at 5.

FIG. 4.



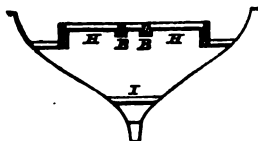
Body Plan.

FIG. 5.



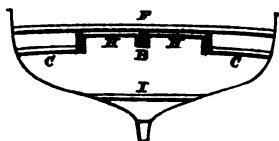
Section at D.

FIG. 6.



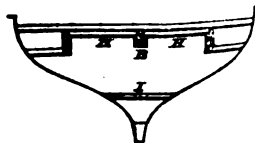
Section at 3.

FIG. 7.



Section at X.

FIG. 8.



Section at E.

Explanation of the Engravings.

The accompanying Figures show the general form, the nature of the fittings, air compartments, shifting coamings, and hatches of one of the safety boats, 40 feet in length and 14 feet in breadth.

In Figs. 1 and 2, the elevation and deck plans, and the general exterior form of the boat are shown, with the sheer of gunwale, length of keel, and rake of stem and stern post.

The dotted lines of Fig. 1 show the position of the compartments, bulkheads, masts, pumps, thwarts, and shifting flat or deck. *a*, Scuttle in boat's side above the side decks. *b*, Scupper in boat's side above the stern deck. *c*, Screw plug, to drain the stern compartment.

In Fig. 2, *A* represents the open hatchways of the main hold, to be covered with portable hatches and a watertight tarpaulin cover in gales of wind; *B*, shifting coamings for the hatches; *C*, the side deck; *D*, the forecastle deck; and *E*, the stern deck.

Fig. 3 represents a section at the after air compartment, showing the thwart, and crutch to receive the mast, and the stern deck.

In Fig. 4, the exterior form of transverse sections, at different distances from stem to stern, is shown.

Fig. 5 represents a section at the fore air compartment, showing the thwart and mast.

In Fig. 6, the shifting coamings over the main hold are shown, with the portable hatches (*H*) in place, and (*I*) the shifting deck or flat.

Fig. 7 represents a midship transverse section, *F* the thwart, *C* the side deck, *B* the shifting coaming over the fore hold, *I* the shifting deck or flat, and *H* the hatches in place.

Fig. 8 represents a section abaft the foremost bulkhead, showing the shifting coaming (*B*) and portable hatches (*H*) in place, and (*I*) the shifting deck or flat.

VOYAGE OF THE "PIONEER."—No. 5.

(Continued from page 192.)

On the night of June 9th, blowing hard with a rough sea, we lost our bowsprit, and from this time to the end of the passage we had nothing but bad weather.

As we drew up the Bay of Bengal the barometer fell; and this, with a hard metallic sky (when it could be seen), left no doubt that a gale was coming on. With the vessel already weakened amidships, I should have gone into Coringa for shelter until the bad weather was over, but with the wind ranging about the West point of the compass there was nothing for it but to keep the sea, and do our best.

On the 13th I became uneasy about our chance of making False Point, as the wind sometimes ranged North of West, and drove us to the Eastward. So, after watching for a glimpse of the sun for hours, by a hasty sight in the afternoon I found that we were still far enough to windward to sight the coast.

This was the only observation for longitude I had in the bay, and

as so much depended upon the position of the vessel at this time, I looked for the result of the sight with an anxiety which a seaman only similarly circumstanced can know; for had we been too far to leeward to fetch the "sand heads," we must have run for the Arracan coast, and remained there until the next N.E. monsoon.

On the morning of the 14th we made the land, and shortly after saw the Juggernaut Pagoda, when a course was shaped for False Point with a tolerably smooth sea under the lee of the land, but with an ominous booming of thunder now and then, and with a livid sky, not to be described or forgotten.

As the day closed there was not a speck in the heavens which did not threaten a wild night; and as the thunder neared us and the lightning became more vivid, we could not doubt what was coming. At 8h. p.m. we were abreast of False Point Light, and from there steered for the pilot station at the eastern channel, with the bare possibility of getting a pilot on board. The right course to have adopted in a *sea-going* vessel would have been to stand out to sea until the gale was over; but I knew if I did this in such a vessel as the *Pioneer*, I must give up all hope of reaching Calcutta until the end of the year, and I was resolved to try for our part to the last.

As the night darkened, the wind increased, the sea rose, and the whole Northern heavens from West to East seemed on fire with much lurid forked lightning, while the thunder crashed over and around us, in which our frail craft trembled as if her last hour had come. So indeed it seemed, when just before midnight the first fury of the gale fell on us, only giving us time to head out to sea under a storm-sail, to be driven away at the mercy of its raging waves under an increasing gale, with all hope lost of reaching our port when almost in sight of it, and this too after being five months at sea, and after escaping perils of a kind not known to vessels built for sea voyages.

As the gale increased and the sea became higher, the vessel began to strain her fastenings amidships, where she had been weakened in a former gale, and when daylight broke and a ship was seen close to us the thought occurred to me of hoisting a signal of distress for her to remain by us. But I did not feel our case was so bad at that time as to warrant this, and I also felt doubtful whether any vessel would remain in company with us on our account at our rate of drift, which was so great that an hour afterwards the ship was out of sight.

Regarding signals of distress, there are two reasons why they should be used only in extreme cases. 1st. If this signal were resorted to on no occasion but actual peril and necessity, we should not so often hear of ships passing by without heeding such a signal. 2nd. The danger of a panic among the crew, with all its evil consequences, chief of which is loss of discipline; and while every case must be judged on its own merits, a commander of a vessel, whether she be a line-of-battle ship or a fishing smack, ought rather to perish with his ship in the performance of his duty than to save his life by abandoning his duty.

Away we drifted, and as the vessel was lifted up on the top of a wave two ends would go down so as to make a ridge on the deck

amidships, where nearly all the fastenings had gone, and where the deck began to crack and creak as the strain fell on it to keep the vessel together.

Towards noon of this day (the 14th) the barometer fell to nearly 28 inches, and the appearance in every direction showed us that we had not yet had the worst of the gale, while every sea that struck our poor craft made it more and more certain that she could not hold together much longer. There was now only a forlorn hope left for us, and this was to put her head towards the shore, and, if possible, run her over the sands. This was a desperate resolution, but our condition was desperate, for we should have foundered before night. For the first time during my nautical life I felt that certain destruction was near if nothing else could be done, and before putting the vessel round I called her officers down to the cabin and offered up that prayer which is used at sea in times of great peril, and then we went on deck to do our best and prepared for the worst. Providentially the vessel wore round easily, and after getting her to head N.E., set as much low-storm canvas as she could carry, and so ran for our lives on a course that would lead to certain wreck in a vessel of ordinary draught.

Of the many pictures of vessels in distress and peril at sea, few could impress the beholder with a more graphic sense of peril than that of the *Pioneer*, when to escape the certainty of foundering she was steered for the most dangerous part of the Bay of Bengal; and as she rose and fell with each sea, she would appear as if made of two parts loosely joined together in the middle, as her ends were lifted and lowered by the action of the waves. All that day and all through the awful night which followed we ran,—a night in which the crash of thunder, and roar of the sea, and rush of the vessel through the water, were sounds unheeded by us. But when another more startling and ominous noise was heard from below, as the ship's fastenings gave way with a sharp report, like a rifle, until about 2h. a.m., in the middle watch, when the last and loudest of these was heard, then indeed we doubted that we should ever see daylight. We knew now that the deck only was left to keep our wretched craft from breaking up, and was all that held her two parts together.

All hands were on deck, and the pumps were continued always going, by which the water was kept under; for the rush in at the broken sides was much checked by a shield of planks and swabs—a contrivance of the engineers—and without which we could not possibly have kept afloat. The deep-sea lead was kept going all night, and just before daybreak we got soundings in 13 fathoms, by which I knew we must be near one of the numerous sands running far out to the southward from the sea face of the Sunderbunds.

At daylight we found the water very discoloured and rapidly shoaling, with breakers in every direction excepting to the S.W.: all looked as if we were running to certain destruction, for some of the breakers were of a kind that no vessel could live near; still I knew there was nothing for us but to go on, and if we could get over the rollers, and so escape the breakers, we might yet save the vessel. I gave the first

officer charge of the lead, and the second charge of the steerage, and then went up on the foreyard with a spy-glass to pick our way clear of the shoal patches.

About noon we caught sight of the shore, which is very low at this part of the head of the bay: we could see only the tops of the jungle trees. We had now left the heavy seas behind us, and for a time the gale lulled; and as the breakers were in detached masses, we were able to steer between them, going over the rollers without further injury to the vessel, as they only rushed up over the rail on to the deck until we cleared them. Although we could only see the tops of the jungle trees, the sight of them was a great relief to us, whatever might lie between the vessel and the shore.

As the day waned the gale rose again, and there was every appearance of another wild night, with no signs of shelter, until just before dark a patch of breakers was seen on the lee bow, over which there was no chance that we could go. So when near them we brought up with both anchors; and, however dangerous the place was, there yet remained a hope of saving our lives in the two small boats, even if the vessel should founder at her anchors in the course of the night.

W. C. P.

(*To be continued.*)

QUALIFICATIONS FOR COMMAND OF MERCHANT SHIPS.

In the April number of the *Nautical*, "An Old Sailor" has commented on the degraded position of the officers of the merchant service, owing to the ridiculously low standard of the examination for masters and mates. And really this examination is such, that any one who has passed through a village school may master with ease. As there is no limit to the number of trials which unsuccessful candidates may make, the ranks of merchant commanders are filled with a discontented class, who are neither valuable as seamen nor officers, but who constitute a very large portion of that troublesome biped, the sea lawyer. During a recent voyage my ship was half manned with seamen of this class, who failed to perform their duties to the satisfaction either of myself or their shipmates. When it is borne in mind that a first-class *extra* examination does not embrace a single line of mathematics, we may readily believe that four ranks lower it is not worthy of the name.

If the officers of the merchant service are really desirous of raising their position, and securing a better market for their services, the good work must be commenced by raising the standard of qualification. Probably no man is more called on to act under trying circumstances than the shipmaster, and too many entirely break down under the responsibility which occasionally falls to their lot.

The "old sailor" in the April number very properly remarks that

navigators of iron ships should possess a fair knowledge of the laws of magnetism. Having recently commented on the loose system which is in vogue in the manufacture and adjustment of compasses, I may add that I entirely concur in his views, as it is not uncommon to find a merchant-ship's compasses so erroneous that the bewildered skipper is in doubt by which of them to steer. Not long since I came to England in a steamer from Smyrna. The captain was a good-natured, easy-going man, who had spent the greater part of his life in the coasting trade, and knew but little of the simplest rules of navigation. We coasted along the African shore, making each well-known headland and town until it became necessary to steer for the coast of Spain. The weather became squally, with drizzling rain, and the passengers retired early to their state-rooms. At 11h. in the night we were aroused from our first sleep by the shouting of the captain, the hurried trampling of many feet overhead, and the shaking of the heavy sails as the ship came to the wind. Hurrying on deck, I saw land close to us on the starboard side, and the heavy surf breaking against the shore. "Confound your azimuth compasses," quoth the skipper. "I paid a fellow six pounds for that when I left, and it is not a bit truer than the others; I will not trust to it again."

Now, here was a man in command of a ship with twenty passengers and a valuable cargo of silk, opium, &c., who was so ignorant of the rudiments of his profession as to believe that an azimuth compass should point *truer* than an ordinary one. We coasted to Gibraltar, rounded Cape Trafalgar, steered for St. Vincent, and saw the light at 10h. p.m. about three points on the port bow. "This bridge compass appears to be out, I will try the steering," was another remark of this commander. The steering compass certainly led the ship during a tempestuous night near the dangerous reefs of Point de Bec, and compelled us to stand to the westward for eight hours, in order to clear Ushant on the other tack. Now, apart from the risk to life and property, it is evident that such a commander, however slender may be his pay, must sink more money than would be required by a first-class man at highest wages. This ship ultimately foundered at sea in a *peculiar manner*!

The editor of the *Nautical Magazine* will be surprised to learn that but a small number of officers in the merchant service are even familiar with the use of the artificial horizon. On ordinary voyages the rate* given by the chronometer maker is invariably used, and on long voyages the sea horizon. I have known ships to leave port with chronometers greatly in error, *because the sea horizon was not visible* where the ship lay!

As a rule, English shipowners† have not much knowledge unfor-

* Oh yes; we have heard of such a thing before, even on a voyage to Rio Janeiro and back.—ED.

† A knowledge of the compass, or the science of navigation or seamanship, is not necessary for the qualification of a shipowner. The safeguard for *his*

unately of the essentials required to ensure the efficiency of their vessels. Economy is the great object sought for, often unwisely. It is this which induces them to contract with the cheap compass maker for inferior articles. The latter, however, contrive to make a very handsome percentage by a mysterious process, known in the trade under the name of "touching." At the end of voyages which extend over a period of about six or eight weeks, the compasses are regularly taken to the shop, and charged for accordingly. In the Royal navy they frequently remain in the binnacles for five years, without undergoing any sensible loss of power!

The gods help those who help themselves. On shore men form themselves into associations to advance the welfare of their class. The officers of the merchant service and agricultural labourers are now the only unrepresented men.

MERCATOR.

[On this subject the reader will find remarks in our numbers of this year, besides much more in many of the former numbers of this journal.]

A GLIMPSE OF PORTSMOUTH.

Englishmen must acknowledge that their country does not hold that high position among nations which she did in years gone by; not that her power has grown less, or her people degenerated, but from the fact that other countries have advanced in a greater ratio than she has done in military organization. We so far acknowledge the fact, that the wish is becoming general throughout the land to call in garrisons from distant outposts, and concentrate our strength around the citadel of our people. We are driven to this course for another reason also,—viz., the growing disinclination of men to enlist for foreign service when so many attractions and inducements are held out to the able-bodied at home.

The fear of an invasion by the forces of any continental power has long since ceased to occupy men's minds, and our great end is now to fortify securely the arsenals and dockyards against sudden attacks, and to hold these same in such a state of efficiency that they may be able readily to fit out or repair our fleets in the shortest possible time should an emergency arise.

The first in importance, from its great natural advantage of position in the Channel, is Portsmouth. Hitherto Portsmouth has not received

property consists in a thorough acquaintance and a timely resort to marine insurance. Why should he trouble his head about anything else in this our land?—ED.

that attention to which it is deservedly entitled. The dockyard is but ill provided to meet the pressing necessities of a steam fleet after an action. Even in times of profound peace, it is mortifying to find the constant delays which take place in fitting out our iron-clad ships of war. It is not uncommon to see one undocked before she is ready for sea, in order to allow a second to pass through her place, so low is the water on the dock sills during the neaps. Again, the jetty room is no more than sufficient for the use of our steam transports and coasting craft since the recent augmentation of that important branch of the Royal Navy. This defect, to the great annoyance of all parties, obliges us to have recourse to lashing our ships fitting to hulks in the harbour, thus occasioning loss of time more or less, from the tide and weather, at all seasons of the year, by the workmen having to pass and repass by boat to their work.

Another source of expense and inconvenience are the hulks themselves, as they idly swing at their ponderous moorings year after year, occupying harbour room, to the great detriment of ships mooring in it. A word or two here about these same hulks, which form the home for officers and seamen while fitting out. Probably no class of public servants in England would be permitted to live in such discomfort as sailors do in these barbarous relics of bygone days. These floating lodgings are barren of all comfort or convenience. They are not provided with a single article of furniture. The officer has not even a drawer in which to lay his clothes, and on joining not a chair to sit down on, or even means to procure a meal. In times of winter, the whole of the interior after a thaw is wet—everything as if steeped in water, which drops into the seamen's hammocks or into officers' bedding! What a contrast when he comes fresh from the comfortable barrack-room on shore. Such a condition of a hulk in the latter half of the nineteenth century points out that barracks are a positive necessity, if the health and comfort of our seamen are to be considered as worthy of attention. Who can wonder, when necessity keeps them on board, that they would rather share the comforts of the low public-house, compared with their wretched mess-table, on a long winter's evening? There can be but little doubt that this a fruitful incitement to crime, causing men to sell their kits, in order to raise a trifle to enable them to keep more on shore.

The coaling arrangements are equally defective at Portsmouth. The very cost of unnecessary labour would in a short time amount to sufficient to build the most costly coal drop. It may not be amiss to allude to the method at present pursued for coaling her Majesty's ships. The practical men of the day may then decide whether such a plan should be longer tolerated where dispatch is almost synonymous with success, to say nothing about economy. The *Betsy Jane*, or such bluff-bow'd craft of similar build, plods her way from Newcastle and Swansea with a heavy freight in few or many days, according to the state of the weather. On arriving at Portsmouth, their cargoes are, with considerable labour, discharged into one of the hulks. After lying there.

few or many days, the coals are again filled into sacks, hoisted up, and sent by lighters alongside the ship which requires them, to be got on board by manual labour. Thus each ton of coals costs about three shillings more than it would do if *the whole process were done from the shore*. Apart from this is the fact, that good steam coal is seriously deteriorated by such frequent handling, and during a French war delay would assuredly be productive of the most serious consequences.

There is ample room in this noble estuary to build piers and basins in which to refit the whole Channel fleet. At present only a very limited number can be taken in hand at the same time with any reasonable hope of making satisfactory progress.

Misgivings and anxiety about the filling up of the channel from Spithead have lately been entertained owing to the formation of two new shoals, carrying 18 and 19 feet respectively. But it appears that they owe their origin to the starting of a ballast lighter's load of shingle from the works now in progress. They lie in spots subjected to the full scour of the tide, where it is highly improbable such accumulations could be formed by natural means.

Chatham now appears to be the spot chosen for our great naval entrepôt. Why is this? Is it convenient and accessible at all times? No. Is it in a commanding position with reference to an enemy's approach? No. Then why should our resources be expended on such a spot, and Portsmouth neglected? Are we in dread of a hostile fleet again sailing up the Thames, and making the thunder of their artillery audible on Tower Hill, that we are contriving an *inaccessible* retreat for the navy of England amidst the mud swamps of the Medway?

It were better that we quietly turned our attention to the selection of a favourable spot on the *Eastern shores* of this island, where an establishment might be formed to meet the danger with which we are now threatened from the vastly increasing power of the navies of the whole of the Northern powers of Europe!

It is tolerably certain that at no very distant period Prussia will absorb the free cities of Europe. Indeed, they would offer no objection to such a course, as the remembrance of French domination has not yet passed away from the minds of many now living in those flourishing emporiums. When this occurs Prussia will have the command of a large force of seamen, scarcely, if at all, inferior to our own in strength, courage, or endurance.* We could not afford to be out-flanked in such a fashion by such a people, without subjecting our-

* Which seamen, let it not be forgotten, *we ourselves* are doing all we can to make into ABs, by employing them in our own merchant shipping in the proportion of two to one—two foreigners to one Englishmen—that our country may benefit by her trade at the expense of losing *her* seamen, and making seamen of foreigners for the benefit of the countries to which they belong. How passing kind this of old John Bull! Surely his ears, like those of a certain useful animal, are becoming the most prominent appendages of his person.—Ed.

selves to humiliation. England must always be prepared to fight against any combination which may arise on the Continent. If so prepared, few will care to affront us. No one loves to arouse the anger of the strong man armed. Let England take care what she is doing.

THE MARITIME ARSENAL OF SOURABAYA.

Sourabaya is situated in the narrowest part of the Strait of Madura, and about two miles into the interior of the island. The ground on which it stands is a flat alluvium of recent formation, and surrounded by marshy land, which is penetrated by the sea. A river, called the Kali-Maas (river of gold), the source of which is at a considerable distance in the interior of the island, forms into two branches just before reaching the town. While one of its streams divides Sourabaya into two equal parts, the other just enters it, and falls into the sea about half a mile to the East of the former. The principal branch is straitened from Sourabaya to the sea. The current in it is very strong, and always running down; the flood or ebb stream being neither of them felt except by producing a difference of level, according to the diminution or augmentation of the current.

This canal is the high road of intercourse between the roadstead and the town, which is accessible to all vessels of less than 12 feet draught. To overcome the current the boats are tracked up, and on the left bank of the river is a track road for the purpose.

The Dutch have desired to make Sourabaya the chief military post of Java. So, besides a strong citadel built at the commencement of the town on the right bank of the river, there is an enceinte with bastions, entirely surrounding the town on all sides. This enceinte is very wide; but the importance of the town must not be judged by its dimensions, for there are no houses of stone excepting those along the quays, and these are only about 300 or 400 metres on each side of the canal. The rest of the enceinte is filled one half by swamps and the other by the straw huts of the Malays.

The left bank of the canal is reserved for the houses of Europeans and the various government establishments; the right bank is occupied by the Arabs and Chinese. The Europeans who live there are generally military and civil functionaries of the government and some small merchants, who have only their houses of business in the town, their dwelling-houses being outside of the enceinte. It is the same with those carrying on business, who do not employ more than two hours of the day steadily in their office. All these buildings are echelonnées towards the river South of Sourabaya, and extend to two or three miles from the centre of the town.

CAMBOJA.

The coasts of Camboja and Lower Cochin China have been and may still be the nests of pirates and such dangerous marauders, and it is the same of the numerous islets which border the coasts of the French possessions there.

From Kang-kao, in the Gulf of Siam, to Cape St. James, the coast of the peninsula is extremely low. This cape, which is the first land that is made on the coast, is situated at the entrance of the River Saigon, the finest of Asiatic rivers, which may be ascended by large vessels to a distance of sixty miles. It communicates by its upper branches with the great river of Cambodia (the Menam-kong, or Mekon), the source of which is unknown, but is a large lake. But the River Saigon is said by the natives to be navigable for twenty days' journeys by the country boats,—that would give it a course of 400 miles; and they add that it takes its source in the mountains of Lao,—but this is not yet verified.

Cape St. James, a high promontory, visible twenty miles distant, is distinguished by a lighthouse. It is fortified, and has a guard of twenty men. A submarine and overland telegraph would place this little garrison in communication with Saigon and intermediate points; and while this is under consideration, and the native mind prepared for the subject of electric telegraph communication, it would be desirable for the local authorities, by the construction of a chapel, to make Catholics of some of the natives. They would come and settle on the banks of the little river which falls into the harbour to the N.E. of Cape St. James. By their occupation of fishing they would be well adapted for navigating the coast; and, when wanted, would carry orders to Saigon under any circumstances. They would form a small auxiliary flotilla, which would thus only be paid as required.

Pulo Condore, Pulo Ubi, Pulo Phuquoc or Koh-Duc, are islands of considerable importance.

Pulo Condore is a name unknown to the natives, who call it Pulo Kohnaong, isle of pumpkins or gourds. It is in about lat. $8\frac{1}{2}^{\circ}$ N. and long. $106\frac{3}{4}^{\circ}$ E. of Greenwich. It is formed of a group of twelve islets, the largest of which is twelve miles long and four broad. The rest are mere rocks; but it is there where the Malays assemble when they make their excursions on the coast of Cambodia and Cochin China. From its roadstead, which receives large-sized vessels, the bay presents a fine view. An amphitheatre of mountains, terminated by a bold coast, forms the boundary of the roadstead to the South and West, and it is sheltered from the North and East by the islets of the group.

In the sheltered parts of this island there are some fine forests, good specimens of the luxuriant vegetation of the tropics. The mango and cocoanut abound, with a variety of fruit and vegetables. The natives

cultivate a little rice in the lower grounds, but they obtain part of their provisions from the market of Saigon, where there are some cattle, monkeys, squirrels, turtle, and abundance of fish. Oil is made there from certain woods of the forest; and the natives, the number of whom is uncertain, pay a tribute of turtle to the King of Annam.

A YACHT VOYAGE TO THE SANDWICH ISLANDS.

We have not recorded a yacht voyage in our journal, and one to the Sandwich Islands and back is an occurrence worth relating. We preserve therefore the following, and trust it will prove an example to be followed, to one of the most interesting groups on the surface of the globe, abounding in natural curiosities, and boasting a volcano to which all others are trifling in point of size.

A paragraph was inserted in the *Hampshire Independent* some two or three weeks since relative to the recent voyage of the Royal Victoria Yacht Squadron schooner yacht *Themis*, just now dismantling at Payne's, in the Itchen, describing it as a voyage "round the world," which was an error that it is desirable to notice only because the real character of the voyage was infinitely more important and remarkable. Though not round the world, it was to the Sandwich Islands, and back through the Sarmiento Channel and the Straits of Magellan, the latter part of which at least is of great importance to navigation, as saving a very considerable distance, and as an evasion of the tremendous sea and much of the inclemency of the weather in the higher latitudes rounding Cape Horn, for which that cape is so notorious. Though offering such advantages, these straits, even independent of the Sarmiento Channel—which is an additional inner navigation, branching North-west and North from the western part of the Straits of Magellan, of over 300 miles more—are a bugbear amongst sailors, being for the most part tortuous and very narrow, and containing many dangers, some of doubtful position, others only suspected, with strong currents, barren inhospitable coasts, ungenial climate, and much of the violence and fitfulness of the wind of the outer track. The whole region, in fact, is so repulsive, that the exigencies of a seaman's duties seem to form the only reasonable motive to any practical acquaintance with it. By them and professed geographers only can the full merits of this extraordinary and eminently successful enterprize be duly appreciated. Nevertheless, there is much in its more palpable characteristics so popular and obvious as highly to deserve very general notice, recognition, and admiration.

The general estimation of the benefits accruing to the country through our numerous yacht clubs is no doubt very high, but probably defective withal. Fashion, recreation, excitement, or health are not by any

means the sole motives to their existence; nor are the employment of so many men and the incidental expenditure of so much money the only beneficial results from them, of which this voyage is a superlative, but by no means a solitary evidence. Notably, but almost unwittingly, was the world largely indebted to Capt. Allan Young, the spirited owner of the *Fox*, in the later Arctic expeditions, as also subsequently in investigations to facilitate the laying of the Atlantic telegraph; but this is neither the place nor the occasion to multiply instances, which abound, of a similar kind, nor for the most part will the individual principally concerned be very thankful for their public display. It may be feared that such is the case with regard to the voyage now under notice; but the instruments of public information, fully sensible of this, must not be governed by it alone.

The *Themis*, formerly the *Titanis*, is an iron schooner of about 140 tons, and was built for Stephenson, the eminent engineer, under his own supervision, by Scott Russell. Her present owner, Captain T. B. Hanham, having fully tested her very superior qualities in a voyage up the Mediterranean, conceived the idea of making a voyage in her to the Sandwich Islands and back; and having noticed an article from the pen of the captain of a fine steam frigate, in his estimation of a most unsatisfactory and inconclusive nature, deprecatory of the passage of the Straits before-mentioned, he resolved to pass through them on his way out, and to return by the Sarmiento, &c., Channels into the Straits, for as close an investigation of the whole as circumstances would permit him to make in his track homeward. He endeavoured to secure the company and assistance of some accomplished naturalist and other scientific person, which delayed his departure considerably, and after all, on the 17th of April, 1864, Capt. Hanham was forced to start without them, with his lady and her attendant, and a crew consisting of a chief officer (who had been a naval lieutenant), second mate, carpenter, six able seamen, steward, cook, and boy. The chief officer and steward had recently joined the yacht; the rest of the crew had been well tried in her before.

The *Themis* touched at Madeira, Tenerife, Rio, in the River Plate, and Port St. Julian (where the grave of a naval officer was visited and fully restored by the crew), and on the 30th of August she rounded Cape Virgin into the eastern entrance of the Straits, clearing them by Cape Pillar, at the western entrance, early in the morning of the 12th of September, being a week or ten days before (in those latitudes) the vernal equinox. It was not, however, till the 13th of December that Capt. Hanham took his departure from the West coast, from Callao, for the Sandwich Islands, with an unbroken distance of over 5000 miles of seaway before him. The chief officer having died off the Island of Masafuera on the 4th of November, the owner himself was from that time the only person on board possessing the slightest knowledge of the science of navigation, in which it was thenceforth part of his care to instruct one or two of his crew.

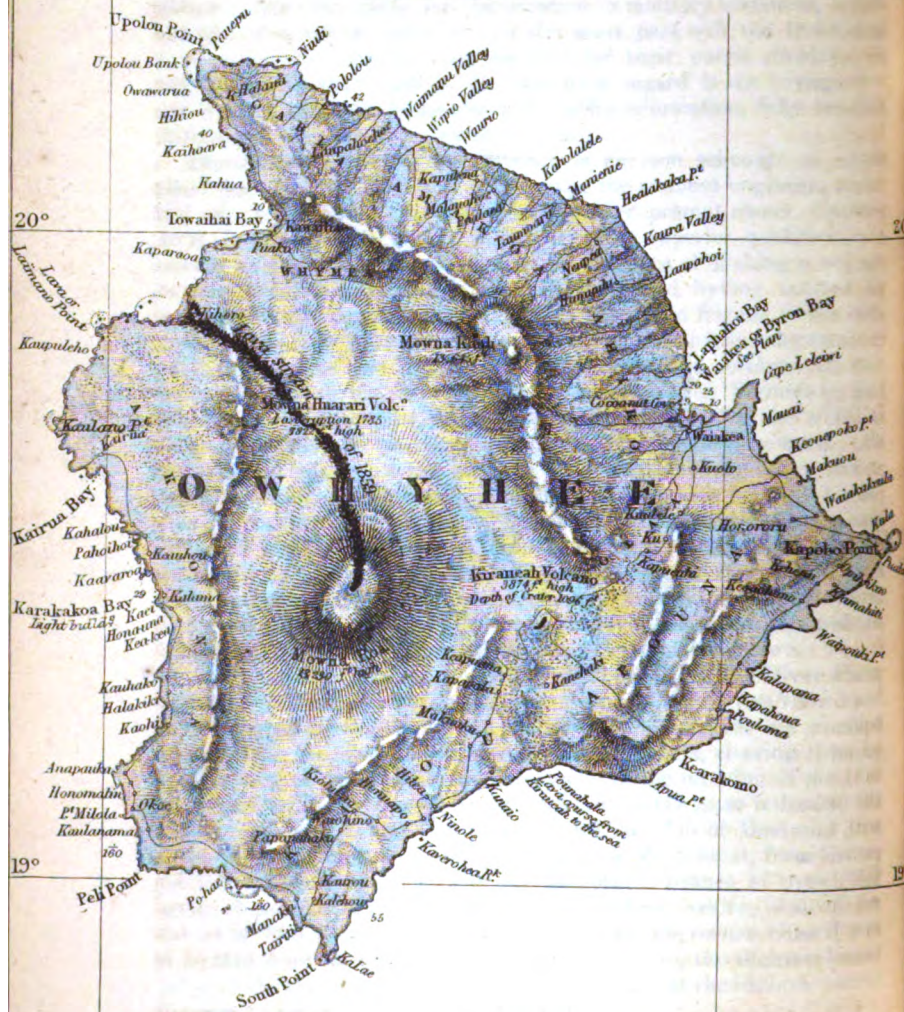
Hawaii was made in forty days, and from the 22nd of January, 1865, till the 29th of November, the *Themis* was kept cruising about amongst



FROM THE ADMIRALTY CHART
OF THE
SANDWICH ISLANDS.

The course of the lava stream in 1859 is indicated by the dark jagged line proceeding to the North West from the Volcano.

Scale of Miles.



155° W. from Greenwich.

those islands, every anchorage in them being once or oftener visited, much to the advantage of the native and other authorities—princes, governors, ministers, and bishops—who were freely conveyed backwards and forwards as public duty or private inclination led them to desire. Meanwhile, one of the King's houses was appropriated for Capt. Hanham's use on shore. These and all analogous incidents are, however, beyond the scope of this narrative; but there seems some reason to hope, as they are for the most part interesting and amusing in no ordinary degree, that they will be presented to the public by the owner of the vessel himself at some future period.

On the 29th of November, 1865, the *Themis* left the islands on her homeward voyage, taking the track to the southward through the Marquesas group. On the 2nd of December, a magnificent mastiff, the captain's constant companion for several years, and well known in Southampton—for which the Grand Duke Constantine had made perfectly fabulous offers* to the owner—died. On the 13th, he lost his steward; and on the 6th of the following month (January 1866), the irreparable affliction of the death of his most estimable and accomplished lady (eminently wise, self-possessed, cheerful and courageous, although an invalid,) fell upon Capt. Hanham, and left him desolate indeed, of counsel as well as of companionship.

Valparaiso was reached on the 8th of February; and on the 21st, having thoroughly refitted for the grand feat of the voyage, the vessel sailed thence for England by the track before indicated, which, notwithstanding the very altered circumstances in which he was placed, and the sore temptation to hurry home to deposit in the last resting-place assigned for them the remains he had carefully preserved, Capt. Hanham would not abandon. Accordingly, though entirely dependent on himself the navigation of the yacht, justly confident in the character and seamanship of his mate, and the fidelity, endurance and zeal of his crew, the captain drew up such instructions for them as were best suited to meet the emergency of anything happening to himself, which from time to time afterwards, almost daily, he had to alter and adapt to circumstances.

On the 19th of March, corresponding to the time of our autumnal equinox, he entered the Gulf of Penas and the Sarmiento Channel round Byron's Island,—a spot to be recalled with all its repulsiveness to the minds of all readers of voyages and shipwrecks as that on which the *Wager* was lost from Anson's squadron in 1741. Byron's track, with his companions, from this place was to the northward, into an improving climate and region: this of the *Themis* was the reverse. From this date till the 23rd of May, when she cleared the Straits and again rounded Cape Virgin into the South Atlantic, the yacht was involved in this narrow intricate navigation, exploring either by herself or her boats promising inlets and reported channels, which often proved to

* Five hundred guineas were first refused, when *carte blanche* was vainly offered for the noble animal.

be barred,—examining anchorages, and places for supply, shelter, and security,—ascertaining the existence and correct positions of suspected dangers, and certifying known ones,—in all cases seeking for and not evading them; often, overrunning or falling short of the intended shelter for the night, compelled to unremitting exertion and anxiety in frost, sleet, darkness, and storm, and narrow winding water, for forty-eight hours at a stretch,—the captain's own skill, energy and pluck nobly seconded by his mate and crew, whose entire confidence, affection, and respect for him never wavered, bringing them through with unflagging cheerfulness, and without a single mishap—a phase of amateur seamanship surely well worthy of the public knowledge.

It may be added that at Rio, when our political relations with that country were entirely suspended, the *Themis* was honoured by a lengthened visit from the Emperor, who expressed high admiration at the enterprise, and in a very marked manner gave utterance to his thought that none but an English gentleman would find his account in it,—sentiments and manifestations of consideration which were fully evinced by the French admiral then there; by the captain of a Russian frigate found at Monte Video (who overtook him in the Straits on the 5th of September, anchoring near and towing the yacht when under weigh, till well clear of them on the 12th); by the Chilians and by the Spanish admiral and squadron on the coast; by Americans and others at the islands; in short, by all throughout under whose observation she fell, and not least by the captain and officers of the British steam frigate *Devastation*, fallen in with in the Straits on his return, to whose warm sympathy was added much valuable assistance in every desirable way.

Landing at Monte Video the principal cacique of South Patagonia and his daughter, whom Capt. Hanham picked up in the Straits (considerably to the alarm of his crew, by landing and advancing to a considerable group assembled some little distance from the beach), who could speak a little Spanish, and ultimately begged to be so conveyed, he quitted that place on the 12th of June, impatient for home; and it must not be omitted, being strongly indicative of the state of feeling that existed between owner and crew, that though, through an act of carelessness on the part of the cook or the boy, provisions fell very short indeed for the last two or three weeks, they so well understood and respected the captain's desire, that on putting it entirely to their decision, whether the yacht should be put out of her direct track to supply the deficiency, they unanimously decided to run all risks and keep straight on.

The *Themis* reached Falmouth on the 23rd of August, and almost immediately afterwards the whole crew attended the deposit in the spot prepared for them in Dorsetshire of the remains of her they all loved so well in life.

REVIEW OF THE YEAR 1866.

(Concluded from page 205.)

England! Unto thy guardians belongs
 To meet all this! nor trifle with such wrongs.
 The change is radical;—it must be met
 With measures similar, or thou'lt be swept
 From that high station which thou once did fill
 Throughout the world,—at any nation's will!
 Thy fleets indeed, though wooden walls they were,
 Swept ev'ry sea,—with all the world astir!
 When nation had with nation to contend,
 Thy fleets would dictate to the foe or friend:
 And more than this, for well could they defend
 Thy shore from foreign enemies without end;
 Yet do thou beware! Those days are past,
 And change, inevitable change, moves fast!
 Iron and steam can soon thy shores surround;
 "Ready, aye ready," yet may thou be found.
 What though expensive outlay is required,
 Hast thou not as much iron as desired
 T' enable thee to reconstruct thy fleet?
 Then do it quickly, if the foe thou'd beat!
 Remember that thy country's in the case,
 And to her safety minor things give place.

What craft was that which anchor'd at Spithead
 Some short time since? * A monitor, 'twas said,
 From New York came, merely herself to show;—
 A craft once seen, not difficult to know;—
 A nondescript she was declared to be;—
 Some raft, or dredging craft, unfit for sea.
 The Nautic world was taken by surprise,
 And seamen scarcely could believe their eyes;
 That such a craft had cross'd th' Atlantic wave,
 That stormy ocean she had dared to brave!
 Long, low, and flat, and nought to catch the blast;
 Nothing, indeed, had she in shape of mast:
 Nor stitch of canvas, to save from foe or wreck;
 And nothing to be seen above her deck
 (That deck 'bout two feet higher than the sea)
 Saving two turrets for artillery.

* The *Miantonomah* first anchored at Queenstown (Ireland) on the 16th of June, 1866; afterwards visited Spithead, Cherbourg, the Baltic, and then went to the Mediterranean.

Artillery! aye, such as ne'er was known
On the blue wave afloat, so overgrown!

Monstr' horrend' inform' ingens cui lumen ademptum,*
The visitor might exclaim, asking whence does the light come?
Provided he has happen'd to have read
That happy line of Virgil, which, instead
Of light, has sight; but which is nought amiss,—
For sight without light is all parenthesis:
And light on board this craft is very rare,
And so indeed is atmospheric air!
Nor need we wonder at the loss of these,
Since nine-tenths of her are below the seas;—
A mode of gaining shelter from the shot,
Which naval warfare deals out by the lot.
Such was the Monitor, as from New York sent
To give us information: kindly meant
To apprise us, and our attention draw
Towards their use, in any future war:—
That this same visitor of SIXTY SIX
Might some day show us her ill-natured tricks!

Why are Monitors meant to spread dismay?
Why are they thus paraded in this way?
There's something ominous in their name, that means
Advice:—and so to friendly warning leans.
On iron-clads, we think we can depend;
Can they from Monitors themselves defend?
The guns of Monitors, be it understood,
Will iron penetrate, as well as wood;—
No plated ship, however thick she be,
From guns of Monitor can e'er be free.
Look at the subject which way we may,—
The ships with heaviest guns will gain the day:
And heaviest guns will ever still be found
On Monitors used, all the world around:
And who so bold to say, How can it be
That we can't send a Monitor to sea?
While, with quick enterprizing spirit born,
Our own descendants send one round Cape Horn:
Another cross'd th' Atlantic, that we might see
And learn, that Monitors can go to sea

* The Latin scholar will remember this line in the Eton Grammar, where it is quoted in Prosody as an example of elision. Translated, it reads: "A horrible, mis-shapen, vast monster, deprived of sight." Not so inapplicable the comparison, considering her qualifications, to *this* monitor.

Like other ships :—a subject understood
 By Cousin John :—of iron or of wood.
 Say what we may to Cousin John we look
 To follow out a leaf from our own book :
 His Southern war has taught him to improve
 This powerful arm, with which we cannot move !
 Now long ago proposed by Captain Coles,—
 As yet unknown upon our naval rolls !
 Why then this formidable craft decry ?
 And why ourselves the Monitor deny ?
 Naval improvements are to England dear ;
 Who once upon a time had nought to fear
 From war on ocean, and who clear'd the seas
 Of hostile fleets,—then rested at her ease.
 Of ease, indeed, let England now beware ;
Cura quietem should keep her from snare !
 It augurs badly for our country's weal,
 England is slow of novelties to feel
 Th' importance due ;—they're coolly set aside,
 Until she finds they form another's pride.
 Thus of that Monitor : thy virtues more
 Were prized on enterprising Yankee shore,—
 Virtues, which England only could ignore !
 Befitting name ; for monitor thou art,
 Hereafter destined for important part ;
 When nations wrangle o'er some trifling stain,
 And War's red flag on ocean waves again !

Slow to appreciate, does the Muse complain ?
 Is England slow, experience to gain ?
 Nay ; let the little *Waterwitch* appear,
 For with her turbine wheel she'll make it clear
 That England can inventions carry out,
 When she does really see what she's about.
 That *Waterwitch* is a complete success ;
 For which she has the *Nautilus** to bless :
 And fairly makes good thirteen knots an hour,
 With engines only of some small horse-power.
 This hydraulic craft (as she's rightly named)
 Displays the principle by Ruthven claim'd :
 One which, thus establish'd, will yet be known
 In some other waters besides our own.

* The first appearance of the *Nautilus* on the river Thames was in April 1866. The *Waterwitch* is the result of the copy of her mode of propulsion by the Government ; the *Waterwitch* being a small gunboat of a little over 200 tons, while the *Nautilus*, smaller, was, like her namesake, a mere shell of a vessel, built to attract attention to this valuable principle.

More there may be still; yet not for Muse to note,
As not included in this year to quote.

Another feat the Muse has yet to sing—
Her humble meed of praise she has to bring—
In admiration of that enterprize
Which led our Yankee cousins to despise
And set at nought the comforts of a cruise
On summer seas, or winter, nor refuse
An ocean voyage race to undertake
Across th' Atlantic, merely for the sake
Of some small stake; but more perhaps to show
That Yankee yachts care not; blow high or low,
In summer or in winter, to sea they'll go!

Yachting, of course, must be for pleasure meant,
And is well worthy of encouragement:
'Tis manly, daring, healthy, and sublime,
But mostly follow'd in the summer time.
A Briton's pastime essentially it is,
Extensive seaboard happily is his;
And thus, with salt water nearly at his door,
To sea he rushes, like a bird to soar
And revel in its healthy atmosphere,
Without a trouble and without a fear:
The British yachtsman can achieve all this,
Find health and pleasure there, and nought amiss;
And yet our Yankee cousins can do more,
They'll sail their yachts in winter by the score.

"Quick, trim her sails, let the sheets feel the wind,
"And I'll warrant she'll soon leave the seabird behind:

* * * *

"What to her is the dash of the storm-ridden main?
"She has braved it before, she will brave it again!"
Was this the spirit of that match to Cowes
From Sandy Hook? our summer yachts to rouse
From winter moorings and their winter sleep,
That seldom venture on the ocean deep.
How kind of these Americans to show
Our yachtsmen here, the way their yachts can go
Through summer storms, or winter's blinding snow!
Have they not shown them how to set a sail?—
And now they dare the winter's trying gale:
All this to tell us what their craft can do,
And hinting quietly "Can't you come too?"
"With lightnings above us, and darkness below,
"Thro' the wild waste of waters right onward we go."

While sounds of voices, wafted o'er the wave,
In jovial friendship give the English stave,
"Ye gentlemen of England, who live at home at ease,
"How little do ye *know* of the *pleasures* of the seas!"

"The" pleasures "of the seas," replies John Bull,
Indeed? They will require a good strong pull
To get our yachts upon a winter race,
On any stormy ocean to embrace
A sporting offer; for the wat'ry treats
Neptune provides along with dripping sheets,
For those who do not understand his feats:
They'll do for boys, or those who do not know
The ills before them, when to sea they go:
To us, friend Jonathan, you know the gout
Requires us to mind what we're about:
Smooth water, and a flat sail if you please,
We'll have; but we must do things at our ease.
What pleasure can there be to get half drown'd,
Unless one means to sail the world around?

'Twas blowing half a gale on Christmas Day,
And Cowes engaged in Christmas pastime lay,
When swift (with press of sail) a yacht there flew
Into her roads, determined to outdo
All other craft; and much to the surprise
Of those she pass'd, who all, with wond'ring eyes,
Said, that her rapid speed was like the flight
Of some poor tired bird, glad to alight,
After a long and trying effort made
To reach the land (fatigued) from foreign glade;
American her flag, and soon she proved to be
One of a race that was made up of three!
Snug craft she was,—*Henrietta* was her name,—
And with two others from New York she came:
She'd made her passage under fourteen days,
And was admired with no end of praise:
Ere next day her competitors arrived,
But of the prize, she thus had them deprived.
Another novelty is this to mix
Among the novelties of SIXTY SIX.

While thus, on Nauticals, the Muse dilates,
A grave event takes place, that yet awaits
The course of justice. Hard 'tis to believe
That men there are so base as to deceive
Their fellow-men; and under business' cloak,
In spite of certain perils of the sea, t' invoke

The cause of fraud! e'en to risk life itself,
 Besides discovery, for the sake of pelf!
 Yet so it is:—idleness at the root
 Of all evil is; and more than this, to suit
 Their avarice, with idleness combined,
 Would turn the empty heads of all mankind,
 Unable to resist Satanic power,
 And led by fatal influence of the hour!

A ship from England sail'd, the *Severn** named;
 "Potted" she was to be, and no one blamed:
 Clear'd out for China when to sea she went,
 Yet to reach China she was never meant!
 A "potted" ship! the reader will exclaim;
 What means this term? he asks, and whence it came?
 Some one, indeed, has said, "What's in a name?"
 "The rose without it would have scent the same."
 The uninitiated have yet to learn
 It means to *sink the ship*, at some fair turn
 During the voyage; or to *scuttle* her,
 In nautic terms; in fact, a settler!
 Briefly "*ship murder*," shore-folks' term to quote.
 Ships pierced with holes are seldom meant to float;
 And yet the crew may save themselves by boat,—
 Provided that be done in weather calm,
 So fine indeed to threaten no more harm,
 Or to create more reason for alarm.
 Although 'tis done so many miles from land,
 The risk is great they'll ever reach the strand;
 For this there's little care, some ship at hand
 Will pick them up, and settle all demand.
 Far greater risk, besides, there yet remains.
 The plot complete, if known at once explains
 Why in fair weather thus a ship should sink,
 And people puzzled know not what to think:
 So quietly pay all insurance bills,
 And set them down to ocean risks and ills!
 Thus was the *Severn* served, a course of late
 Of other ships supposed t' have been the fate;
 All which, with too good reason, it is fear'd,
 So unaccountably have disappear'd!

'Tis wonderful that any men can brave
 The certain risk, and many dangers grave,
 Of death by drowning, or found out, one sees,
 That must beset them all in plots like these!

* She sailed from the Welch coast in June 1866.

Poor human nature, how 'tis led astray
 Money to gain, no matter what the way.
 In such transactions he has to deceive
 The Underwriters, and make them believe
 That goods insured are on their way abroad,
 And bribe confederate parties to the fraud !

* * * *

Justice has reach'd the culprits here concern'd ;
 The chief of all, his evidence has turn'd
 Against the arch-originator's care !
 Relenting, he disclosed the whole affair.
 This was not the first ship he had sent down
 To depths below ! Another, named *Jane Brown*,
 Was served the same ; and many *more besides*,
 Unknown, unheeded, buried, 'midst the tides
 And currents lost, of ocean far and wide,
By others in command ; content to hide
 Their evil deeds with that impervious veil,
 The ocean, grave of many a gallant sail !
 That sea, where ships thus lost now lie conceal'd,
 But which, hereafter, are to be reveal'd !
 What revelations must the ocean make,—
 What evil deeds disclose for Mammon's sake !
 Sad, dreadful tales will one day all be told,
 How wrongs were done ; and how for sake of gold,
 That many ships with all on board for gain,
 Wasted their treasures in the desert main !
 The life of man himself is not too dear
 To sacrifice for man in mad career !
 Why should the Muse dilate on this sad scene
 Of human frailty ? rather let her screen
 The miserable doings of a few,
 Who quit the path of virtue to pursue
 The phantom Wealth ; and thus draw down disgrace
 On that profession where they're out of place !
 The outraged law its penalty demands,
 For sins committed against its commands :
 That penalty to pay must yet remain,
 And with it too of character the stain.

Sad SIXTY SIX ! and couldst thou not retire
 Unless our Crystal Palace* were on fire ?
 That pile of brilliants gleaming from afar,
 As some colossal diamond's glittering star ;

* The fire took place on the last Sunday of the year,
 December 30th ; and is believed to have arisen from over-
 feeding with fuel, as well as some inattention to it.

That beauteous temple of specimens in art
And Nature's gifts, where sculpture bears its part :
That exhalation of rivalry at will,
Containing proofs of every nation's skill ;
Specimens of toil from every land,
Commencing with Prince Albert's guiding hand ;
That reproduction of the fairest gems,
The ornaments of crowns and diadems ;
Gems of each land, and Nature's gems besides,
With taste arranged, that stately Hall provides ;
That wondrous tale of every country's best
Work of mankind, both from East and West ;
That noble structure which the era marks
Of friendly strife in edifying works ;
That sweet retreat for quiet-loving age,
No less than sports in which the young engage ;
Where gardens beautiful, with ample ground,—
Where English landscape and the French abound,—
Where pleasing gardens of Italian grace,
All tend t' enrich and beautify the place ;
And fountains, second only to Versailles,
Delight the eye, which on their beauty dwells ;
All make a paradise of " Home, sweet home,"
Where Art and Pleasure hand in hand may roam ;
Where fêtes and festivals have each their sway,
And Union celebrates its natal day ;
For ceremonial services all round,
Fit celebration no where else is found ;
For drama easy, and for concerts famed,
All accommodated, and pleasure gain'd !
Such the attractions for the old and young,
Rich and poor, cultivated and unsung ;
For all the world, of every degree,
Our Crystal Palace has its sympathy !
And were all these endearments to be lost,
These popular amusements to be cross'd
And blotted out ? Of recreation sweet,—
Of tired London's gladdening retreat,—
This great attraction ! where from smoky air
All the world rushes, and enjoys " its Fair !"
This lost ? Impossible ! forbid the thought,
Such sweet enjoyments are too dearly bought
Thus to be lost, or thus to nothing brought !
And happily that fire was set at nought :
Yet not before much mischief had been done
In tropic beauties, where that fire begun ;
In models too, those exquisite designs
Of engineering skill, and mimic lines

Of England's shipping, modern and remote,
 Were lost indeed, the Muse laments to quote;
 Never to be replaced,—never more supplied:
 Of Egypt, Assyrian, and the Alhambra's pride
 Sad work was made by fire's consuming stride.
 Further it would have gone, but interposed
 A cotton screen, its further progress closed!
 Enough was done, and Sunday work was braved,
 The fire stepp'd, the Crystal Palace saved.

Some reconstruction has been since begun,
 But long 'twill be ere all this work is done:
 Such noble deeds for universal cheer
 Would have been lost by this disastrous year!
 Those Crystal Halls are destined yet to see
 Ages to come of fair prosperity!
 Success be theirs; good management secures
 Freedom from evils, which experience cures.

And thus the evil deeds of SIXTY SIX
 The Muse has traced; but now with them would mix
 One gracious deed! A multitude of sins
 This will conceal; for it is one that wins
 The praise and admiration of the world.
 Th' Atlantic Cable's glorious flag's unfurl'd!
 That marvellous metallic cord was tried
 Long, long ago; as frequently denied
 Success to efforts, oft as they were made,
 To see it in the depths of th' Atlantic laid:
 Repeated failures had experience taught
 In this most arduous work, that nobly fought
 With all the troubles incident to great depth
 Of sea and currents strong, that intercept
 A vessel's course. At length they're overcome;
 The cable* safely laid, reclines as some
 Huge, lengthy reptile of the serpent race,
 Sleeping securely in its oozy place
 On ocean's bed; on which that ocean rolls
 At liberty between the frigid poles;
 Anon betraying novel proofs of ire,
 Spitting out sparks of bright electric fire!
 Great, wondrous fact, and yet more marvellous still
 Are those phenomena which Nature's laws fulfil.

* This cable was completely laid across the Atlantic Ocean,
 from Valentia to Heart's Content Cove in Newfoundland,
 between the 14th and 26th of July, 1866.

The failure of the old, preceding year,
 Had left a cable* halfway from Cape Clear :
 Its place was known, as there it lay aground,
 By observation, now as easy found.
 To finish this with a new end remain'd,—
 And then a second cable would be gain'd !
 Enough ! To Moriarty was assign'd
 The task of this old cable's end to find :
 And well 'twas done ; with observation clear
 He pick'd it up, well knowing how to steer.
 Thus a new cable was no sooner laid,
 Than one its equal by its side was made.
 Another glorious feat thus here was seal'd,—
 Two lines, instead of one, now lay reveal'd ;—
 To share the work hereafter to be done
 Between Great Britain and her elder son !

And, ere the Muse proceeds, she fain would note
 Distinguish'd names ; of efforts she would quote
 Results, of which we surely may be proud,
 Acknowledged o'er the world with praises loud :
 Nor should the ship herself without her share
 Be left, for well that cable did she bear :
 Well the *Great Eastern* for her work was framed ;—
 Her captain, Anderson, well his part sustain'd ;—
 In navigation, Moriarty was adept ;—
 Canning, with Clifford, electric work well kept ;—
 Another yet, the name of Cyrus Field,
 Will the true pattern of exertion yield :—
 All were resolved t' achieve the end desired,†
 Thus the *Great Eastern* was herself inspired !

Some one foretold of steam's extraordinary pow'r,
 And treated of the lightning's speed per hour :
 Now both are proved, the last some facts display,—
 The Muse delights to treat of in her lay.
 'Twixt Newfoundland and Ireland, measured clear,
 Some fifteen hundred miles of space appear :

* Broken on the 2nd of August, 1865. Picked up, and completed with a new piece to Heart's Content, between the 2nd and 7th of September, 1866.

† The following gentlemen received the honour of knighthood, on account of their zealous promotion of the great enterprise which resulted in the successful deposit of the Atlantic Cable :— Sir Daniel Gooch, M.P. ; Sir Curtis Mirander Lampson, Bart. ; Sir William Thompson, LL.D., F.R.S. ; Sir Richard Atwood Glass,—the above gentlemen being directors of the company ; Sir C. Canning ; Sir J. Anderson ; Staff-Commander, R.N., H. A. Moriarty, C.B.

The electric fluid through this distance flies
 In one-third of a second, to surprise
 Us mortals, who by this can clearly read
 Th' astounding fact of lightning's wondrous speed !*

Here let the Muse relate a modest tale
 About a tiny craft from Yankee dale ;
 Her size, not more than ordinary boat,
 A Lilliputian ship, with name to quote,—
 “*Red, White, and Blue*,” from New York dared to cross
 The broad Atlantic, and to risk the loss
 Of all on board ; her captain and his crew,
 Himself, his mate, and faithful doggee too ;
 No very large ship's company, 'tis true.
 “Above the bounding billows swift they flew,”
 Safely they made the voyage here direct
 In forty days, and oft were nearly wreck'd.
 Their navigation reach'd our Crystal Hall,
 Where she remain'd th' astonishment of all ;
 Who looking, wonder'd o'er and o'er again,
 How that small barque could cross the stormy main.
 The daring feat was done ; her chart display'd
 The tedious track this little ship had made ;
 Her captain, Hudson, reputation gain'd ;
 His ship triumphant in the Hall remain'd !†

Momentous year may SIXTY SIX be styled,
 With serious failings it may be reviled ;
 And heavy failures too will claim their day
 'Midst those of SIXTY SIX, now pass'd away.
 Great its vicissitudes, yet greater still
 That mystic spell which time and space doth kill ;—
 When words can fly with lightning's rapid speed
 Thro' space, in which there's nought that can impede ;

* In reference to this subject, the following is an extract from the *Athenæum* of February 23rd :—

“In the course of making the physical researches necessary for ascertaining, by the passage of electricity through the Atlantic cable, the difference of longitude between America and England, it has been found that the time required for a signal to pass through the Atlantic cable is thirty-one hundredths (0·31) of a second. This is equal to a velocity of 6020 miles a second ; considerably less than the speed of the electric fluid through land lines.

† On the 16th of August she anchored in Margate Harbour, 38 days from New York ; and in September was at the Crystal Palace as a curiosity. She has just sailed for Havre, and we understand is to appear at the Paris Exhibition. Her length is 28 feet.

When nation can with nation thus discourse,
 America and England have recourse,
 Each to her passing politic events,
 And thus communicate in every sense;—
 Then indeed has blessing been bestow'd
 On nations which can thus improve the road
 Which to true civilization leads,
 To noble works, and to illustrious deeds!
 England with her children has thus been tied,
 Long may that happy union abide:
 Such the transcendent gift of SIXTY SIX,
 Not without evils still to intermix.

Evils indeed! Vicissitudes of Banks,
 Large companies, and firms, have thinn'd their ranks,
 Where busy speculation stalks about,
 Serene, self satisfied, yet full of doubt,—
 How schemes may take, or measures prove correct,
 And sink or swim with speculating sect!

How shall the Muse descant on filthy gold?
 How enter on account of "bought" and "sold?"
 On those particulars, which character involve,
 Transactions dark, which capital resolve
 In air! What once was tangible and sound,
 Financial crisis dashes to the ground!
 The merchants' failures all involve a crowd
 Of helpless mortals, who thus prostrate, bowed
 Down to the earth, are crush'd and left of late,
 With ruin'd fortunes to repine at fate!
 Alas, whole families have been thus serv'd;
 The springs of trade itself have been unnerv'd:
 Incalculable loss has been sustain'd,
 And credit, too, that ne'er will be regain'd;—
 Riches on riches to the winds are thrown,
 Some public made, but many more unknown.
 Such was the crisis of the month of May,—
 Preceded by bad omens in their way;
 When companies of rich, high sounding name,
 Their *prestige* lost, and now to ruin came!

Who can forget, that witness'd the dismay
 Of crowds of faces on that dismal day,
 Which stands recorded as th' eleventh of May?
 When families bereft of all they had,
 To beg were left in consternation sad:
 Their chiefs to do the toil of life again,
 If toil they could when life was on the wane,
 And for more business they might look in vain;

For commerce paralyzed, 'twas then too late,
Their day was gone, and they must yield to fate.
Nor did the Bank of England too escape
The pressure of those days in fiscal shape:
When happily the Government stood by,
And thus was hush'd that loud commercial cry.*
Many a scene of sorrow pass'd unknown,
Where affluence was gone, abundance flown,
Nought but abiding love was left alone!
And these were all thy works, dull SIXTY SIX;
Yet one redeeming act thy claim will fix
In mem'ry's grateful tablet of the mind,
That thou didst come but to distract mankind.

Why should the Muse to thee impute the sad
Transactions dark, that in thy course have had
Their birth? Has it not been most truly said,—
“Of every evil since the world began,
“The real source is not in God, but man!”
Go then, sad year, to predecessors go,
The Muse confirms what all the world must know,
While she records repeated tale of woe;
'Tis not of God, but man will have it so.

ARRIVAL OF THE MISSING WHALESHIP “DIANA,” AND DREADFUL SUFFERINGS OF THE CREW.

We find the following narrative in the *Scotsman* of the 11th April, detailing sufferings of no ordinary kind.

A correspondent in Lerwick favours us with the following account of the arrival at Shetland of the whaleship *Diana*, of Hull, which got frozen up in the ice at Davis' Straits last season, and respecting the safety of which grave fears were entertained:—

“Another dismal chapter in the annals of arctic voyages has been completed by the return of this ill-fated vessel. Last May she sailed from Lerwick with a crew of fifty men all told, of whom about thirty were Shetlanders and the rest English, and was last heard of beset in the ice in the month of September. On the 2nd instant, she sailed into Rona's Voe, in Shetland, with all her fifty men on board,—living, dying, and dead. No one was missing. Her captain, with nine of his men dead by his side, lay on the bridge. Five men were fit for duty, two were able to crawl aloft, and the remainder were lying below sick or dying. As the ship came into the port, another man died.

* This took place about the 16th of August, 1866.

"The sight which met the eyes of the people from the shore who first boarded her cannot well be told in prose. Dante might have related it in the *Inferno*. Coleridge's Ancient Mariner might have sailed in such a ghastly ship,—battered and ice-crushed, sails and cordage blown away, boats and spars cut up for fuel in the awful arctic winter, the main deck a charnel-house not to be described. The miserable scurvy-stricken, dysentery-worn men who looked over her bulwarks were a spectacle, once seen, not to be forgotten. As the tidings of the ship's arrival went through Shetland, the relatives of her crew journeyed to her to meet their living and to claim their dead; and by instalments, as they were fit to be removed, the survivors were brought to Lerwick or to their homes in the island. Some, not able to be transported, are still in the ship; but the bulk of the survivors have left her. Most pitiable sights of all were the ship's boys, with their young faces wearing a strange aged look not easily to be described. We are enabled to give a narrative by one of the men in his own words, which in its simplicity and absence of all *ad misericordiam* statements is the more affecting. But we would not be justified in not publishing the name of the brave surgeon of the ship, who, by his unceasing exertions and admirable example, did so much to save those of his shipmates who have returned. 'He was one of a thousand,' said one of them; 'we would have perished without him.' His name is Charles Edward Smith, of London, once a student in Edinburgh University, and he deserves all the honour a brave man can be paid."

Narrative of one of the Crew.

We left Lerwick on the 9th of May 1866, with a crew all told of fifty men, of whom about thirty were Shetlandmen and the rest English. We crossed Melville Bay in June, got two whales in Lancaster Sound, and were in Pond's Bay (the chief fishing-ground) in July, but continued easterly winds prevented the fishing. Towards the end of August and in the beginning of September were beset in the ice, but got clear again, and ran to the southwards with every prospect of getting away, seeing nothing but open water for fifty or sixty miles around from the masthead, when one morning, at daybreak, we found the ship close on to solid ice stretching all to the southward, and almost instantly it closed around, and the ship was fast beset. We were then to the South of Coutt's Inlet. The captain mustered us all aft and spoke to us, and we all agreed to go on half-allowance from that time. This was on Sunday, the 23rd of September, and next morning we began on that allowance,—namely, 3 lbs. bread, and 3½ lbs. meat, with one flour day, per week. I used to put myself on a smaller daily allowance in the first of each week, so that, in the end of it, I should have a little more to enable me to start better next week. Like, on Monday morning, when each man got his week's allowance served out to him, I would break a biscuit in four pieces, and tie each quarter up in a corner of my handkerchief, and take one piece at each of the four meal times; thus I had a little over about Thursday or Friday, and could then have more. Many others did the same, but some wouldn't husband theirs,

and would eat as long as it lasted,—so that on Saturday and Sunday they had none.

The *Queen*, of Peterhead, the *Intrepid*, of Dundee, and a steam whaler—too far away to be known—were the last ships we saw. The *Queen* was pretty near us, and so was the *Intrepid*, when we were beset; but the former got into a lane of water, and worked away down to the southward; and the *Intrepid*, having more steam-power than we, shoved through the ice, and in six hours we lost sight of her. Then we were left alone. All October and November the ship kept drifting in the ice to the South, at the rate of sometimes 17 miles a day at the fastest, and about 10 miles of daily average. Strong northerly winds pressed the ice to the southward most of the time. When off Exeter Sound Settlement, in October, we made a signal by burning oakum, pitch, and oil, slung to the main yardarm; but it was heavy weather at the time, and blowing hard, so it didn't flare up well, and we got no response.

On the 23rd December we were in Frobisher's Straits; and drifting between two islands, we got some heavy ice-nips, and the ship sprang a leak, so that we had to put on all hands to the pumps to keep her afloat; but being doubtful whether she could stand it any longer, thought it best to leave her and rig a tent on the ice,—which we did, and got all our clothing, bedding, and provisions out of the ship. In one way the tent was better than the ship; because, owing to the pressure of the ice on the ship, she constantly cracked and creaked with such a dreadful noise that you couldn't get a wink of sleep when you did turn in; but then the tent was so fearfully cold, as you had only one thickness of canvas to shelter you, that men couldn't stand it. Capt. Gravill was the first night in the tent, but suffered so much from the cold that he went back to the ship in the morning; but several Shetlandmen were two or three days and nights in the tent. The captain died on the 26th December at ten minutes past seven in the morning, and we dressed the body and wrapped it up in canvas, and laid him close to the port side of the bridge, so that if the ship was crushed in the ice we might easily drop him into a hole alongside. We made a coffin too for him, and had it ready in case we should get clear.

The want of fuel came now to be as hard on us as the scarcity of food. We had spent all our coal and a great quantity of spare wood in trying to steam out when we had a chance in the fall of the year, and now we burnt all spare spars, warps, and all our whaleboats but one. We allowed one oil cask every two days for the cooking, and we put that fire out for the day at dinner-time. Our beef got done in January; coffee and sugar about that time also; and our last tea was served out in the beginning of February. Tobacco was likewise all gone, and some of us tried to smoke tea-leaves and coffee-grounds. The tea-leaves burnt the mouth badly, but the coffee-grounds were not so disagreeable. I do assure you it was precious cold, specially at night, when your breath froze in the top of your berth, till the ice

came to be three or four inches thick, and we had a day every week to break it off and scrape it down with the ship's scrapers.

The men began to get downhearted, and some of them were so weak that they dropped at the pumps. The doctor did everything he could for them, and was all a man should be—taking his watch regularly and working as hard as any one; but he couldn't save them. Scurvy began with them, and then they couldn't eat what little food they had, owing to their gums being so bad; and many of them had dysentery. The first two who died—Forbes Smith and Mitchell Abernethy—we made coffins for, and laid up beside the captain on the bridge; but we hadn't wood for any more. The men were very quiet and resigned, though of course there was a difference among them, and some were more contented than others.

At last, on the 17th March, with clear moonlight, we drove out between Resolution Islands into the broken ice. There was a great deal of "young" ice broken by the heavy ice, which protected the ship very much, although she struck heavily at times, and damaged her rudder. William Lofley, one of the harpooners, acted as navigator. When we got into the open sea, and the ship began rolling and pitching, the leak got worse, and we had enough to do to keep her afloat, as there were not many able to work.

On Sunday, 31st March, we exchanged longitudes with a ship, and that very afternoon we sighted land, just two weeks from our leaving the ice. But, unluckily, we took the land we saw to be Orkney, and, wanting to go to Shetland, we stood away to the northward, along the West side of Shetland, all the time supposing it to be Orkney. We beat about there till Tuesday morning, when the mate said he would take the first harbour he could find, and we ran her into Rona's Voe that day at noon, finding to our surprise that we had been off Shetland all the time. Had we been out another night, none of us would have stood it. The night before, three of my watch dropped down at the pumps, and only four of us were able for duty, and they not much to speak of.

On Sunday night, when we were carrying on her with double-reefed topsails, the jib halyards gave way; and out of both watches, three were all who could go out to stow it, and they weren't fit, and it blew to ribbons. Only another man and I could go aloft to stow the main-topgallant sail when we brought up, and we were just able to crawl; and when we came down we were done up. We came into that port with nine corpses lying on the bridge, and after we had anchored, one of the sick hands called out from his berth—"Take away this dead man from me;" and then we found that he had been dead for some time; so that was the tenth, and we laid him on the bridge too. The people in the neighbourhood were uncommonly kind: I never met with so much attention in all my life. They would have done anything for us, and sent on board men to help us, and supplied us with all kinds of provisions. When I left the ship to come to Lerwick with the news of our arrival, a gentleman close by gave me his own topcoat to travel

in, and I found the good of it too. After I left the ship, another man died, and there are two or three more who won't live, I doubt; but the boys, although they are pretty bad, will get over it. I feel myself a deal better than I did when I landed.

Another correspondent sends an account of the arrival of the *Diana* and the sufferings of the crew; but the foregoing statement embodies all the details which he communicates, except the following:—

“On sighting the land, it was resolved to run the ship ashore in the came off to them from the shore. The man at the wheel was so excited first convenient place they came to. On entering Rona's Voe a boat when he saw the boat that he fainted. With the aid of the men from the shore the ship was brought to an anchor, and a messenger dispatched to the agent, who sent a vessel with coal, &c., and twelve men to bring the ship to Lerwick. About twenty of the crew are in a fearful state with scurvy, some not expected to live, and the rest quite unfit for work. Every possible attention has been paid to the men since their arrival. The ship sprung a leak in December, and has only been kept afloat by incessantly working the pumps. The surgeon, Mr. Charles E. Smith, deserves great credit for his exertions, not only in his own profession, but also in assisting to work the ship. Had it not been for his attention to the men, it is doubtful whether any of them would have survived. The captain called the crew together shortly before his death, and told them how he felt under the responsibility of having the charge of fifty-three souls, reminded them of what he had done for their rescue, and then prayed with them. The occasion was felt by all to be a very solemn one. Capt. Gravill was a very pious man.”

ROYAL NATIONAL LIFEBOAT INSTITUTION.

On Thursday, the 4th of April, this institution made the following distribution of funds with which they are entrusted for the object of saving the lives of seamen from wreck on our shores.

A reward of £13 10s. was voted to the crew of the institution's lifeboat stationed at Theddlethorpe, on the coast of Lincoln, for saving, after repeated attempts, the crew of sixteen men, a pilot, and a passenger from the barque *Centurion*, which during a heavy gale had stranded and become a total wreck on the Rose Sand, off Saltfleet, on the 18th of March.

£11 10s. was also voted to pay the expenses of the society's lifeboat stationed at Donna Nook, on the coast of Lincoln, in going off on the 10th of March in a gale of wind and very heavy sea, and rescuing

the crew of four men from the small boat of the schooner *Squire*, of Yarmouth, which had become a total wreck off Donna Nook.

£7 5s. was also voted to pay the expenses of the institution's lifeboat at Fowey, Cornwall, for putting off on the 17th of March, in reply to signals of distress during a heavy gale of wind, and bringing safely ashore the crew of five men of the schooner *Devonia*, of Padstow, which had anchored in Polkerris Bay. The vessel, fortunately, rode out the gale, and the men were again put on board the following day.

£13 was also voted to the crew of the institution's lifeboat at St. Ives, Cornwall, for saving the crew of five men from the schooner *Mary Lewis*, of Aberystwith, which had stranded and sunk off St. Ives Pier during a heavy gale of wind on the 17th of March. The Caistor lifeboat of the society was also the means of assisting to a place of safety the Prussian schooner *Louise* and her crew of seven men, which vessel was in a dangerous position in the Wold, off Winterton, on the 7th of March.

£7 5s. was likewise granted to pay the expenses of the institution's lifeboat at Selsey, in putting off during a gale of wind and bringing safely ashore the crew of the brigantine *Sarah Ann*, of Jersey, which had become a total wreck off Selsey on the 18th of March. The Holyhead lifeboat of the society was also the means of bringing ashore fourteen men from the stranded schooner *Nicolo*, near Holyhead, on the 30th of March.

£6 was also voted to the crew of the society's lifeboat at Drogheda, for saving three men from the schooner *Mary*, of Dublin, which during a fresh gale had driven on shore on the North Wall, Drogheda Bar, on the 23rd of March.

£18 13s. 6d. was also voted to pay the expenses of the society's lifeboat at Tramore, in rescuing the crew of ten men of the barque *Wild Horse*, of Windsor, N.S., which had stranded during a gale of wind on Tramore Beach on the 23rd of March.

£13 3s. was also granted to pay the expenses of the institution's lifeboat at Tyrella, in rescuing six of the crew of the sloop *William*, of Paimpol, which had stranded during a fresh gale of wind in Dundrum Bay on the 23rd of March.

£9 3s. was also voted to pay the expenses of the society's lifeboat at Wexford, in rescuing, with the assistance of a steam-tug, the barque *Loretto*, of Liverpool, and her crew of fourteen men, from a dangerous position near the Blackwater Bank, during a gale of wind on the 23rd of March.

£15 was also voted to the crew of the Appledore lifeboat, for going out in a gale of wind and heavy sea, and rescuing the crew of three men from the rigging of the brig *Harmony*, of Bideford, which had gone on the South Tail, Bideford Bar, on the 29th of March.

£21 was also voted to pay the expenses of the institution's lifeboat at Palling, in saving the whole of the crew, six in number, from the French schooner *La Prudence*, which, during a fresh wind and heavy sea, was wrecked off Palling on the night of the 30th of March.

Rewards amounting to £125 were also voted to pay the expenses of the society's lifeboats at Brooke, Poolbeg, Penzance, Plymouth, Howth, Donnanook, Sutton, Selsey, Pembrey, Aberystwith, and Cromer, for various other services to distressed vessels during the month of March.

£5 5s. was also ordered to be presented to seven men for putting off in a whaleboat belonging to the Howth coastguard station, and after repeated attempts saving six men from the schooner *William Henry*, of Barrow, which, during a heavy gale of wind, had stranded on Baldoyle Bank on the 18th of March.

Various other rewards were also granted to the crews of different shoreboats for saving life from shipwreck.

It was reported that his Majesty the King of Denmark had granted 200 rix dollars to the crew of the Ramsgate lifeboat, in addition to what the Board of Trade had previously given them, for the noble services which they rendered to the crew of the Danish barque *Aurora Borealis* on the 6th of January last.

Her Majesty the Queen had sent her annual subscription of £50 to the institution, and the same was gratefully acknowledged.

It was reported that the lifeboat which the institution had sent to the Paris Exhibition had attracted the special attention of the Emperor and Empress of the French.

New lifeboats were about to be sent by the institution to Falmouth, Exmouth, and New Brighton. The cost of the lifeboat for Falmouth had been generously contributed by the city and county of Gloucester.

Messrs. Rothschild had liberally increased their annual subscription to the institution to £10 10s.

An effort was being made by the ladies in Edinburgh to raise a sufficient sum to meet the annual expense of the Edinburgh Working Men's Lifeboat, stationed at Port Logan.

Payments of £2,200 were ordered to be made on various lifeboat establishments.

The plan of the safety fishing-boat of the institution was exciting considerable attention, and two of the boats which had been tested on the coast of Scotland had given great satisfaction.

A report was read from Capt. David Robertson, R.N., the assistant inspector of lifeboats of the institution, on his recent visits to its stations on the coasts of Norfolk and Suffolk.

The thanks of the institution, inscribed on vellum, were ordered to be presented to the Rev. Luke H. Wiseman and Thomas Smith, Esq., for their valuable co-operation, through the medium of the *Methodist Recorder*, in collecting nearly £800 to defray the cost of the *D. J. Draper* lifeboat.

Nautical Notices.

[Communications for the Editor of the *Nautical Magazine* to be addressed to him at 31, Poultry.]

PARTICULARS OF LIGHTS RECENTLY ESTABLISHED.

(Continued from page 222.)

All bearings are magnetic.

Name.	Place.	Position.	F. or R.	Ht. in Feet	Dist seen Mls.	[Remarks, &c. Bearings Magnetic.]
17. St. Hellers, Old North Pier	Jersey	Channel	..	..	..	Est. 1st May, 1867. Discontinued and two Green lights substituted. (a.)
18. Aux Cayes	St. Domingo, S.W. coast	On E. end of I. Vache in 18° 4' 5' N., 78° 34' 5' W	F.	..	12	Est. 19th November, 1866. Light Red.
Jamel Bay	St. Domingo, S. coast	On white cliff in 15° 12' N., 72° 34' W.	F.	..	12	Est. 19th November, 1866. To show position of Bay at night. Light Red.
Port au Prince	Ditto	.....	F.	..	..	In a position close to the islet for the use of Liverpool steamers. (b.)
19. Andaman I. Cocos, Table Island	Bengal Bay	14° 8' 5' N. 93° 18' E.	F.	200	20	Est. 15th February, 1867. (c.)
20. Gaspe Bay, on Peninsula	.....	N.W.b.N. 12 miles from Cape Gaspe	F.	40	..	Only during the navigation season. (d.)
F. Fixed. Fl. Fixed and Flashing. R. Revolving. I. Intermitting. Est. Established.						

(a.) 17.—The two lights will be green lights, one, the outer, placed on the western angle of Albert pier, the other on the Esplanade parapet, and bearing from each other N.E. $\frac{1}{4}$ N. and S.W. $\frac{1}{4}$ S., distant 633 yards.

Directions.—The inner light will not be visible to vessels approaching the harbour from the eastward at low water until it comes on a bearing N.E. $\frac{1}{4}$ N.

The two lights in a line will lead midway between Hinguette and Grune St. Michael, but over a sunken rock which lies at a distance of 2 $\frac{1}{2}$ cables outside the high head of Hinguette, and over which there is only 7 feet water at low water springs; it also leads between the Oyster rocks and the Dogs nest and midway between the Cloches rocks, clear of all danger.

Variation 20° 50' Westerly in 1867.

(b.) 18.—This harbour light at Port au Prince is often more brilliant than, and can be seen before, the light on the point, navigators are cautioned not to mistake the one for the other.

(c.) 19.—*Directions.*—This Cocos light, at the southern limit of the Preparis S. channel, for vessels passing between the Gulf of Martaban and the Madras coast and between Calcutta and the Malacca Straits or China, will form a good point of fresh departure in the S.W. monsoon, while the Alguada reef revolving light, at the N. limit of the Preparis N. channel, is a good point of fresh departure in the N.E. monsoon. By shaping a course to make either of these lights, the dangers about Preparis island are avoided.

All vessels using these Preparis channels, in the S.W. monsoon would en-

deavour to make the Cocos light, and in the N.E. monsoon, the Alguada light, excepting powerful steamers between Calcutta and the ports of Pegu, which would use the latter in both monsoons.

Table and Skipper islands are steep to, with no dangers to seaward; there is a passage between them and the great Coco island, but it is not safe to attempt it without a pilot.

(d.) 20.—The following are bearings from it:—Cape Haldimand, South; Gaspé Basin, W. 1 S.

The light is intended to serve as a guide to vessels passing between Sandy Beach and the main land opposite.

Variation 26° 20' Westerly in 1867.

JAPAN,—*West Coast.*

The following information, dated January 1867, respecting a sunken rock recently discovered inside Wilson island, on the west coast of Kiusiu, has been received from Commander Charles Bullock, H.M.S. *Serpent*.

Serpent Rock, three quarters of a mile from and inside Wilson island, has only from 9 to 12 feet of water on it. From the rock the N.E. point of Wilson island bears N.N.W., the S. point W.S.W., and the N. point of Koko-sima E.N.E. The *Serpent* grazed over it whilst carrying 6 fathoms regular soundings in both chains.

JAPAN,—*South Coast and Inland Sea.*

The following additional information, having reference to the *China Pilot*, 4th Edition, on the South coast of Japan, and the Inland Sea, has been transmitted by Commander Charles Bullock, H.M.S. *Serpent*, October and November 1866.

Gulf of Yedo.—Submarine jets, 20 feet high, apparently of steam, were observed on October 6th, 10 miles N.E. of Cape Diamond near Simoda, about two miles off the land.

Redfield Rocks.—12 fathoms water was found when passing on the west side of these rocks, midway between the groups it is not correct that the water deepens as they are approached. Half a mile from the south and principal cluster there are 30 fathoms, rock. The flat rock is connected with the south rocks, and close to them.

Gulf of Suruga.—*Directions for Harbours* on west coast of Idsu peninsula.—Tago and Heda may be boldly steered for, but Arari is only fit for small craft, difficult of access and its entrance only 60 feet broad. It is close N.E. of Tago harbour, easily identified by two rocky islets off its entrance.

Heda, a safe accessible anchorage, can be recognized by the low stony barrier fronting it, with its line of dark pine trees.

Strong S.W. winds do not always blow home in the Gulf of Suruga.

Lady Inglis Rocks.—In a S.W. gale there is good shelter under the lee of Omae-saki in 7 to 4 fathoms, but not closer in. A vessel may

pass inside the reef, giving the shore a berth of a mile. The reef covers at high water, and does not always break. It should have an iron perch or beacon.

Directions from Yokohama to the Westward.—After passing Rock island, take an in-shore passage, steering for Omae-saki, thence towards Kii-no-oo-sima, taking the greatest care to avoid the dangerous reefs off Sima, if at night. The *Serpent* carried a favourable current the whole way in October.

Inland Sea.

St. Vincent Channel.—There is a safe, easy, and deep channel north of the Conqueror bank, with one sand flat only between Nezumisima and Sayanagi, having as little as 6 fathoms on it at low water.

Directions.—Stand on E.N.E. between Nezumi and Sayanagi, passing nearer to Nezumi, and when between Kosima (Round Island) and Takami steer about E.b.N.½ N. to pass between Ten-feet rock and Hiroshima, borrowing to the southward at first to avoid a steep bank joining Hiroshima and Kosima, but hauling in again so as to pass nearer the island than the rock. Thence steer E.b.N. for the N. part of Usisima (Saddle island), hauling up mid-channel through the passage N. of it, to avoid a rocky ledge off its point, then steer along Siyako for the N. point of Yosima, hauling up E.b.S. with Kodutsi in line with S. point of the island off Yosima, and pass mid-channel between it and the Three Rocks.

A further examination has brought to light the existence of some dangers on the borders of this channel, which may be avoided by slight precaution. [November 1866.]

Three Islet Spit.—A narrow bank of gravel extends from the three rocky islets towards Sikayo. Its spit may be crossed in 10 fathoms by keeping Kodutsi, its own breadth open of the small round island off the S. point of Yosima (not marked in the chart).

Rocks, dry towards low water, extend one cable off the N. point of Usisima; steep to.

Siyako Ledge.—A rocky ledge extends 3 cables off the S. point of Siyako, at the outer part of which is a rock of less than 10 feet water. Giving the island a berth of half a mile, or passing outside the tide rip or heavy overfall generally seen there, will clear it.

Hiro-sima South Bank, steep to, is between Hiro-sima and Kosima, or Round island, projecting somewhat into the channel, therefore pass S. of Ten-feet rock.

Ten-feet Rock, so named, 20 feet high, and whitened, may be passed safely on either side at 2 cables or less.

Directions, from the Eastward.—Pass mid-channel N. of the three rocky islets, and haul up W.b.N. till Kodutsi is its own breadth open of the small round island off the S. point of Yosima, then keep S.W. b.W. along the shore of Siyako, on a mid-channel course between it and Usisima. When Ten-feet rock comes midway between Round island and Takami, steer for it, but pass 2 cables S. of it. Pass 2 cables

N. of Takami, and half a mile N. of Nezumi, the summit of Hiro-sima kept midway between Round island and Takami leading through in 7 fathoms.

Tides.—It is high water, f. & c., at Hiro-sima at 11h. 45m., and springs rise 11 feet, neaps 8 feet. The streams run regularly six hours each way; flood comes from East, and changes take place about an hour before the end of the tide. The tides are very regular.

Kurusima Seto.—*Southern Route*.—Named Kurusima Seto, or Strait of Kurusima. A singularly clear atmosphere and great mirage prevail in this part of the sea, under which circumstances the sun shining on the islands blends them with the mainland, the passage then difficult to make out.

Oki-sima, in long. $134^{\circ} 4'$, is high, and none of the islands about it are low, as stated in the *China Pilot*.

Tomo-sima is also high, with good anchorage in 5 or 6 fathoms on its S.W. side, Yosima bluff being open of its South point.

Shenesi or Ose Bank.—Not less than 6 fathoms could be found on this bank, of coarse sand. The fishermen did not believe in any bank of less than 7 fathoms.

Hasedasinose Bank extends 2 miles off the shore of Awadji, 3 miles N. of Morotzu; it is said with 3 fathoms on its edge.

Shanose or Great Shoal is probably not so extensive as on the chart. The *Serpent* passed over the centre of it, 6 miles within the spit, in 11 fathoms, sand, but the S. edge in 13 to 18 fathoms was found to be rock. A good leading mark for passing between the banks is the Hiogo range just open of Yesaki.

Akasi Strait to Hiogo.—A shoal of 20 feet, is said to be about a mile S. of Mieco on the Nipon shore. The *Serpent* found 10 fathoms, as marked on the chart by a Japanese naval officer, although it appeared very shoal from the extreme discolouration of the water in a heavy tide rip, caused by the ebb stream being deflected from the shore after sweeping out of the Akasi bight. There is probably a shoal nearer the coast, formed by the eddy.

Standing on towards Hiogo there are not less than 9 fathoms at a mile off shore; and Hiogo point, which is low, and has a round grey tower at its extremity, may be rounded at 1 or 2 cables.

Prices have much risen in consequence of the civil war. Good coal was supplied at Hiogo to H.M.S. *Bustard* at 12.50 dollars a ton. Charcoal, which ranged from 5 to 12 dollars a ton in 1861, ranges now from 17 to 37 dollars.

Cape Iyo, a long promontory of undulating hills, rises gradually from the point to a moderate elevation. Half a mile N.W. of it is a grassy island 20 feet high, and 2 cables outside the island a low reef which never covers.

Kosima, well cultivated, contrasts well with the barren hills of Osima behind it; a clump of trees is seen on the western part of its double summit.

The White-topped Rock is half a mile W.b.S. of the S. point of Masima, and the ground southward of it towards the village of Obama is rocky and uneven as far as a rock, awash at low water, 3 cables from the shore, and 6 cables S.S.W. of Masima. There is troubled water even outside this, which it would be prudent to avoid.

Directions.—When passing Cape Iyo, the western or junk channel will be seen open; proceed E.S.E. and round Kosima (thus opening the strait) at 3 or 4 cables till the course is S.S.W. [?], changing to S. when passing the W. point of Masima at 2 cables; after rounding the S. point of Masima at 3 cables, steer S.E.b.E., and giving the islets off Osima a good berth, haul up E.N.E. easterly, through the Bingo-nada.

There is much troubled water in the strait, especially off Kosima on the flood; a mid-channel course will avoid what appears dangerous.

From the Eastward.—After rounding the islets off Osima, the western or junk channel only will be seen open; steer N.W.b.W. for (or to the right of) the White-topped rock, and haul up N. between it and Masima. After passing the W. point of Masima, keep a mid-channel or N.N.E. course, and round Kosima at half a mile.

Anchorage may be had off Imaharu; also off the S. end of the village of Obama, one mile N. of Imaharu, in 6 to 9 fathoms.

Iyo-nada.—Keep the route recommended; it is the best passage, and no time is saved by passing N. of Nukusima, where the tides are very perplexing, especially to a vessel under canvas.

Kii Channel.

Tanabe, S. of the Daimio's residence, is sometimes a convenient anchorage; but better shelter in westerly winds would be found N.E. of the Binzli reef. Two sunken rocks have lately been discovered in the fairway to the above anchorage: one of 22 feet water is S. $\frac{1}{2}$ E. $4\frac{1}{2}$ cables from the islet off Maru-yama point; the other with 15 feet is S.S.E. $\frac{3}{4}$ E. at the same distance. To anchor, stand in for the green earthwork E. of the white wall of the Daimio's residence, bearing E.N.E. till Ebisima shuts in with the islet off Maru-yama point; then keep E. and anchor in 6 to 4 fathoms. The low rock of Binzli always shows.

Simonoseki Strait.

Tano Bank.—A better leading mark for passing between the Tano bank and the Kanabuse rock is—a large clump of trees on Takasaki, the S. point of Simonoseki town, in line with the high water of Mozi point. The so-called Custom-house is seldom to be recognized.

Variation in 1867, 4° $0'$ W.

TELEGRAPH CABLE BETWEEN JERSEY AND FRANCE.

The telegraph cable between Jersey and France lies in a N.W.b.W. $\frac{1}{2}$ W. and S.E.b.E. $\frac{1}{2}$ E. direction, between Fliquet bay, Jersey, and Pirou, France. The shore end or landing in Jersey is marked by a white martello tower, on which is painted in black letters the word "Telegraph," surmounted by a green disc. On the French coast at Pirou the shore end is distinguished by a white tower 25 feet high elevated above the sand hills, on which is painted in black letters the word "Telegraph," surmounted by a green disc.

To prevent damage to the cable by the anchors, grapnels, oyster dredges, &c., used by fishermen, the following directions are given:—The course of the cable is distinctly indicated by the two towers, which, during the day, are a sufficient guide for clearing it. It can be avoided by means of the bearings given above. Fishing vessels on the coast of Jersey which have no compass can avoid the cable to the South by keeping Coupe point in one with the Tour de Rozel, and to the North by keeping the Guard-house in Bouley bay in one with the Tour de Rozel.

EQUATORIAL CURRENT OF THE INDIAN OCEAN,—*Bottle Paper.*

Batavia, Feb. 15th, 1867.

Sir,—The *Batavian Government Gazette* of the 12th inst. contains the following notice:—

"On the 1st of January last a bottle was picked up on Pulo Simo (Batu Islands) off Westevart, of Sumatra, containing the following memorandum:—Barque *Wynand*, bound to Colombo, 79 days out; light southerly airs last four days; meridian bar., 30°; therm. shade, 86°; lat. 1° 20' S.; long. 76° 0' E.

"WHARTON SMITH, *Master.*

"*July 17th, 1866.*"

To verify or ascertain current, send this to master-attendant of any English port, who will forward to *Nautical Magazine*.

As the above request might perhaps not be complied with, I now forward particulars for your information.

I shall be happy if I can be of service to you here, in return for which you will oblige by sending me copies of your numbers.

I am, sir, yours truly,

J. H. GROOS.

To the Editor of the Nautical Magazine.

We are much indebted to the author of the foregoing letter for his kind consideration in forwarding the copy of the bottle paper, which

confirms the easterly equatorial current of the sea by which it has been swept to the Sumatra coast. Assuming it to have been found as soon as landed, it would then have travelled eight miles per day. But it is more probable that for some days it lay unobserved, and its rate of travelling would then be proportionably greater. It is, at all events, a useful corroboration of an important fact.—ED.

OUR IRON-CLAD FLEET.

Our correspondent deals out in his playful verse some serious warnings on the subject of our iron fleet. The following extract from the *Daily News*, evidently by one who knows his subject, is one by no means flattering to our naval ideas of superiority, and it seems the safest way when an official and a non-official opinion differs on such important subjects as are treated on in the report just published, that a well selected committee is the proper party to decide which is right and which is wrong. The subject is most momentous when our very existence not to say our former naval prestige depends on our not losing the power of preventing the iron-clads of foreign nations from approaching our shores. We commend the following to our readers' attention, and agree with our author when he says:—

“England! unto thy guardians belonga
To meet all this! nor trifle with such wrongs.”

What of the *speed* of our iron-clads, which the American admirals rate so highly. That element seems to be nowhere in our fleet, besides several other qualities.

Two important reports on the performance at sea of our iron-clad fleet have within the last day or two been issued. One of these refers to a cruise made so far back as the year 1864; the other is derived from the observations made during the trials of last autumn. But in many respects these independent results confirm each other, and the points of discrepancy are themselves of value. Admiral Dacres, on the former occasion, had under his orders the *Warrior* and the *Black Prince*, sister vessels of 380 feet in length; the *Hector*, the *Defence*, and the *Resistance*, of 289 feet in length; and the *Research* and the *Enterprise*, smaller vessels, on Mr. Reed's box principle. The admiral considered the larger ships very valuable for either sailing or steaming on long voyages, but subject to the serious drawback of being very unhandy. Their great length also makes them need double the ordinary space in time of battle, to afford them room to turn, for their circles are 1,000, instead of 500, yards diameter; and in narrow channels, or entering harbours, they are exposed to serious dangers.

These first built vessels had also the disadvantage of having their extremities unprotected by armour, and Admiral Dacres expressed considerable apprehension for the consequence of their receiving shot from the stern-chasers of an enemy, however inferior in speed, before they could close with her. On the whole he seems to have approved most of the medium class typified by the *Defence* and *Resistance* as being fairly fast, and greatly more under control. The *Research* he condemned as unsafe; but the *Enterprise* received high commendation.

The cruise of last year was under the command of Admirals Yelverton and Warren, and each officer has furnished a report, which, in their main points, agree. The fleet comprised the *Ocean* and *Caledonia*, converted wooden vessels; the *Achilles* of the *Warrior* class, but with the bow and stern protected at the water-line; the *Hector*; the *Lord Clyde* and the *Bellerophon*, two of Mr. Reed's larger vessels; the *Pallas*, his specimen of a crack smaller one; the *Research*; and the *Wivern*, one of the turret ships built by Mr. Laird for the Confederates and purchased by our Government. Of these, the *Achilles*, taken as a whole, was the finest. She was greatly the fastest under steam, she sailed well, and her stability was in very remarkable contrast to that of her consorts,—her rolling being only to an angle of 16 degrees, when the *Caledonia* went to the extent of 28 degrees, and the *Pallas* of 32 degrees. The *Bellerophon* held the next place in steadiness; and Admiral Yelverton gives a high character to this vessel in many respects, subject, however, to some serious drawbacks. One of the most interesting points in the trials lay in the great improvement noted in the *Hector* and the *Research* as compared with their condition in former years: the former, by lightening her ends, was made into a really good sailer and sea-ship; the latter, by the addition of a hurricane deck, was rendered at least safe and comfortable,—and she kept her place fairly with the fleet. The *Pallas* was almost always the fastest under sail, but she pitched and rolled heavily. Both she and the *Bellerophon*, of which so much was confidently prophesied, proved very moderate indeed under steam, and used a very large proportion of coal for their weights and speed. The converted wooden vessels, *Ocean* and *Caledonia*, were on the whole so fairly good, that Admiral Yelverton strongly recommends the utilizing in that way of more of their class.

The technical differences between each vessel, very carefully tested, and noted in elaborate tables, are matters which we must leave to the examination of professional men. No single vessel was so pre-eminent in all respects as to be capable of adoption as a type for our future navy. The same species of inconveniences which were noted in the previous trials as attaching to each class were confirmed in this. It seems established also that our iron-clads cannot be depended on to tack or wear without the assistance of steam up, and this necessity will confine their cruises to the period during which the supply of coal may last. Again, in the matter of firing their guns it was ascertained that, in anything of a sea, no tolerable practice could be made at all,

the ports rolling under water, the shot and even cartridges dropping out of the guns, and the guns themselves becoming unmanageable. Here both the admirals remark very strongly on the danger the whole fleet would have been exposed to had they been encountered in such circumstances by a single hostile turret ship. Such a vessel, they make no doubt, would have been able to fire with fatal effect, while they would not have dared to open a broadside port. For not only does a turret ship carry her guns higher (besides being able to work far heavier guns), but her weights being more central, and raised higher up, she is steadier both in pitching and rolling. And in this opinion of the relative superiority of a turret ship they were only confirming that which, on slightly different grounds, had already been strongly expressed by Admiral Dacres.

Here, however, there steps in a new authority to overturn all these practical conclusions of our most experienced seamen. Admiral Spencer Robinson, Controller of the Navy, and *alter ego* of Mr. Reed, Chief Constructor of the Navy, sitting in his chair at Whitehall, writes a commentary on all these reports, for the instruction of "My Lords," and the correction of the public mind. These curious appendices are devoted to proving that every favourable point noted by the commanders at sea in regard to a Reed-Robinson vessel is of conclusive authority, while every point on the other side is either founded on mistake or is unworthy of notice. Admiral Robinson observes—"Very high praise has been awarded to the *Achilles*. I am entirely responsible for all the features of that ship which differ from the *Warrior's*." This way of assuming responsibility for merits is an entirely new form of combining modesty with self-commendation. But in direct contradiction to the official reports on the *Bellerophon*, which declare that "she cannot be called a handy ship," that her rudder is greatly exposed, and that she is disappointingly defective in speed, Admiral Robinson declares that she is "by common consent the most formidable iron-clad afloat." Of the *Pallas*, he asserts that she "has fulfilled the expectations of her great speed," in the teeth of Admiral Yelverton's report that on the trial of full speed she only took the third place. But then Admiral Robinson has a convenient way of disposing of this fact by asserting that the full speed trial affords no indication of the relative merits of the ships. Admiral Yelverton had objected that the *Bellerophon* in pitching exposed her balanced rudder to such an extent that he must be a very bad shot who could not hit it. Admiral Robinson calmly settles this difficulty by the remark, that "the exposure of a large surface of this rudder, when the ship is pitching, is perhaps more an apparent than a real evil." As to the idea of plating any more of our useless wooden vessels, Admiral Robinson will not hear of it, which is a little curious when one keeps in mind his vehement support of Lord Palmerston's expensive crotchet that wooden frames for ships are far better than iron.

After all this indication of a peculiarity in judgment, it will surprise no one to learn that Admiral Robinson adheres to his doctrine that, not

only are the turret ships *Scorpion* and *Wivern* unfitted for going to sea, for which, indeed, they were never intended, but that "he cannot agree with Admiral Yelverton, that they are even well adapted for coast defence." And it follows quite naturally that he entirely dissents from the opinion of our practical naval commanders in reference to the superiority of a turret vessel in power of firing in bad weather, and demonstrates quite to his own satisfaction that "these advantages are not altogether so great or so decisive as they might appear at first sight." And he insists that it is only in turret ships "designed by the Admiralty, (and not approved by the inventor,)" that any advantages appear at all. Such is a specimen of the authority by which in naval matters we are ruled, and our best officers are overruled. The cynical critic of human nature would find in it food for laughter, but the tragic issues involved repress the thought of ridicule. The fleet of England, in the opinion of her ablest seamen, is in danger of defeat, because certain prejudiced heads of departments allow their own personal likes and dislikes to distort the evidence of facts, and resort to subterfuges in order to evade compliance with duty.

QUEEN ADELAIDE'S NAVAL FUND.

A meeting of the friends and supporters of this fund took place on the 18th of last month, on the occasion of the retirement of its founder, Mrs. Skyring (the widow of Commander Skyring, R.N.), to confirm the regulations on which it has been conducted, and other business. And here we had the satisfaction of seeing a most valuable institution, the origin of which is set forth in our volume for 1850, doing good charitable service, and contributing its little harvest annually to general produce of the numerous societies to be found in our land. We look on this as a most valuable auxiliary to the larger societies for the benefit of the orphan children of naval and marine officers, and regret to find that it is not so widely known as it should be. In a future number or two we propose to allude to it, and show some of its good deeds; and we trust that the officers of those services whose widows and children are the special objects of its solicitude, will be found more numerous than they are in the list of subscribers. A day's pay or half-pay is but a small modicum of subscription, but even this from all would enlarge the operations of the fund, and soothe the sorrows of many whom it is painful to see refused its assistance.

TEXT OF TREATY BETWEEN JAPAN AND UNITED STATES, GREAT BRITAIN, FRANCE, AND HOLLAND.

The text of the new treaty made between Japan and the representatives of the United States, Great Britain, France and Holland,

has been published at Washington. The treaty went into force on the 1st of July, and as direct communication with Japan will be opened in January, its provisions may be given in brief. As the *Colorado* will touch here in March on her return from China and Japan, goods can be ordered and procured by her:

1. Permits for the landing or shipment of cargoes in Japan will hereafter be issued free of charge.

2. The Japanese government will warehouse imported goods, without payment of duty, at the ports of Kanagawa, Nagasaki, and Hakodadi, and will be responsible for their safe custody so long as they remain. On removal, the importer or owner must pay the duties fixed by the tariff, with storage charges.

3. All articles of Japanese production may be conveyed from any place in Japan to any ports open to foreign trade, free of any tax of transit duty, other than the usual tolls, which are levied equally on all traffic for the maintenance of roads or navigation.

4. All foreign coin or bullion in gold or silver will be exchanged into native coin of the same intrinsic value, deducting only the cost of coinage.

5. The Japanese Governor at each port will make arrangements with the foreign Consuls for the prevention of frauds by labourers, and for the protection of goods in transit.

6. Any Japanese subject is free to purchase at home or abroad, any kind of steam or sailing vessel, to carry passengers or cargo. Ships of war may be obtained under the authorization of the Japanese government. All foreign vessels so purchased shall be registered as Japanese vessels.

7. The former restrictions upon direct foreign trade by Japanese merchants are removed, and all Daimios, or persons in their employ, are free to visit any foreign country. All Japanese subjects may ship goods to or from any port in Japan, or to or from the ports of any foreign power, either in vessels owned by Japanese, or in the vessels of any nation having a treaty with Japan; and by taking passports, may travel abroad for study or trade.

8. The open ports will be provided with lights, buoys, and beacons, at the expense of the Japanese government.

CHARTS AND BOOKS PUBLISHED BY THE HYDROGRAPHIC OFFICE, ADMIRALTY, in April, 1867.—Sold by the Agent, J. D. Potter, 31, Poultry, and 11, King Street, Tower Hill, London.

159.—Italy, West Coast, Sheet 3, Civita Vecchia to Naples Bay, M. Darondeau, F.I.N. 1856, (1s. 6d.)

250.—Africa, North Coast, Fratelli Rocks to Mehediab, with views, Commander Wilkinson, R.N., 1865, (2s. 6d.)

2,082.—Africa, South Coast, Sheet 1, Table Bay to Agulhas Cape, Captain Dayman, R.N., and others, (2s. 6d.)

2,678.—Philippine Islands, Sulu or Mindoro Sea, Eastern part, Spanish Surveys, 1863, (2s. 6d.)

EDWARD DUNSTERVILLE, *Commander, R.N.*

Admiralty, Hydrographic Office, 20th April, 1867.

THE
NAUTICAL MAGAZINE

AND

Naval Chronicle.

JUNE, 1867.

GREENWICH HOSPITAL; WHAT TO DO WITH IT.

DEAN SWIFT'S "Tale of a Tub" might as well be applied to Greenwich Hospital as to the Church, for the moral it was intended to convey. The wrangling and contention which that great satirist described as existing between different parties about Church discipline, and about the real meaning of the words of the Founder of Christianity are, and have been, often reproduced in smaller matters. If the founders of institutions and charities could only now and then start from their graves and see with their own eyes, and hear with their own ears, the interpretation placed upon their own words, it might fairly be concluded that they would be surprised. And in many cases, if founders of charities could by the means of some respectable medium be induced to re-appear to their descendants, they might be edified and abashed to find how much unnecessary trouble they have given. It is rather a hard thing to adhere strictly in every instance now to the terms of an agreement made centuries ago; and even where it is not hard it is sometimes foolish to do so. The very circumstances which called a charity into life years ago may, after the lapse of a generation or two, have ceased to exist; and new circumstances may also have arisen making it very advisable to give it a new direction altogether.

Greenwich Hospital in common with several other very respectable charities is in this condition. It is indeed, a matter of doubt how far it would be right to carry out to the letter in the present, the provisions of some of our great charities. Take a large and a national school like Christ's Hospital, or take any of the great schools of

England, and the question arises as it has already been made, whether in justice or wisdom the original terms of their foundation should be now carried out. An amusing instance of this kind occurred not long since in a small country village not far from one of our seaport towns. A clergyman whose energies were in inverse proportion to the size of his parish, and were as overflowing as his flock was limited, found that a deed upon which some alms-houses were founded about four centuries ago, subjected them to the control of himself and a sister of mercy, and he had serious qualms of conscience as to whether the matron who at the time superintended the establishment ought not to be superseded, and a sister of mercy put in her place. What the result would have been if he had carried his ideas into effect it would be impossible to predict, but this small instance only shews how very difficult it is to reconcile modern actions with ancient ideas. Anthony Trollope's best story, the "Warden," is founded on the difficulties which arose when an ardent young reformer found that there was a serious discrepancy between the actual disposal of the funds of a hospital and the terms of the founder's bequest. It becomes indeed a matter for serious consideration, whether anybody should be allowed to leave money at all for the foundation of any institutions, or in any way except that which is purely private. The storm of indignation which followed Mr. Gladstone's attempt to criticise the management of public and private charities shewed how difficult this restriction would be. But Greenwich Hospital, not two centuries old, has given one more notable instance of the difficulty of reconciling old ideas with modern usages.

What however, is to be done with it? Various schemes have been lately suggested, and many very specious claims have been preferred by those who fancy that they have a sort of right to benefit by its funds. Moreover the funds and the property are so large that it is felt it would be hard to let the government appropriate them to its own uses without a strong effort in the contrary direction. But when people carry out beautiful sentiments materially, difficulties are certain, sooner or later to arise. All that can be said is, that it is fortunate that rich and powerful Englishmen are more material than sentimental, and that the country though troubled occasionally, cannot be said to be overburdened, with the maintenance of costly sentiments. Still Queens have a sort of prescriptive right, not only to indulge in sentiment, which is the peculiar privilege of all women, but they have the power and the luxury to carry out their special sentiments. Queen Mary, whose memory all Englishmen respect, had a strong sympathy with sailors, and she lived in a time when the navy had asserted its own honour and the power of the country by the victories it had won. To the battle of La Hogue Greenwich owes its Hospital ; and, with the victory which our navy then gained, the Queen saw an opening for developing her charitable scheme, and it was carried out accordingly in a truly royal way.

At the best the object which the Queen had in view could only serve a temporary purpose. She desired to find a home for the many

crippled, battered, old sailors who, in the many battles which occurred in her reign, needed a shelter, and could justly claim it, for the rest of their lives. But wars are not chronic, and crippled, maimed, and even aged seamen cannot be supplied annually according to order, without some violation of the ordinary rules which regulate human affairs; therefore the original object in the foundation of the Hospital soon came almost to nought. To serve therefore a temporary and a pressing need, the charitable Queen continued the erection of a costly building which had been intended as a palace, and which was not finished by the time that all her special protégés were in their graves.

The original charter is dated the 25th of October, 1694, and the buildings were not completed till 1758. In case the original charter is not well known the following extract will be sufficient to explain the idea which Queen Mary had in founding the Hospital. "Whereas it is Our Royal intent and purpose to erect and found a Hospital within our Manor of East Greenwich, in the County of Kent, for the relief and support of seamen serving on board the ships or vessels belonging to the Royal Navy of Us, our Heirs, or Successors, or employed in Our or Their service at sea, who by reason of age, wounds, or other disabilities, shall be incapable of further service at sea, and be unable to maintain themselves; and for the sustentation of the widows, and the maintenance and education of the children of seamen happening to be slain or disabled in such sea service; And, also, for the further relief and encouragement of seamen and improvement of navigation; Now, to this end, our Royal purpose, etc." This extract is sufficient to shew what was the original idea of the royal founder of Greenwich Hospital. It supposed the perennial existence of a number of absolutely disabled and aged men, totally incapable of maintaining themselves; of men, who would have no homes to go to, no relations to look after them, who would be incapable of any enjoyment of life, and who would require to be looked after both as to their bodies and their souls. But in place of these delicate hothouse plants which war gave us, a race of hardy annuals came, living to a green old age, capable of enjoying life as long as it existed, hardened by the labours of their early lives, and never permanently disabled on this side of the grave.

It was found at length that, not only was the Hospital converted into a sort of alms-house for old men, but that it was difficult to obtain a sufficient number of old men to fill the wards. Then officers were introduced, for whom it is doubtful whether any provision was intended; and lastly, when it was found that the administration of the funds was unsatisfactory, and the pensioners had the option of staying or of going where they liked, with a money allowance in lieu of their board and lodging, they elected to go, leaving but a few hundreds of the halt, the maimed, and the blind, to testify to the existence of the Hospital as an asylum for seamen. This was after all but in accordance with the fate of other similar institutions. The Trinity House maintained some alms-houses at a considerable cost, and provided their inmates with all sorts of allowances in the shape of

coals, candles, etc., and with luxuries such as a doctor, and nurses ; but when the maintenance of the houses was found expensive, and the men had the option of going with a money allowance instead of a home, they preferred the former and walked, leaving, contrary to eastern custom, their beds behind. In fact, the facility of travelling is now so great that a man finds it as easy to go to where his friends live or to his home, as the case may be, as to go to Greenwich or to any other place where there is an asylum to receive him.

But in the case of Greenwich Hospital, though circumstances have altered and times have changed, the old building still remains ; and the difficulty of knowing what to do with it is still unsolved. A practical man might suggest that, if the building were not really wanted, the best plan would be to pull it down, sell the materials, and build upon the ground. This solution of the difficulty would be practical and, no doubt, profitable, but it is doubtful if it would give general satisfaction. Every one who knows the building at all, knows also what a shame it would be to pull it down. To every Londoner, whether he is merely on a journey by the steamer to Greenwich, and inspects it carefully before he proceeds any farther ; or whether he is a pleasure seeker on his way to Gravesend ; or whether he is a traveller on a long or a short voyage, and only sees it in passing, it is a building of great interest and of pleasant associations. It is the first pleasant sight he has after he has left London Bridge. Its symmetry and beauty attract his attention at once and make him feel that it would be a shame to destroy it while it was possible to put it to any use.

The Government animated partly by this feeling, and partly by an objection to destroy anything inconsiderately, did what they thought best at first, and retained as pensioners all men who were too infirm to be sent away. They thus restored it to its primitive use. But, unfortunately, the numbers were terribly small, and did not exceed or even reach four hundred, and the best part of the Hospital was left quite empty. This large building, therefore, which is capable of accommodating nearly three thousand men has had to be maintained and kept in repair throughout for less than four hundred ; and the expense of its maintenance has been rather a drag upon the funds. It is no wonder then that the cost of keeping the few men who are now provided should seem great, not only as compared with other Hospitals, but even with the excessive cost of maintaining a much larger number of men on the old system. At present the estimated cost of keeping up this establishment for the ensuing year is £46,843. But we may deduct the cost of the establishment at the Admiralty, and of the Office of the Comptroller of the Estates, as they have no direct reference to the maintenance of invalids in the Hospital ; and the expense will accordingly be reduced to £44,118. The number of inmates which may fairly be considered the average for the year is 380 : and the cost of keeping each man is therefore £116 per annum. Here again an item of £1631 for superannuation allowances is included, which would exist whether these invalids remained as inmates or not, and which may also be struck out of this calculation. The charge then per man

per annum, would be £112. The "*Times*" and other newspapers find the average cost of maintaining each man at £114; but the basis of their calculation was not given, and it is not clear how it was arrived at. So then we find that, at present, by keeping up the Hospital as an asylum for invalid seamen, it actually costs about £112 to keep a man there for a year. Of course this charge includes the cost of keeping the buildings in repair, and purchasing provisions, etc.

Supposing however that we make some further reductions still, and only charge the proportion for the repair of buildings for 365 men, and see then what the result will be. Greenwich Hospital has room for 2,710 men; and, as these repairs extend to all the buildings, it will be fair only to take the proportions of the expense which applies to 365 men, the number actually now borne. This proportion is £813, which will leave the sum of £5,227 to be abated from the total estimate as not applying to the present inmates, and as representing, in fact, the cost of repairing those parts of the Hospital which are now unoccupied. The same plan may be adopted with regard to provisions; the estimate being for 500 men; but as the actual force is only 365, the amount we may abate is £3,267. Pensions amounting to £3,000 may also be abated; also superannuation allowances amounting to £1,631; and lastly, the proportion of washing and medicines for the difference between the estimated and actual number of inmates, which amounts to £648. The result is that the estimate will be reduced now by £13,773, and will leave the estimate for maintaining 365 men at £30,345, which gives an average of £83 2s. 9d. a man. This calculation is based on the supposition that the number of inmates is the same during the ensuing year as on the 1st of March last; and that the charges for keeping up the establishment and for meeting demands for superannuation are not included. But, if we allow the 500 men which the Government estimate is supposed to allow for, only charge the proportion of charges for repairs for 500 men, and deduct money and superannuation allowances, the estimate will be reduced to £34,561, and will give an average cost per man of £69 2s. 5d. And, if the money allowances of £3000 be included, the average will be £75 2s. 5d. per man.

Now we may turn for a moment to the old state of things, and see what the cost was under the former system. On turning to the report of the Royal Commissioners of 1859, we shall find there the total expenditure of the Hospital per annum, was £99,577, and that 1,676 men were provided for; so that each man cost during the year about sixty pounds. This was including all the charges for repairs, for nurses, clothes, allowances, and every other expense directly connected with the Hospital.

It is not forgotten yet, how strong was the expression of indignation at the extravagant cost of the management under the old system, and how virtuous was the horror which first viewed it and then determined to expel it. The result would seem to be with the Hospital, as with the young man in the parable, who had his house in his absence swept and garnished, but who when he returned brought with him

seven devils worse than himself, and made the state of the place worse than before. So it would appear with poor old Greenwich Hospital. Commissions have sat upon it, Committees have examined it, and for once in a way the Admiralty, seemingly galvanized into a sudden and apparently artificial and unnatural burst of life, rooted up the whole framework of the institution, with a determination which would have seemed reckless did it not bear the stamp of forethought ; and with a hastiness which, but for the never-failing and necessary gravity of the Board in exercising its public functions, might have been mistaken for levity. However, the changes were made in hot haste—Commissioners were either killed or sent about their business, and like the American soldiers after the war, were absorbed into the “general prosperity of the country.” Officers received the happy or unhappy despatch as the case might be, and that their bodies and souls might still be provided for in their new homes, they were allowed something per annum, in addition to their pensions, for medical attendance and pew rent, in lieu of the Doctor and the Church, which an “indulgent” Admiralty had allowed them when living in the Hospital. Pensioners left in shoals with no trace behind but a few unpaid scores at some favourite public houses. And Greenwich—Greenwich—even-handed even in its frailty, wept with one eye and smiled with the other : it had lost friends and custom ; but it had also lost a nuisance.

Yet, in spite of all these rapid changes, the result does not seem bright. The extravagant cost of affording the old seamen an Asylum was the chief ground of complaint ; and now that reform has been carried out with a strong hand, behold, the cost is double. If a pensioner under the old system cost £60, he now does not seem to cost much less than £120.

It is not to be wondered at then, that numbers who take a delight in picking holes in public expenditure should gloat over such extravagance as this. To them it is an unexpected windfall, that the Admiralty, first finding fault with the mal-administration of the funds of the Hospital, carrying out extensive reforms, then finally with an air of superb condescension taking the management into their own hands, should now be found to be more extravagant than their persecuted predecessors. Others again, assuming that the management is economical and that the expenditure is necessary, but that empty rooms and bare walls are hardly worth supporting for any intrinsic worth however great, pour suggestions with a generous liberality for turning the vacant buildings into use. Agitators of this class are worth listening to though their suggestions may be hazy and bear the mark of being one-sided. At all events they take up a more practical ground than the financial critics. It is but fair, after all, to assume that the Government in saddling itself with the funds and responsibilities of the Hospital, had no other object than to manage them wisely ; and to allow that they have not neglected their self-imposed labour. Therefore the only point which is worth looking into is that which refers to the appropriation of the buildings themselves.

The most prominent suggestions which have been made refer more

or less to applying the wards to Hospital uses. On one hand it is urged, and the claim has been admitted, that the Merchant Seamen are fairly entitled to be considered. A claim they certainly have, for their forefathers or those who have gone before them contributed liberally to the funds. The Registered Seamen's Act of 1695, provided that every seaman should contribute sixpence a month to the Hospital; and, until 1834, this Act was in force; so that for a hundred and thirty-nine years the Merchant Service had a personal interest in the Hospital and a direct claim upon its funds. Bare justice may therefore be said to be now granted, when Merchant Seamen are supposed to be allowed some benefit in its advantages. The justice is however very bare, for admission is only given to those who are wounded in action or in encounters with pirates. Various other claims have been set up by those whose only interest in the place and only right are that they live in the neighbourhood. The sick poor of Greenwich and the surrounding districts have claimed to be considered and on no other grounds.

These petitions point one and all, more or less, to making the Hospital one large receptacle for invalids of all classes. No doubt the petitions mean very well, and their idea is that the Government will be unwilling, if they are not positively unable, to depart from the terms of the Acts of Parliament under which the Hospital was founded. But we are only shown here that no allowance is made for changes in language which two or three centuries invariably introduce. The old idea of the word "hospital" has not much in common with its modern use. In the present day, we associate nothing but sickness and disease with the word, and describe all houses for the reception of the sick under this common title. Now, without quoting authorities or Special Acts of Parliament, the extract already given has only to be referred to, to prove that Greenwich Hospital was meant not as a Hospital for the sick, but as an Asylum for the infirm and aged. What need is there of Acts of Parliament to prove this when there is a very substantial proof within a few yards of the Hospital in shape of an Infirmary, an Infirmary specially erected for the reception of the aged and infirm who might be ill at any time. Besides, the idea of flooding Greenwich with two or three thousand men suffering from every manner of disease, would soon make a very respectable borough perfectly uninhabitable. If in considering the best means of settling the redistribution of seats in Parliament, the Government are anxious to find an easy means or excuse for disfranchising any naughty borough, such as Reigate, Totnes, or Yarmouth, here is a way open to them. Introduce a large infirmary with a couple of thousand diseased poor, and any borough would speedily disenfranchise itself, for we may be very sure that, at the next election nobody would be left to vote.

What however, is to be done with this vast building if infirm and helpless seamen will not enter it? There seem to be only two ways out of the difficulty which are satisfactory and sensible. In the first place, it is open to the powers that be to pull down the buildings and sell the ground; in other words "deconsecrate" it as it is now

termed. The only other plan is to carry out the original Acts of Parliament differently; regarding the wishes of the Royal founder of the Hospital, as being unsuited to the present day and impracticable.

Take a wide view of the intentions of the founders, and it need not be deemed impossible to carry out their ideas, though not perhaps in the way which would have occurred to them. The Hospital was built for the benefit of the Navy, and to that object let it and its funds be devoted. A hospital once meant what we now understand by the word "Asylum;" it has altered its meaning now so as to be applicable only to houses for the sick. Let it in future have another and a better meaning than either; a meaning more material and more practical. Let it mean a temporary dwelling for those who are well and strong, but who often want it more than the weak or the diseased. In the present day community life is bad for the infirm, dangerous for the sick, but valuable and useful to the active and the strong. Barrack life is being urged and demanded more and more for the Navy; and here seems a solution of the difficulty.

Barracks for seamen have been as yet tried only on a limited scale, and may be considered an innovation. But, without suggesting anything new or impracticable let us look at what has been tried, and is now, actually wanted. The marines lead a life which alternates between barracks ashore and barracks afloat. Yet, valuable a body as they are, we are forced, with great reluctance, to reduce them because we have not ships enough to send them to sea in, nor sufficient barrack accommodation to keep them when on shore.

Before enlarging any further upon the idea of converting Greenwich Hospital into Marine Barracks, it will be well to see whether accommodation is really wanted. Upon turning to the navy estimates for the ensuing year it appears that no decrease is proposed, and that the number enrolled during last year it is still proposed to retain, namely 16,400. At present there are six depôts on shore where barracks are established—one each at Woolwich, Chatham, Plymouth, and Deal, and two at Portsmouth. But so limited is the accommodation at these stations that it is proposed to spend £45,220, this year to increase it. This sum is to be divided between Portsmouth and Plymouth, which are the principal depôts for marines. The Portsmouth division claims £21,700 of this sum for the construction of officers' quarters within Fort Cumberland, as well as quarters and barracks for twelve hundred officers and men of the Royal Artillery outside the fort. The total cost of this work was originally estimated at £167,801, of which the sum of £138,000 has already been spent. At Plymouth £180,000 was voted some time ago to purchase ground for additional barracks which were wanted, with schools for the children and gymnasium for the men; and of this sum £124,957 has been spent, which leaves the present, and next year to divide the task of completing the work by incurring an almost even expenditure of £23,500 for each year.

As far then as can be gleaned from public records the country has been asked, and has promised, to pay about £350,000 to increase the

accommodation for the marines. No Englishman who has the interest of his country or the welfare of the Navy at heart, would, for a moment, grudge this expenditure. The marines, as a body, have existed for nearly three centuries, and during that time have been renowned for their loyalty and steadiness. In war they have been the first to shew themselves as good soldiers as sailors; in peace they have shewn themselves orderly and useful; in times of turbulence and mutiny they have ever sided with authority. On all these grounds then it is felt by everyone in power, and this feeling has been always expressed strongly both in and out of the House, that the marines are entitled to every consideration, and that as a part of our Navy they are more than useful, they are necessary. When the suggestion was made last year to reduce them it was generally considered that a mistake had been made. But it is clear that with the limited accommodation for them at present no other course is open; at all events, if to reduce their number is not requisite, to increase it is almost impossible.

Greenwich Hospital seems then, here, to supply a want. Is it absolutely impossible to devote a part, if not the whole of it to marine accommodation, and let Greenwich have a division of marines? It would thus be close to town and be ready in any emergency for active service. It would interfere with no other military body by being placed there, and would not necessarily be offensive to the inhabitants. Worse than the poor old pensioners they could not be, and a more orderly and respectable set of men they most certainly would be. Greenwich has long been associated with the Navy by tradition and through its Hospital; and by converting this Hospital from an asylum into a barrack of marines, the law of association would not be violated, and local traditions would be unimpaired.

By employing Greenwich Hospital as a Marine barrack the Acts under which it exists would not be violated. For, if a war broke out, the marines stationed there would probably be the first to be sent to sea; the wards would be empty and capable of conversion into a hospital again for the reception of wounded and disabled seamen. And, even if no war broke out there need be no real violation of the principles upon which the Hospital is founded. As seamen do not care to make a home of it, pensioners who are entitled to do so if they wish receive instead pensions of ninepence a day to those above seventy years of age, and fivepence a day to those whose ages are between fifty-five and seventy. The funds in fact are to be devoted to making allowances of money to men instead of providing them with a home. But the funds at present are not sufficient to defray the claims of all pensioners who are entitled to these advantages; for, it is impossible to grant pensions to men now who are less than sixty years of age, although applications for pensions from men between fifty-five and sixty are very numerous. Therefore, as the marines have no direct claim to Greenwich Hospital as a barrack, the Admiralty might rent it and apply the money in pensions. The Building is peculiarly adapted for barrack accommodation, as there is plenty of

room for officers and men, while there is an infirmary close at hand for the reception of invalids. The Admiralty therefore would gain considerably even if they paid for the use of the Hospital for a fresh body of marines.

At present, as a Hospital, it is almost useless. Its expenditure is not only excessive but profligate. To keep three hundred and sixty-five poor old men at a cost of about £45,000 requires no comment, and, after all, the only object of keeping these poor old souls is for the sake of sentiment or to preserve an idea with which the memory of Queen Mary is supposed to be associated. Now there can be no harm in sentiment when it does not cost too much, and when it does not stand in way of what is absolutely useful. There is, indeed, not so much objection to the first as to the second of these propositions; for sentiment like every other luxury, is when cheap sure to be nasty. But, when a building like Greenwich Hospital, is really useful, and is urgently wanted, sentiment has no business to stand in the way.

There are many ways to which its funds could be well and properly applied, all good and all reasonable, but none apparently so good and so rational as to Marine Barracks. The foundation of a new division of marines would not be very costly, would add lustre to the old Hospital, and certainly not tarnish its reputation; while the country would feel that, to a certain extent one of its great institutions was being well used, and that to a certain extent even its Naval power was undoubtedly increased.

MONITORS VERSUS IRONCLADS.

WHILE the Monitor affords a steady platform in a heavy sea for her monster guns in bad weather, which it is natural she should do, and such weather (according to the reports of our own officers), in which our ironclads in consequence of their rolling properties could not fire a gun, who can doubt which has the superiority as a man of war. The Monitors are steady because their heaviest weights are amidships. The broadside ship rolls because her heaviest weights are and always must be at the sides. The very change to monster artillery of late renders the Monitor system of ship the first essential to the command of the ocean. Such is the opinion we have long entertained, and now we find some good confirmation of it in a daily print.

The *Daily News* is no less happy in its arguments than conclusive in its reasonings on the subject of turret-ships *versus* ironclads. And we not only thoroughly subscribe to that reasoning but will bring an opinion or two from across the water; from those shores where ironclads and turrets have already tried their strength, and the latter established themselves in the estimation at least of American officers.

The report of Admiral Goldsborough on this subject appears in our volume for 1864, wherein he says, in page 637, "A difference of

opinion is found among seamen, as well here as abroad, as to whether it is better to use the guns of a plated ship in a turret or in a broad-side with a deck over them. For my part I have no doubt on the subject, particularly if the ship be of modern dimensions, so that with her swiftness she might manage to find a favourable moment to enable her to act as a ram sufficiently to crush any enemy's sea-going ship. To wish for more is in my opinion, merely superfluous.

"I consider the turret as decidedly preferable for the following reasons :—

"The turret ship renders a single cannon equivalent at least to two others of the same class that might be in a battery in parts, and that with a very large diminution of crew.

"She allows the use of much heavier guns.

"She does not require of necessity so superior a degree of swiftness.

"She affords better protection to her guns and their crews, and besides she allows the use of much longer guns, *even at sea*."

So says Admiral Goldsborough, and in our volume for 1865 we find some remarks thoroughly confirming all, and more than Admiral Goldsborough has said. It appears that Admiral Porter had four Monitors under his inspection, and that he reported on their behaviour* in a sea gale which they experienced. Anchored in a seaway off the coast, the Monitors rode out the gale well, while all the transports "cut and run." "As to the *Monadnock*, he says, she could ride out a gale at anchor in the Atlantic Ocean. She is capable of crossing the ocean alone, and could destroy any vessel in the French or British Navy, lay their towns under contribution, and return again (provided she could pick up coal) without fear of being followed. She would certainly clear any harbour on our coast of *blockaders*, in case we were at war with any foreign power." So says Rear-Admiral D. D. Porter, of the American Navy. Is this warning enough for us or shall we do nothing in the Monitor way until the day should come (which let us ardently hope it never will) when we are to have the fact forced on us by experience. Let us imagine a *Monadnock* (which would ride out a gale in the Atlantic) anchored in a gale off any of our ports doing with them what she pleased. None of our plated channel fleet if they were outside could face them by our own report in our last number. They could not cast loose their guns because they roll so deep. The heavy sea running prevents all that, while the Monitors, or the *Monadnock*, or the *Ironsides*, or *Miantonomoh*, has a steady platform, and her huge guns do all that she requires.

"These vessels," says Admiral Porter, "have laid five days under a fire from Fort Fisher, anchored less than eight hundred yards off, and though fired at a great deal, they were seldom hit, and received no injury except to boats and light matter about decks." * * * Then he adds, "I have only to remark that the principle is a good one, if the vessels are all built like the *Monadnock*."† The fire of these vessels

* His Letter will be found in p. 165.

† It was the *Miantonomoh* which came to Spithead.

continued with the fire of such vessels as the *New Ironsides* and heavy frigates is very effective, particularly against heavy plated vessels, bombproofs, and stone or brick walls."

Here then are the opinions of two American Admirals. Officers be it not forgotten who have had the experience of these vessels in their late contests in the Confederate war. If we will not believe them, and profit not by their information, we shall well deserve to see the vaunted prowess of England on her own element gone to the winds, gone with her once famed wooden walls to the shades of oblivion, and be at the mercy of any power who can adopt their mode of warfare to the fashion of the age without sticking like Chinese to old fashions because they served well in the days of their forefathers.

The ships of war of former days (although they are even in use in these piping times of peace) are gone by. Turrets will be as we have long since said, the future bulldogs of the sea, and well will it be for that nation which has them. They will do the heavy work, such as disposing of ironclads, and ironclad forts; some few heavy gun frigates will serve as rams and be the active workers of destruction, while torpedoes will do the essential after another fashion, so that warfare on salt water will be as brief as the needle gun has made it on shore, or as the Schneider rifle will hereafter make it. Words of warning have not been wanting, even from these pages,* and if we are not found ready in these new fashioned means of warfare, England must put up with the consequence. But let her look out ahead.† When war does come in earnest it will be sharp and short.

* See abundance in our last volume.

† We gave an account of the future ship of war, the *Miantonomoh*, in our last volume. But here is an account of a special visit to her by the Lords of the Admiralty and others as she lay at Spithead last year, on a very interesting occasion.—"The monitor *Miantonomoh* will, after a short stay at Cherbourg, for which she sailed on Saturday, arrive in the Thames, though this was not contemplated when she left America. In their visit to the *Miantonomoh* at Spithead on Friday last the Lords of the Admiralty were accompanied by Mr. Fox, Captain Cowper Phipps Coles, R.N.; Captain Bythesea, R.N., V.C., Naval Attaché to the British Embassy at Washington; Lord John Hay, M.P.; the Earl of Wilton, commodore of the Royal Yacht Squadron; Mr. Westley Richards, etc. The Duke of Somerset, with the controller and other members of the Board of Admiralty, having been conducted over the ship by Captain Beaumont, and minutely inspected her on deck and below, took up a position on the raised hurricane deck, in company with the Hon. Mr. Fox, to witness the firing of two shots from the enormous 15-inch smoothbore guns which form her turret armament. The officers and crew of the ship took up their respective positions at general quarters, all hatches were securely battened down, the supply of air below was provided for by setting the ventilating fans in motion, and the ship in every respect prepared for action at sea. These preparations having been made, a visit to the deck below demonstrated clearly enough that, although in certain portions of the 'tween deck the atmosphere felt slightly oppressive after just leaving the open of the upper deck, the air was really cool, as proved by the thermometer ranges, and the ship might be fought through a long summer day's action under the same conditions without distress to any on board from heat below beyond what would necessarily be found in any ordinary steamship of war. The first gun fired was charged with a 35-pound powder cartridge and a sabot live shell, at extreme

However we must not lose sight of our original intention, which was to preserve the following remarks of the *Daily News* :—

"A Lecture by Captain COWPER COLES, followed by a discussion on the merits of turret ships, is an event which has not the attraction of novelty to render it interesting ; yet the large audiences which have been for two successive evenings drawn to the United Service Institution by such a programme testify to the deep concern taken in the subject by the *naval profession* and the public. This concern is not abated, but strengthened, by the fact that Captain COLES is still obliged to explain his views by words and diagrams, since our authorities have denied him the opportunity of showing them in operation in a sea-going ship. The truth of his principles has taken hold of the minds of the most competent judges, the partial specimens which have been allowed to illustrate them have fully confirmed their soundness. Officer after officer of the highest consideration has declared that they indicate the system which must be adopted in the future fighting navies of the world, and therefore the cold shade of Admiralty discouragement has not extinguished the eagerness with which the old details, familiar already for years, are still listened to when urged by the indefatigable inventor. And the position the question has attained is now formally confessed by the fact that the highest dignitaries of the department of naval construction, the Comptroller and the Chief Constructor of the Navy, have found themselves compelled to come down from the serene regions of official reserve, and to condescend to debate the merits of the question with the inventor, and with the mere executive officers who have got to fight our ships. If these personages should in so novel a position spend a good deal of time in reciprocal testimony to the extraordinary merits of each other, it must be conceded as only a reasonable use of an opportunity for doing that which nobody else can be found to do.

"What Captain COLES has really to relate of novelty is comprised in what *foreign Powers* have done in the direction which we have neglected. Since 1862 twenty vessels on his principles have been designed and built in this country for other States. These vary in size, from dimensions little exceeding that of a gun-boat to those of first-class ironclads. They have crossed the Atlantic, rounded Cape Horn, been in action in the Baltic and up the South American rivers, and in all cases have behaved admirably, and thoroughly realized the good points expected from their design. America also has adopted the system, and has sent to Europe a specimen of the class of ship *with which she means hereafter to fight her naval battles* (from experience gained in the Confederate war !) And whoever, whether in England or elsewhere, has fairly studied the question has come to the

elevation. The effect was very grand as the vast globe of metal, propelled from the mouth of the gun with a deep hoarse roar, went hurtling on its course until it fell at an estimated distance of about 3,500 yards from the ship. The second gun was charged with 35 pound of powder, a solid iron shot of 460 pound, and fired point blank. If the last shot was grand, as exhibiting the flight of a 15-inch shell, this was more interesting, as exhibiting—what we have as yet made no provision for in rifling our heavy naval artillery—the perfection of *revolver* firing. The immense ball spun along its course over the surface of the water as truly as the cricket ball passes over the smooth green sward towards the wicket. The noise of the explosion, the concussion felt, and the smoke which entered the turrets on the firing of the guns were neither more nor less than would be naturally expected in firing 35-pound powder charges."

conclusion that vessels of such a character are far *more formidable than any broadside vessel we can turn out*. They have the advantage of being cheaper in first cost, of throwing a heavier weight of metal to tonnage, of needing fewer men, of exposing the men less, of affording a steadier gun platform, and of being able to fight when other ironclads *dare not open a port*. All these advantages are confessed and insisted on by the most distinguished of our practical naval authorities. Yet in spite of all the fact remains, that in this year of grace 1867 we have not got one single specimen of a sea-going turret ship.

"When the professed reasons for this state of things, adduced on the Admiralty side in the late discussion, are examined, they show by their shallowness what must be the true causes. Mr. REED objects that Captain COLES does not take an impartial view of the subject. Suppose he does not, is that any palliation for the Admiralty refusing to act on the recommendation of our most eminent admirals and captains? Mr. REED says Captain COLES misrepresented the merits of his own broadside ships. Suppose Captain COLES did, is that an explanation why broadside ship after ship has been built, while Captain COLES has been denied a single fair experiment? Mr. REED demurs to the alleged cost of his Bellerophon, as compared with turret "Captain," contracted for by Messrs. LAIRD, because the interest of plant and the share of the dockyard chaplain's salary have been added to the outlay for work and materials in his ship. But does Mr. REED expect the public to believe that Mr. LAIRD's charge does not include anything for the use of his plant, and if not a chaplain's salary, a certainly much greater sum for contractor's profit? Mr. REED in one sentence protests that he is a sincere friend of the turret system, and in the next breath he warns his hearers that officials have their sentiments of honour, and if much badgered will refuse to budge! Mr. REED deprecates the designation of the Admiralty as the Anti-turret party, because he says, *they found the broadside system existing*, and are only sticking to it; as if obstinate resistance to improvement entitled people to be treated with extra reverence! Mr. REED defends Admiral ROBINSON's honour and devotion to his duties, when the charge is not of dishonour but of prejudices, and not of laziness but of wrongheadedness. When he comes to the merits of the turret ships he is equally infelicitous in his excuses. He says that their armour is not carried so deep below the water-line as in his vessels, blind to the fact that when his ships *roll twenty-five degrees* their unarmoured bottoms will be exposed to shot, and that *they dare not cast loose a gun*, while the turret ship, *rolling only seven degrees in the same sea*, will neither expose her bottom nor be prevented from fighting her helpless antagonist. He cites the Wyvern as proof that a turret ship will roll too, deliberately oblivious of the fact that before the Wyvern went to sea Captain COLES protested against her being considered any fair specimen of his principle, proposed improvements to adapt her to service, and received from the Admiralty an official acknowledgment of the receipt of his letter, with an intimation that it would not be acted on.

"Admiral ROBINSON, if a more plausible, was by no means a more successful, apologist than his coadjutor. But his defence had at least the merit of startling boldness, for he declared that he alone was the true friend of the Turret principle, and that Captain COLES was its worst enemy. When this dream came to be expounded, it resolved itself into the assertion that Captain COLES believes the principle applicable, with suitable adaptations, to every purpose of a ship of war; while Admiral ROBINSON declared, that though it is undeniably the best for purposes of coast defence, or of attack of harbours or rivers, it is incapable of

application to cruisers. Now, it is at least curious, that if admittedly so valuable for the important services of attack and defence in the Channel, we should possess as yet but two specimens of it adapted to such services, since the Scorpion and Wyvern, disclaimed by Captain COLES, are scouted also by Admiral ROBINSON. One would certainly have expected that in six years of preparation and panic, when we have, for the sole purpose of defence, raised a volunteer army, and spent five millions in granite forts, we should have obtained more than two imperfect examples of this acknowledged best class of ship for the protection of our shores. But when we turn to Admiral ROBINSON's objections, we find them as irreconcilable with his reasons as his approval is with his actions. He says, height of the gun above the water is necessary to enable it to be aimed at an enemy when the sea runs high, while a low freeboard is necessary to steadiness. He forgets, in the first place, that if on any occasion the gunner in the turret could not see the enemy, much less could the enemy see the low vessel which carries the high turret. But he next forgets that the very peculiarity in the turret is that *it carries the guns far higher than ordinary lower deck ports*, and as high as may, in fact, be thought desirable, while the sides of the turret ship may be cut down lower than any broadsider's ever can be.

"The public, which cannot follow the details of official jealousy, will judge in this debate from the broad and palpable facts. Mr. REED has been indulged with the construction of a whole fleet of armoured broadsiders (for the designs of which he, in receipt of a large and permanent salary, curiously complains he has not been paid); he has been allowed to alter and patch them regardless of expense, and to try all manner of experiments with a view to get a favourable result out of some; while the practical result is summed up by his friend Admiral ROBINSON in the comforting prediction that ironclads will never fight a battle in a seaway. Captain COLES has been prohibited from the construction of one vessel according to his own models, though they are models which, when adopted in private yards for the use of foreign Powers, have turned out ships that can go anywhere and fight in all weathers. For Mr. REED there has been every official indulgence and protection, so long as he would stick to fixed boxes in place of revolving turrets. For Captain COLES there has been an Admiral ROBINSON, who sits up aloft to twist the report of every seaman who calls for turrets as preferable to boxes into evidence that seamen don't understand their business, and are ridiculous in wanting to fight in bad weather, or to save their men from being picked off at their guns by rifle balls through the open ports."

The curious fact still remains before the world, that a naval officer of this country produces an invention which is carried off to America, and perfected by that Government as the most formidable means of Naval warfare; which is also reproduced in this country (although not to the extent that it is in America) at the desire of several foreign Governments, to carry on their *little* wars, and to add to their own navies; while our own Government, hesitating and doubting, and even denying its efficiency at length allow the inventor to build *one*. Our rolling ironclads are laughed at. The Americans laugh at the idea of any vessels blockading their ports in the face of their Monitors which they have obtained from ourselves, of course improving on the principle.

CIVIL LAW AND MARTIAL POWER.

*(Continued from page 249.)**No. III.—The Crown has no power to suspend Civil Law in the Colonies.*

THE concurrent authority of the great lawyers of the last two centuries has established that "martial law," in the sense of any lawful government by military authority, is wholly alien and unknown to our system; that martial law means nothing but the lawless exercise of force; that if the names of Coke, Mansfield, and Tindal retain their title to respect, the law of England, whether statute law or common law, may be *violated*, but cannot be *suspended*.

So far as England is concerned, I assume that so monstrous a prerogative will never again be claimed, even to serve as an expedient of debate. But a vague impression remains that some such power exists in the colonies; and it has, undoubtedly, been exerted. It is with this aspect of the case that I now propose to deal. I will try to justify the rule that *the Crown has no power, and can delegate no power, to supersede civil law, either in Great Britain or in the colonies*, and that Jamaica proves no exception to the rule.

It is a fundamental rule of English law—I would almost say of our civil society—that when subjects of England settle beyond seas, they carry with them the essential features of the law they live under, and they no more abandon the English law than they put off their natural allegiance. They remain subjects of the Crown; they retain their customs and rights. I say nothing of matters of detail not appropriate to their new situation, nor of petty exceptional cases in which civil society can scarcely have begun. I hold it to be beyond dispute, that wherever there exists an English settlement large enough to mirror and imitate the system of our country, there the citizen takes, as his inherent birthright, the grand customs and rights of his home, and renews, so far as can be renewed, the civil and social life of this island. He takes his allegiance to the Crown, but the Crown does not become, by the change of place, a despotic power; nor does the subject become by transplanting his home, a slave. As between king and subject the same leading relations remain; as between subject and subject the same great principles of law prevail. Details peculiar to place expire; the essential attributes of civil rule and a definite constitution survive. In a word, it is too certain for argument that the law and statutes of England existing at the date of settlement, not being inapplicable to its condition, and not repealed by its local legislation, form the law of every colony of the Crown.

Now, is it possible to argue that, in these essential features of our system, the right of civil justice, the freedom from arbitrary punishment, the abhorrence of martial law, and the nullity of royal prerogative, were not included? Will it be pretended, for instance,

that in Australia the Crown found itself in the position of the middle ages, and the colonists in the place of the yet unchartered subjects of King John? If it were not for claims deliberately made, it would almost be childish to insist that the first and most vital of all the attributes of citizenship was the first thing which English settlers take with them—the indefeasibility of civil justice, and subjection to a *limited Executive*.

Now men are found to contend that Jamaica forms a singular exception; that the settlers left behind them this cardinal right of citizenship, as totally inapplicable to the condition of the colony; and for the same remarkable reason the Crown always had there a power of vicariously suspending the laws. One would think that some worthy descendants of Jeffreys and Noy, of the men who sold their prostituted skill to tyranny, had survived somewhere in that island. Let us see how the case really is. I read in a special treatise on the constitution of the colonies—"In Jamaica, as in all other British colonies similarly acquired, all English laws existing prior to its occupation, and applicable to the colony, are binding."* The island, though conquered by Cromwell, was not regularly settled until Charles II., who, in a proclamation, did

"Publish and declare that all children of any of our natural-born subjects of England to be born in Jamaica shall, from their respective births, be reputed to be, and shall be, free denizens of England, and shall have the same privileges, to all intents and purposes, as our free-born subjects of England"—

always excepting, we are assured, the privilege of not being put to death at the king's good pleasure. Then, by a statute of George II. (1 Geo. II. c. 1. s. 22, substantially renewed by 8 Vict. c. 16—Jamaica), it was enacted that

"All such laws and statutes of England as have been at any time esteemed, introduced, and accepted or received as laws in this island, shall, and are hereby declared to be and continue, laws of this, his Majesty's island of Jamaica for ever."

And we are now asked by learned jurists to believe that the provisions of the Charta, of the Petition of Right, of the common law, as to exemption from arbitrary arrest and military punishment, never had been introduced, accepted, or received as law in Jamaica. Let the shades of Scroggs and Shower be at rest: they were not the most servile of all English lawyers!

But unluckily for the Showers of this age (those servants of the Crown held high office, too, in their day), Lord Mansfield, in two of his most celebrated judgments, refers to and approves of two cases, both of them from the Island of Jamaica, and both of them bearing on the constitutional rights of the settlers.† In the one case he gives his

* Mills' Colonial Constitutions, p. 233.

† See XX. State Trials, 232 and 326.

opinion that the colonists were not liable to taxation by the Crown, for the same reasons that all English subjects are free; in the second case he expressly points out that the Governor of Jamaica is responsible in England for acts of arbitrary imprisonment. From all these considerations together I still retain the opinion, in spite of the *obiter dicta* of the leader of the House of Commons, that the English citizen of Jamaica possesses in the fullest measure the first of all the franchises of every English citizen—the freedom from arbitrary punishment.

I turn to the question if that freedom has been voluntarily surrendered by his own legislative Act—if the citizen of Jamaica has passed acts to destroy that personal safety under the law which his English ancestors passed Acts to secure.

We come to the inquiry with this proviso, that the settlers of Jamaica enjoy to the full the common birthright of English citizens, and that the English law knows nothing of "martial law," except as military violence. Now, it is most certain that the Jamaica legislature emanates, not from Parliament, but from royal commission; and the Crown could not give it, and has not given it, the power to abrogate the first principles of the statute and common law of England. The Jamaica legislature has attempted nothing of the kind. We are told, however, that a certain clause in the Militia Act of Jamaica (9th Vict. c. 35 s. 96) has had this tremendous effect. This clause empowers the governor, with the advice of a specified "council of war," to declare martial law in particular districts, and he is forbidden to declare it except under such advice. There is no definition, account, or statement of what martial law means, no explanation of its scope, power, or effect; what it may imply, what it authorizes, what it abrogates. There is, in the existing statute law of Jamaica, no single Act which does this—which limits, or explains, or defines it. If it be a thing recognized in law, the law must have some mode of explaining it. You are driven back to the common law to explain it, and the common law has a very brief explanation to give. The common law declares that "martial law" is military force; it knows of nothing else under that name—of no recognized system, of no lawful body of rules, nothing that has a place in civil society. Martial law is to civil law only as something which it abhors, knows not, defies. It is as if you might speak of "mob law" or "Lynch law;" it is the rule of the stronger. It simply means the recourse to the operations of war. In this sense the statute is intelligible and right. It empowers the governor, in cases of invasion and public danger, to proclaim that a *state of war* exists; that the rule of the stronger has commenced; that force is about to be used by the Government in defence of itself and the public—a duty which no one has ever denied to any Executive, but a duty or a right which neither suspends, nor abrogates, nor supersedes civil law as a right (though it forcibly arrests, it may be, its procedures, by sheer violence); nor withdraws for one instant, or in any particular, any citizen, official or not, from complete liability to account for every act in a civil court, so soon as their ordinary procedures are resumed.

Such is the meaning of "martial law" when a Governor proclaims it, or a statute authorises it, and the common law is left to interpret its import. It is a notice that the law is about to be *violated*, by resort to measures of war. But the new doctrine insists that the missing explanation may be supplied elsewhere—that the statute authorizes a state of things, the effect of which may be gathered from without. From whence? From some darkly-coloured picture of a state of things which may possibly exist, and which is vulgarly supposed to be lawful when an Austrian general proclaims a state of siege, or a Russian governor dominates in Poland—a real unquestioned and unquestionable absorption of all the civil powers of the community into the hands of a general; a lawful, because an unimpeachable, rule of force; a systematic law of the sword. Or are we to be told that this law is to be explained by some ancient "custom" of the island; that martial law has always been known in the island of Jamaica as a time of legal licence, a period for the lawful putting to death of black men by white; a recognized and organized reign of terror, during which civil law was dormant, and into which, on its awakening, it never could look back? Are we asked to believe that an Act of a Parliament of Englishmen embodies, and must be explained by, some despotic practice well known and thoroughly understood at Warsaw or Cayenne; some "custom" of the country long in use amongst the slave-drivers of the island to punish their refractory slaves? I would as soon believe that any act will, in an English court, be interpreted by the light of a custom of "martial law," as exercised by West-India planters, as I should believe that an English judge would interpret a statute by the light of, and with reference to, the "custom" of Dahomey.

But a startling claim has been made by the Attorney-General of Jamaica and the legal adviser of its late Government, that this right to the exercise of martial law is an old privilege of the island, and is authorised by one of its earliest statutes. "I will undertake to say," he tells us, "that the sun never rose and set upon Jamaica as a country in which the English law prevailed in regard to martial law."*

Let us examine this Act. It runs thus (33 Car. II. c. 21):—

"And be it further enacted, by the authority aforesaid, that upon every apprehension and appearance of any public danger or invasion the Commander-in-Chief do forthwith call a council of war, and, with their advice and consent, cause and command the Articles of War to be proclaimed at Port Royal and St. Jago de la Vega, from which said publication the martial law is to be in force; and then it shall and may be lawful for the said Commander-in-Chief to *command the persons of any of His Majesty's liege people, as also their negroes, horses, and cattle, for all such services as may be for the public defence*, and to pull down houses, cut down timber, command ships and boats, and generally to act and do, with all full power and authority, all such things as he and the said council of war shall think necessary and expedient for His Majesty's service and defence of this island."

* Report of Jamaica Commission—Evidence, p. 323.

So far the Act is entirely consistent with all that we maintain. It has reference solely to war, and it authorises the Governor to take measures absolutely needed for the public defence. But the statute does not stop there. As if foreseeing the dangerous use to which these words were hereafter to be turned, it provides—and this proviso is carefully omitted by the Attorney-General in his evidence :—

“ Provided also, and it is hereby enacted and declared by the authority aforesaid, that nothing within this Act, or any clause therein contained, shall be deemed, construed, or understood to give any Captain, General, or Commander-in-Chief *any power or authority for the sending any person or persons off this island against their will, or to do any other act or thing contrary or repugnant unto the known laws of England or this island.*”

This statute was repealed by various recent Acts, and lastly by a general repealing Act in the sixth year of the Queen, but it was in force from the reign of Charles II., the date of the settlement of the island, until late years. It is plain that, during that period, whatever martial law might be in Jamaica, it was limited by law most carefully to the *impressing* men and animals for the public defence, and expressly excluded even the illegal banishment of a citizen, or any thing repugnant to the known laws of England. That Act is not now in force, and the statute which limits the proclamation of martial law does not contain the proviso and definition of the original Act. But if any one maintains that the fact of that omission authorises “martial law” in a sense which it bears at Warsaw, or in any arbitrary sense he pleases to invent—the whole notion being abhorrent to English common law—I think it will be a masterpiece of legal ingenuity. All we ask is, that the advocates of martial law shall tell us what they consider it to be either in England or in Jamaica, and in what authority they find that definition. In England, martial law is expressly forbidden by statute; in Jamaica it is forbidden in the only sense in which they claim to enforce it. I have almost done with this subject, and I believe that, to a jurist, in all the striking features of this case, the truly fascinating problem will be to ascertain what human acumen will contrive to unearth as an argument for this doctrine.

Every thing in the history of the island, in the statute-book of Jamaica, in the actual proclamation of Governor Eyre, combines to prove that the “martial law” which the Act of the Jamaica militia empowered had reference to the *conquering of an enemy in the field, and pressing civilians into the public service*. The history of the island is full of the sudden invasions of Spaniards and other public foes. The island was frequently thrown by invasion and by insurrection into a state of war. It was the duty of the executive to repel force by force, and to kill and slay enemies and rebels in the field. No one denies it, or doubts it. It was quite right that this state of war should be notified, and the statute empowers the Governor, under due conditions, to proclaim martial law. The statute itself does not define it, but previous legislation had strictly limited it to the necessity of war, so that nothing illegal was done. And how does this actual proclamation

run? It proclaims, in the name of the Queen, "that our military forces shall have all the power of *exercising the rights of belligerents* against such of the inhabitants, etc., as our said military forces may consider opposed to our government and the well-being of our loving subjects." It proclaims a state of war with rebels in the field, and the assumption of the rights of *belligerents* against them. Neither the Governor nor the Queen could do more. But what are the rights of belligerents? Killing enemies in the field. Can you try belligerents for treason? Are belligerents capable of indictment upon constructive charges of conspiracy? And now, under the effect of a statute and a proclamation dealing with a state of war, and giving forces in the field the rights of war, and no word more, on the strength of a repealed statute, strictly confined to acts otherwise lawful in themselves, we are told that the whole machinery of civil government was suspended; that civil and criminal justice was superseded; all civil functions, including the trial of civil crimes and the powers of civil magistrates, passed into the hands of soldiers; that a civilian who had done no overt act was rightly dragged out from the shield of civil law, summarily charged on the most solemn and formidable of all civil crimes, committed, as they charged, before even the proclamation of martial law was issued; and lawfully, without appeal, put to death, long after the very runaways had disappeared, and no act of war or violence was visible. Monstrous and insolent pretence!

But, in order to show that the proclamation of martial law in Jamaica not only did not supersede, but did not even disturb the exercise of civil justice, I draw your attention to an Act of the Jamaica Parliament, constantly renewed, which runs thus:—11 Vict. c. 7 (Jamaica):—

"Whereas it is highly expedient during the existence of martial law to prevent indebted persons from quitting the island, *to sanction and enforce criminal process*, and process for the preservation of the peace, to enable justices and vestries, and other parochial officers, to exercise their functions, and landlords to recover their rent in arrear: be it enacted, etc.

"2. That it shall and may be lawful for the chief justice of this island, and the assistant judges of the supreme court of judicature, and all and every the justices of peace in this island, *to act in their several stations and capacities in all criminal matters cognizable before them respectively*, by committing or bailing the offender or offenders, or binding over parties or witnesses to prosecute, in the same manner as they or any of them might have done *in case martial law was not in force*; and the coroners of the several parishes of this island, or any of them, are hereby likewise empowered and required to execute his or their office in every respect, *notwithstanding such the continuance of martial law*.

"3. And whereas many and great inconveniences may arise from possessions being forcibly taken and afterwards forcibly detained in time of martial law: be it enacted, etc., that it shall and may be lawful for the chief justice of this island and the judges of the supreme court

of judicature of this island, in cases of forcible entry and detainer, to sign writs of restitution and writs of possession, and to act and do therein as shall seem to them necessary and expedient, according to law; and the justices of the peace in this island shall also have and hereby have full power and authority to act in all cases of forcible entry or detainer in as full a manner as any of them could have done in case martial law was not in force; *and the provost-marshal and his deputies and the several constables are required to execute all writs, warrants, or other process and orders that shall come into their hands for the purposes aforesaid, under the same penalties, and subject to the same punishments, as if martial law was not in force.*"

The Act 21 Vict. c. 20 (1857) recites the foregoing Act, and then enacts that—

"The recited Act of the 11th Victoria chapter 7, and every article, clause, matter and thing therein contained, except in respect to the power or authority of the justices and vestry of the several parishes of this island to raise parochial taxes, shall be, and is hereby continued in force from the 31st day of December, 1857, *until the 31st day of December, 1867.*"

This statute appears to me of critical importance. It proves that, whatever the Assembly contemplated by a proclamation of martial law, it never intended the suppression or even the interruption of civil and criminal justice. I think we may justly complain that, in all the official statements, an act of importance so great has been studiously ignored, and that, with such a law staring them in the face, servants of the Crown in the island, at home, and in Parliament have dared to offer us the miserable and dishonest defences we have heard. By the light of this statute, the statements of ministers on martial law and its necessary consequences are seen to be a daring fraud, hazarded only with the hope that the public would never detect it. It is not very difficult to see the explanation of these two statutes of Jamaica. The one empowers the executive to proclaim martial law; the other provides that, when it is proclaimed, the whole machinery of civil justice shall remain undisturbed. The effect of proclaiming martial law I have shown by the old laws of the island was strictly confined to impressment for service. If it is attempted to give it a wider meaning by reference to a custom, I reply that a "custom" arising out of slavery, and the infamous train of its results, no English advocate would dare to plead before the bench of an English judge. Whatever it was, it was utterly extinguished by the Act for the abolition of slavery; which Act has destroyed all separate rights of colour, and entitles every subject of the Crown to the same civil rights and protection. But, whatever may have been the intention of these Acts, in Westminster Hall they can be read only in one way; and that way is utterly destructive of the outrageous claims of "martial law" we have heard.

This statute provides that every act of civil justice shall proceed as if martial law did not exist; it shows that martial law refers exclusively to war, and not to civil or criminal justice; it proves that no reason exists to make the ordinary criminal courts impossible under martial

aw ; it establishes that this reference to popular notions about martial law, and to the ancient " customs " of slave-drivers, is as worthless as it is degraded ; and I think it makes out that the leader of the House of Commons maintained, not a special prerogative of Jamaica, but a doctrine of constitutional law as unworthy and as wild as any ever uttered in those walls.

No. 4.—Military Courts can never have Jurisdiction over Civilians.

At a moment like this, it is of paramount importance to define the powers of the Executive in dealing with rebellion by the sharpest lines of the law. We, who stand waiting for the storm from the West to break upon our shores, as men wait for the tempest which the signals foretell ; who desire, when that storm bursts on us, to see a real, a strong, an irresistible government ; who believe that the moral forces are stronger than bayonets, that the consciousness of right, duty, and self-restraint gives to rulers a higher strength than all the power of mere lawless fury ; we are doubly bound to insist that the functions of lawful government shall be known and sustained in all their integrity. Let us, therefore, continue the inquiry into the duties and rights which attach to the exercise of military force against citizens of an English community.

We have done with the wretched pretence that the Crown or its officials can ever lawfully suspend civil law, or the least fraction of the common or statute law of the land by any expedient whatever, in England or in any dominion of this empire. The " suspending " power is the abrogating power, the legislative power. The " suspending " power is the mere corollary of the " dispensing " power : both must lie in the limbo of extinct monstrosities. To talk about any emergencies, any necessity whatever, as conferring the lawful exercise of this right without liability to account, is in a legal sense simply puerile. Who is to determine when this necessity arises ? The executive who is to exercise it, or the loose expression of public opinion ? The mere form of declaring that a " necessity " has arisen can neither increase nor reduce the legality of the act of suppressing the law. Times will occasionally arise when the law cannot possibly be obeyed. Force, necessity, then itself violates the law. But the duty of deciding when this moment has arrived remains indefeasibly with the law.

Let us pass to the practical question—what are the duties and the liabilities of a government suppressing an overt rebellion ? At the outset, let me insist that it forms no part of my argument to deny that every Executive is empowered, or rather is bound, to exert the whole force at its disposal to suppress violent resistance to lawful authority. Nor do I pretend to deny that, for even tremendous breaches of law, it may have a valid defence. Nor, lastly, do I venture to say that, in every case of such breach, it is desirable to put it to establish that defence. The maxims I maintain are these :—

1. Every official, like every citizen, whether acting under orders of

superiors or not, remains individually *liable to trial* for every breach of the law.

2. When put on his trial he may prove as a perfectly valid defence that his act was the only possible mode of fulfilling a lawful duty, or an act of absolute necessity arising from the nature of the case.

3. This absolute necessity is a pure question of fact, which nothing can withdraw from the inquest of a jury.

4. There can be no preliminary bar to such trial, but the plea of a strict Parliamentary indemnity.

5. Even when this indemnity is pleaded, and, *a fortiori*, when it is not, it always remains for a jury to decide if the act charged be tainted with personal malice, and was an abuse of a power defensible and lawful in itself.

Let us see what powers and what liabilities are created by these rules as regards an Executive. But in the first place we must remember that in the eye of the law an official is a citizen, his acts are the acts of a citizen; insurrection, civil war, revolution, are periods when law is extensively violated. Official immunity, prerogative, "reasons of State," and "martial law," are, legally speaking, monstrous fictions, existing only in the notions of ignorance or oppression. Under these rules, then, every official, from the highest to the lowest, civil or military, is bound to account for his acts in a civil court, if challenged; and not even the existence of a notorious civil war can relieve him of this responsibility. It is his duty to put down by force all resistance to lawful authority in every shape; but it is his duty to do nothing more. He commits a crime when he does any act of violence of which the direct object is not the suppression of unlawful resistance. If he pleads necessity, this necessity must be very strictly proved. It must be a real necessity, admitting of no alternative; and not an obvious expediency, admitting of opposite opinions. It will be no answer to a gross breach of law, that it was a very tempting opportunity of reaching a very desirable end. The true test of the act is, that it is the *sole*, and also the *direct* means of effecting a lawful end. The one justification is necessity, and the moment we admit an alternative which was not tried, or an indirectness in the conduct pursued, the necessity becomes a matter of opinion, and vanishes into air. If I kill a man who is in the act of killing me, I am clear. If I kill a man whom I detect in a conspiracy to kill me, I am guilty. It is neither the sole means nor the direct means of lawfully preserving my life. If a governor kills ten thousand men in open rebellion, it may be no more than his duty. If he kills one man in order to discourage the rebels, he commits a civil crime. It is neither the sole means, nor a direct means of suppressing rebellion.

The reason of this is obvious. A licence to commit a crime is so tremendous a condition that nothing can support it but sheer overwhelming palpable necessity. Civil society could not exist under less stringent protection. If I am attacked by a footpad in the road, I may lawfully kill him in self-defence; but I cannot lawfully kill a man whom I believe to be a footpad. If every man were left to judge who

are his dangerous enemies, and when a paramount necessity existed, civil-law would speedily pass into Lynch-law. Now the violation of law by rulers is far more dangerous and abhorrent to law than its violation by private men. The rules by which both cases are guided are precisely the same. If an Executive were left to decide who are the enemies of the State, and what necessity exists, political society would cease to be free. Cases, of course, may exist, both in civil and political crises, where a bold act of violence may be the salvation of numbers. A captain of a ship might kill a party of seamen whom he knew to be meditating mutiny; a ruler might arbitrarily arrest the proven leaders of a treasonable conspiracy; but in neither case can the law pronounce him guiltless of crime. It is quite in accordance with the wisdom of the law, that he who assumes of his own will these tremendous functions should lie under the constant check of entire liability to punishment. The law can deal only with generals, and not with extraordinary exceptions. They are cases for honourable pardon, and not for legal acquittal.

The only real instance of the exercise of martial law in these islands, for two centuries, is that of the Irish rebellion of 1798. In May of that year martial law was proclaimed by the Lord-Lieutenant of Ireland in the midst of a violent rebellion. An Act of Indemnity was then passed for all things committed under that proclamation. And in 1799 an Act was passed by the Irish Parliament, by which martial law was formally authorized. Now those Acts, and the cases under them, entirely justify our view. Of course it will not be lost sight of that an Act of Parliament can do any thing. No one for a moment contends that a statute may not make martial law or military justice, in every one of its meanings, lawful. The fact that an Act is passed to establish it in a distinct form is a sufficient proof that it is unlawful without it. Nor, again, would an Act of the expiring moments of the servile Irish Parliament be any authority for the repeal of an ancient common-law right, and a clause of the Petition of Right, nor are the saving clauses of royal prerogative inserted by Crown lawyers as mere surplusage in an Act very adequate proof of the prerogative itself. But the Irish statutes tell wholly for us. The Act of Indemnity declares that deeds had been done under the state of martial law which had no justification at law. It thus recognises our claim that a proclamation of martial law offers no immunity from civil liability, and that the suppression of a notorious rebellion may be a good defence, but is no bar to trial. But the Irish Act (39 Geo. III. c. 11) which authorises martial law, is perfectly explicit in its clauses. It defines what are the duties, powers, immunities, and liabilities of the military authorities; what is the scope of their jurisdiction; and what is their relation to civil courts. It gives tremendous powers, which may possibly have been warranted by the nature of that terrible crisis. As emphatically it implies that such powers would be wholly illegal without it. It saves the king's prerogative, as it calls it; but it explains this to mean (section 6) the power "to resort to the exercise of martial law against open enemies or traitors;" and again, "to suppress

treason and rebellion, and to do any act *warranted by law for that purpose.*" Exactly: throughout it contemplates a state of war and an open enemy in the field. It is concerned exclusively with the *suppression* of that rebellion, and not with its *punishment* when suppressed. It gives to the Executive tremendous powers, wholly unknown to the law, which it carefully limits and explains. For form's sake, it saves the prerogative; but it is plain that this prerogative was never supposed to include a power of suspending the law, or the statute itself would be superfluous. It states the powers of an Executive to be the suppression of rebellion by acts "*warranted by law.*" It admits the liability of the Executive for all such acts as exceed this limit. And now this statute is relied on to justify the assumption by Government of such unbounded powers under some general "*prerogative*" of the Crown, or the simple phrase of "*martial law*" in an old militia statute, and that at a time when a petty riot which had existed was totally suppressed, and order remained undisturbed!

And now let us turn to the cases under these Irish Acts. In the first place, there is the famous case of "*Wright v. Fitzgerald.*"* Martial law was in full vigour under this proclamation of 1798, when Mr. Wright was unjustly flogged by the Sheriff of Tipperary, Mr. Fitzgerald. The Act of Indemnity was in force, but the victim recovered a verdict against his assailant. The judge thus laid down the law: "*The jury were not to imagine that the legislature, by enabling magistrates to justify under the Indemnity Bill, had released them from the feelings of humanity, or permitted them wantonly to exercise power, even though it were to put down rebellion.*" They expected that in all cases there should be a grave and serious examination into the conduct of the supposed criminal, and every act should show a mind intent to discover guilt, not to inflict torture. By examination and trial he did not mean the sort of examination and trial which they were now engaged in, but such examination and trial the best the nature of the case and existing circumstances would allow of. * * * It is required that one should not exceed the necessity which gave him the power, and that he should show, in his justification, that he had used every possible means to ascertain the guilt which he had punished; *and, above all, that no deviation from the common principles of humanity should appear in his conduct.*"

The second case is that of Wolfe Tone, in 1799. The rebellion was in full activity, and the state of martial law in force, when the famous leader of the Irish insurrection was taken on board an enemy's ship of war, in an enemy's uniform. He was tried by a court-martial and sentenced to death. But the Court of King's Bench instantly granted a writ; and, by a noble exertion of the judicial authority, tore a notorious criminal from the illegal fangs of a military tribunal. It established that the most flagrant traitor was amenable to the law, and not to the sword; that martial law exists only in reference to operations in the field; that civil justice will confront and arrest the red weapon of the soldier on service, in defence of the meanest of those who are committed to its keeping.

* XXVII. State Trials, 65.

Now, what is it these two cases establish? The first shows us, that neither the existence of civil war, of martial law, or an Act of Indemnity, relieves the authorities from liability to account for their conduct, and the necessity of showing that it was governed by substantial justice. The second establishes that neither do these conditions at all affect the immunity of civilians from military courts. It is imagined that the law, as established against Governor Sabine, may apply in peace, but not under a declaration of martial law. The case of Wolfe Tone proves that no distinction of the kind exists. Martial law itself relates exclusively to operations of war, and therefore can do nothing to affect the rights of civilians to be tried in all cases by civil courts. Courts-martial, or rather mere military committees for the information of the officer in command, may possibly inquire if a prisoner be actually a prisoner of war. They may possibly sentence him to death, as they may any other prisoner. The only offence they can try is that of being a belligerent. The only punishment they can inflict, is the ordinary punishment on belligerents. But the story should be told only in the dramatic and stirring language of the original report.

Mr. Curran rushed before the Chief Justice (himself destined soon to fall a victim of the rebellion), and said—

“I do not pretend to say that Mr. Tone is not guilty of the charges of which he was accused; I presume the officers were honourable men: but it is stated in the affidavit, as a solemn fact, that Mr. Tone had no commission under His Majesty, and therefore *no court-martial could have cognizance of any crime imputed to him*, while the Court of King’s Bench sat in the capacity of the great criminal court of the land. In times when war is raging, when man is opposed to man in the field, courts-martial might be endured; but every law and authority is with me whilst I stand upon this sacred and immutable principle of the Constitution—that martial law and civil law are incompatible; and that the former must cease with the existence of the latter. This is not the time for arguing this momentous question. My client must appear in this court. He is cast for death this day. He may be ordered for execution while I address you. I call on the court to support the law. I move for a *habeas corpus* to be directed to the provost-marshal in the barracks of Dublin, and Major Sandys to bring up the body of Mr. Tone.” Lord Chief Justice Kilwarden—“Have a writ instantly prepared.” Mr. Curran—“My client may die whilst this writ is preparing.” Lord Chief Justice—“Mr. Sheriff proceed to the barracks and acquaint the provost-marshal that a writ is preparing to suspend Mr. Tone’s execution.” The sheriff reported that the officers refused compliance. Lord Chief Justice—“Mr. Sheriff, take the body of Tone into your custody. Take the provost-marshal and Mr. Sandys into custody, and show the order of this court to General Craig.”

So nobly did the judges of that day assert the supremacy of civil justice against military usurpation, even in the heat of the Irish rebellion. The very mention of that word at this moment must make us tenfold more anxious to insist that the sacred principles of civil justice suffer no diminution from us.

VOYAGE OF THE "PIONEER."—No. 6.

(Continued from page 256.)

SHORTLY after we had anchored, the wind suddenly flew round to the eastward, in the midst of a crash of thunder, blowing as hard a gale as before, and bringing the spray of the breakers. This came flying over us like showers of star-beams, all ablaze with the lightning, and was driven by the storm far astern of us, appearing like a train of meteors, lighting up the raging surface of the sea, until lost in the distance of darkness. It was an awful night, yet I felt that the worst was over, and that our danger was light compared with what we had passed through, and that the wind having shifted so as to bring the shoal ahead of us, there were now good hopes of saving the vessel.

The crew had behaved well all along, and had kept the deck day and night during our perilous run for the Sands, but now that there was nothing to do except the work of the pumps, they sank down one after another on the deck wearied and worn—

"To dream of the dangers,
They bravely had borne,"

and little cheery Tom fell asleep, singing his favourite hymn,

"I hear a voice when rough the waves,
Fear not, my child, upon the sea,
The Angel of my presence saves,
Each one who puts his trust in Me."

The gale blew its hardest during the first watch, with thunder and lightning such as I had not known, even in the gulf of Mexico, or on the west coast of Sumatra. The lightning was especially remarkable for the variety of its colours, and the length of its zig-zag chain over the entire heavens. The harder it blew, the more thankful we felt for the shelter of our breakwater of sand, which was so close to us that there was no drift for a sea to get up, and our two anchors held on without dragging.

As hour after hour of this wild night passed away, and the gale began to moderate in the middle watch, there was anxious longing for daylight, that we might look about us and see if we were near the entrance of any creek or river, for beyond the fact that we were off the sea face of the Sunderbunds, all else was uncertain.

Watching for break of day in a position of danger is a well known event in the life of many a seaman, and from the time of a certain remarkable shipwreck off the "Island of Melita," where four anchors were cast over, and they "wished for day" down to the present hour, no passage in a seaman's life is likely to be better remembered. In reading the record of that shipwreck, we are led to desire that as in that case of imminent peril, so in all others some one or more might be found on board trusting in Divine help; but while it is so much the

custom among English seamen to begin a voyage without asking God's blessing, and to end one without giving Him thanks, it seems too much to expect, or to hope that it should be so in these degenerate days.

As the day dawned the wind veered to the South, right fair for the shore, and we hove up the second anchor and got all ready to make sail as soon as we could see our way. At daylight we saw the tops of jungle trees, and a break in them which we took to be the mouth of a river, for which we presently steered, and after passing over a spot where the rollers were high, the last of them swept us clear of the shoal into smooth water.

As we neared the shore the gap widened, and we found it to be the entrance of a river, but what river there was no means of discovering, as there had been no observation since the day before making the Janggernaut Pagoda; and on the whole of this coast at the head of the Bay of Bengal there are no distinguishing land marks whatever to help mariners to ascertain their position. However, we cared little about this at the time; the great thing for us was *shelter*, and we felt that to be in any river whatever it might be, was to be safe; and although the shore is as desolate as any shore can be, there was nothing but light hearts on board, from a sense of danger left behind and done with. We entered the river just after sunset, and cast anchor in its sheltered waters with a feeling of thankfulness to God for our remarkable deliverance, not I hope to be forgotten, as the *Pioneer* now took her final leave of the great ocean, on which she had encountered so many perils, and from which she had had so singular an escape.

Here we had a quiet night, and a good sleep for all hands for the first time since leaving England, after a passage of five months, and no one on board except the commander troubled himself to think about where we were, or how far we might be from the port of our destination.

Next morning we tripped our anchor and stood up the river for four or five miles, until we came abreast of a creek on the port side leading to the westward; so here we dropped our anchor to explore.

I went away with the life boat, and after pulling a few miles up the creek to see the trending of its reaches so as to compare them with a chart of the "Sand Heads," which fortunately I had on board, I found the river we were in to be the "KAGGA." Therefore as soon as this was discovered, a boat was got ready to start for Calcutta to obtain assistance, in charge of the first officer with a picked crew.

The S.W. monsoon had set in strong after the gale, but there was no use waiting for better weather, and the boat was sent away the next morning with the chart, on which was marked the *Pioneer's* anchorage, and with instructions to make Westing whenever possible, so as to reach the Hoogley, and it was arranged to fire a rocket and burn a blue light on board every night at twelve o'clock.

The weather was so bad after the boat left us, that when the tenth day had come without our hearing anything, I had got uneasy and began to fear that the boat was lost, or that they had missed their

way in such difficult navigation as that of the "Sunderbund" rivers and creeks, which are like an interminable net work.

On this day all hands were placed under the engineer, and a start was made to try and get a paddle fitted on one side so that we might steam to the westward if no assistance should reach us.

On the eleventh day the engineer reported two boats pulling down the creek, and the second officer also said he saw the boats, and so certain were they, that the latter asked leave to take the jolly boat to meet them, and bring on board the letters.

This turned out to be a very singular optical delusion, resulting in part from an excited imagination—two pieces of drift wood were all that could be seen when the jolly boat got into the creek, and the men returned much sadder, if not wiser than when they started. When on the following day a steamer was actually seen coming towards the *Pioneer*, none of us on board, I expect, felt so much as the day before when the shout was heard "two boats coming down the creek," for there are some emotions too powerful ever to be repeated, as no doubt many have experienced, and this was an instance of the kind.

On the twelfth day (June 30th) just before dark, the sound of paddles was heard, and soon afterwards a steamer came in sight and sheered up alongside of us, bringing our boat's crew and a stock of fresh provisions, and more than all else our letters from home. We were indeed now restored again to the world, brought as it were to a sense of life.

We started under tow of this steamer at daylight the next morning for Calcutta, and nothing worthy of note occurred on the way, excepting our seeing an unusually large tiger swimming across a creek through which we were passing, most likely in chase of deer which are very abundant in these jungles, and on which the tigers chiefly feed.

After three days' detention in one of the rivers waiting for a more powerful steamer to tow us, we arrived at Calcutta on the 7th of July, and met with as much welcome and generous reception as we could have desired on the part of those interested in the vessel, who had given us up as lost.

W. C. P.

BUOYS AND BEACONS.

THE first question which naturally presents itself in the use of buoys or beacons is the purpose for which they are intended. The answer of course must be to render danger conspicuous. The next query then is,—why are they not made themselves as conspicuous as possible, and placed on the surface of the water, instead of being half, or most frequently more than that, below it, buried in it, and themselves of a form, which becomes less conspicuous from this circumstance. In our

estimation we do not know a subject which is more open to reform than that of the form of buoys, which implies their being readily distinguished in general. And yet the means of achieving this first of qualities are very well known. Why is the antiquated fashion of using half-sunken cask-shaped buoys (of the first class too) so religiously (we might say) adhered to, when the compact upright high floating buoy, known in these pages long ago, and found in some few favoured parts of our coast, why we say, is not this buoy which really fulfils its purpose entirely, and certainly in a manner superior to all others, why is not this employed generally? It is as capable of being painted as any other. It is as capable of carrying a beacon of any form, and more so perhaps than any other, and that beacon too in the shape of balls, tubes, triangles, etc., all which may be varied at pleasure in number and combination. Who that has strained his eyes and his patience in a nasty chopping sea with disappointment at the end of a long search, wet with seas or misty weather, in endeavouring to make out the buoy of some important shoal that defied all the scrutiny of the most practised eyes, and when that much desired buoy would bury himself in the wash of the sea and disclose his ugly form only when it was almost within hail. But this is a common occurrence and is (it appears) likely to continue so. We delight in making difficulties. Perhaps it is a part of our duty. But give us Herbert's buoys: they are honest and not afraid of being seen as the others are: they stand conspicuously out of the water instead of wallowing and concealing themselves in seas at a time when of all others, buoys are most wanted.

But our subject has run away with us, and here is Captain Bedford's plan of buoying the coast with the present abominably shaped system in which plan he adopts districts of coast or divisions, taking a centre for each: thus England is portioned into three divisions;—then these divisions have centres, head centres! to work from: thus of England the centres and limits of the divisions are,—

1st. The Mersey between the Mull of Galloway, and St. David's Head.

2nd. The Severn between St. David's Head and the Land's End.

3rd. The Thames between the Land's End and St. Abb's Head.

We gather also from the scheme before us that "all the General Outer Fairway of the navigation is proposed to be buoyed as *to* and *from* (we italicise for clearness) a district centre." We thus get the use of the centres, but all harbours, lochs, and estuaries, as *to* and *from* the principal port therein, such as *to* Stranraer in Loch Ryan;—then it follows we presume, that *to* and *from* these centres, the buoys marking the channels would be black on one hand and white on the other.

The laws proposed by Captain Bedford never to pass between two chequered buoys nor buoys of the same colour, excepting when either has a mark—and a mark on a buoy denoting a turning point may be very good—but we dislike colour and would have only black and white; for a red and white or black and white chequered buoy at a

distance under certain skies would look the same. Yet we do not object to an entire red buoy, and we consider also that a vertical stripe black and white would be far more effectual, that is conspicuous (for therein to us lies the first approach to effect), than any chequered buoy.

We confess that we are not friendly to the system of centres, for not only the places which are to be considered centres of the divisions or districts, but the very limits themselves of these districts, are not always to be remembered. And why encumber the seaman's mind with such matters when he has enough besides of channels, bearings, and lights to attend to—in addition to the buoys themselves to make out first if he can. In our opinion he would exclaim vigorously against them. We would rather proceed if we could on the broad ground of the *seafuce*, or that side of a shoal off a coast facing or presented to the sea and that facing the shore, each to be distinguished by black or white, or without or with beacons, or balls, triangles, etc., if such a system could be devised. But the principle of facing seaward or landward for shoals should be simple, and the centres are not so easily remembered because more numerous than seaface and landface everywhere. We are not here alluding to estuaries of course such as that of the Thames. But the whole subject in our estimation requires thorough revision, and we trust that should it soon arrive at that stage, the point of conspicuousness in any buoy may be placed at the head of the good qualities which it shall possess—and that we shall see no more of those miserable can buoys or double cones and barrels burying far more in the water than they shew out of it.

In corroboration of these views we find the following passage in “The report of the Committee of the Society for improving the condition of Merchant Seamen,” that we have received since the foregoing was committed to paper. Under the head of *Buoys*, the Committee observe in their appendix—“The best description of *buoys*, viz., those which float *upright* and *can be of considerable height*, should be adopted more generally, *as has been done*, with great advantage at Liverpool. We italicise the words that there may be no mistaking them. Will this recommendation ever meet with attention? We shall be both surprised and gratified if it does so far as to be carried out.

NAVIGATION AND LIGHTS ON THE COAST OF BURMAH.—AMHERST POINT AND JUNGLE FIRES.

Maulmain, March 5th, 1867.

Sir,—Some twenty years since, or more, you were so good as to publish some Notes and Remarks on the Coasts of Burmah, which I have reason to believe have been found useful by navigators. But as nobody thinks of looking into an “old Magazine” for such information, and as the light houses lately erected on these coasts have modified to

some extent the observations then made, you may think it worth while to revert to the subject again, just by way of a "refresher," although what is said now may have, in substance, been said before. Disclaiming the sort of mock modesty that begins by apologising for inability to do justice to the subject, and so forth, my claim to be heard is based on a life-long acquaintance with the Bay of Bengal, its coasts and rivers, winds and currents, on which subject I have been no stranger to the *Editor of the Nautical Magazine*! and I know no part of the world where a careful study of these essentials of navigation will better repay the mariner, and through him the ship owner. What follows has special reference to Maulmain. As for Rangoon, the directions may now be summed up in these few words:—"Run up to the Light Ship, and take a pilot or anchor." There is absolutely nothing in the way to prevent it, and both the tides and the swell are moderate, very moderate as compared with Maulmain.

The system of Lights on the coasts of Burmah is, or will be, when that on the "Krishna Shoal" (Barrague Point of old) is completed, as perfect as any part of the world, England not excepted. There are no dangers but what may be avoided by ordinary skill and prudence, *save one*, and that is on the coast, between Rangoon and Maulmain which no human contrivance can ever obviate. The *tides* here run with a velocity exceeding belief by a stranger, but never to be forgotten by those who have, like the writer, been once caught in them.

Premising that the Light on Double Island, about ten miles to the South of Amherst Point can be seen twenty miles off, a ship approaching Maulmain from the southward, may make in for the land, which is all mountainous, and to be seen afar off, anywhere to the northward of the Moscas Islands. Then coast along at about ten miles distance, or nearer at pleasure, except in passing the sands that lie about five miles off Hinzai Inlet. At this distance the Light House on Double Island will be readily made out, and having made it, if too late in the afternoon to get a pilot on board and *enter the river*, it will be best *not* to anchor; but keep under way for the night, with the Light on any bearing from N.E. to S.E.; or get into Calagook Harbour, for the tides run so strong even at Double Island, that they would test the best "ground tackle," there will be no difficulty in keeping within these bearings during the night, although the flood tide at some seasons runs much stronger than the ebb. At daylight, or earlier according to circumstances, close in to within five miles of the land, and proceed to the northward where the pilots will pick you up; if not, then, if it be flood tide you *must* anchor, say about five miles off, with the flag-staff on the Point bearing to the northward of E.N.E. North East is a safe and convenient bearing to anchor on, but during the S.W. monsoon, or from March to October, it is very rough riding at best. Since the pilots have been placed on the competitive system they are always out in search of ships, and the delays incurred previously in waiting for the pilot in turn for sometimes two or three days, do not occur now.

A ship coming to Maulmain from the Westward by the Prepario

Channel, has no business to go near the coast of Pegu at all, but should keep well off, say twenty or thirty miles, until past Barague Point, and then steer for Double Island; or, to make sure of not being set to the northward, steer for Calagook, until the Light House is seen. The soundings are not a sufficient guide for a stranger hereabouts. But should she get to the northward, in say ten fathoms, or if coming from Rangoon, the utmost vigilance will be required to prevent being set on the sands lying off this dangerous part of the coast, as the flood tide sets directly on the sands, and with a velocity, especially on the eastern half of the distance, that anchoring is the last, and almost a hopeless, resource. I speak from experience in this matter, having once rode out an April flood tide there with three anchors down, and although the ship was light, the tide rushed in at the hawse holes and inundated the deck; in fact she threatened to go down by the head; she was driving all the time and had she touched the ground would of course have been lost, with probably all hands. I recovered two of the anchors, and was glad to leave the other behind and escape on the ebb tide. The remembrance of those few terrible hours of that flood tide will last as long as I live, and I mention the circumstance because even one fact carries more weight with most people than generalities do.

By bearing in mind what has been above stated, the navigator will find the coasts of Burmah safe to approach by the Admiralty Chart, which by the way had formerly, by some mistake, placed a Light on Amherst Point, where there certainly used to be a lantern, but *no light*; in fact, a "Will-o-the-wisp," now abolished. But there is still a Blue Light, burnt hourly on the Point, which is useful for the coasting steamers. But sailing vessels should take no account of it, at least should not *seek* for it, for by doing so they may get into danger. It should also be abolished, for all the use it can be of to steamers is over, and is balanced by the danger it holds out to sailing ships that may be induced to seek for it knowing that it is there. Another thing peculiar to this coast is Jungle Fires, prevalent during the dry season, which were previously perplexing to strangers. But they cannot well be mistaken for a Coast Light, although they were often mistaken for the old lantern on the Point, even by coasters and steamers, and several of them came to grief thereby.

Our river is a very bad one, and it is to be regretted that little has been done for bettering it, although it might be considerably improved at little cost, but that too, will doubtless be done sometime hereafter.

J. H. MILLER.

[It is with much satisfaction that we recognize in the letter of Capt. J. H. Miller, the clear and seamanlike directions of our old correspondent, by whose valuable information, found in many of our earlier pages, his brother seamen have full often profited. It reaches to some twenty-five years ago. In our volume 1842, stands some highly important information at the time on his adopted port, that of Maulmain, and it is with pleasure we find him reverting to his subject and shewing those changes that mark its present condition. We assure

Capt. Miller that his remarks are no less useful now than they were at the period to which we have referred. We are glad to find he has not forgotten his old adopted work, in which we can assure him his name will be handed down to posterity, as one of those officers of his profession who have done it essential service by promoting the cause of navigation, and holding out to his brother seamen excellent nautical advice, and improving their charts, by doing which, he benefits his country, saves the lives of seamen, and does honour to his memory.—*Ed. N.M.*]

FUEL FOR STEAM SHIPS.

[THE economizing of fuel for the use of steamers on long voyages is yet a question of much importance, and all progress towards its solution a subject of much interest. We find the following remarks on the employment of petroleum for this purpose in a Canadian paper, where it is very well known large stores of it are to be found, and which we consider are worthy of preserving for future reference in our pages.]

SUCCESSFUL EXPERIMENTS ON PETROLEUM AS FUEL.

DURING the last twenty years, as steamers have constantly increased in number, and have been steadily taking the place of sailing vessels on coastwise and other short voyages, and to a great extent for the transportation of passengers and freight to and from Europe, most earnest efforts have been made by engineers and other scientific men to discover the best method of economizing fuel. For this purpose, propellers are superseding side-wheel steamers, and the merits of all kinds of boilers have been tested and discussed.

To the present Chief of the Bureau of Steam Engineering in the United States Navy, B. F. Isherwood, the commercial world owes much for very valuable information on this point. Quick of apprehension, clear of thought, prompt to act, he has kept a watchful eye upon all matters affecting steam navigation, and has demonstrated by experiment the value or worthlessness of hundreds of claims. That he has made some mistakes, is true, but that he has developed more facts in engineering than almost any other man now living, is also true.

But all the researches of talent and experiment have failed to so reduce the amount of fuel required as to enable steamers to make long voyages without frequently coaling, or to make them at all to distant parts of the globe, without first transporting coal by sailing vessels, to various points along the route, where the steamer can call and take it; and thus all commerce around Cape Horn, and the Cape of Good Hope, is practically left to slow sailing vessels. The difficulty is not so much in the expense of coal, although its increasing scarcity and

cost cause grave apprehension, as in the great bulk and tonage occupied. In fact, nearly one-half of the carrying capacity of European steamers, and more than that on longer voyages, is taken up by the fuel transported.

The high price of all vegetable and animal oils, of course, prevented any efforts to introduce them into use. But soon after the discovery of large amounts of petroleum in this and other countries, attention was called to its great calorific power, and constant efforts have been made to utilize it as a heat generator in steam boilers. It is generally agreed that the heating power of petroleum is about four times as great as that of anthracite coal, of equal weight and bulk, if both could be wholly burned, and all the heat utilized. But experiments have shown that the coal, after deducting ashes, cinder, dust and the gasses lost in smoke, only about one-half of the heat therein can be practically used; so that if any expedient can be devised whereby all the heating power of petroleum could be saved, a gain of some eight or ten to one would be effected.

With this view, experiments are now being made in the dockyards of England and France, also in the Navy Yard at New York, and by private individuals in various parts of this country. We have watched these experiments with great interest, but have refrained from expressing any opinion because in all the reports of the trials, both in Europe and here, the results have been unsatisfactory. The fires have been imperfect, have smoked and been dangerous and difficult to manage.

The difficulty which has so long troubled merchants and engineers, seems now in a fair way to be solved, and it has been demonstrated almost to a certainty, that another great discovery has been made, which will be of vast importance to the world, and create an entire revolution in the method of heating marine and locomotive boilers—a discovery which amazed us by its simplicity of action, and the great advantages it possesses over all the methods now in use for safety, economy, volume of heat, and tractability.

Last fall, Col. Henry R. Foote, of Tennessee, who commanded a Union regiment in the late war, patented an invention for burning petroleum in steam boilers, upon which he has been at work some two years, and on which he has spent many thousand dollars. Col. Foote associated with him Mr. J. H. Winsor, of Pennsylvania, and they came to Boston, and set up a locomotive boiler in a little building on Chardon street, and for several months ran an engine with this new fire. During this time they made the acquaintance of Stillman B. Allen, Esq., of this city, who is well known as having energy and determination, which rarely fail to accomplish whatever he undertakes, and he became a joint owner with them in the invention, and has entire charge of all the business arrangements of the concern. He called the attention of the Navy Department to the subject, and forwarded certificates from Alban C. Stimers, of New York, a well-known engineer of high standing; of George B. N. Tower, late chief engineer, U.S.N., and Chief of Marine Engineering Staff at Charleston, and of unquestioned ability; of Captain Anderson, of the Cunard steamer

Africa, and of Governor Andrew, Professor Rogers, and several engineers who had examined the fire on Chardon Street.

Mr. Isherwood at once ordered a board of three chief engineers to examine the apparatus. They did so, and reported most favourably, and recommended that it be at once placed on board some steamer in the Navy. An order was then issued to fit up the iron steamer Palos, a beautiful little gunboat of the fourth class, at the Navy Yard here, for full and complete experiments, and Alexander Henderson, Chief Engineer of this Navy Yard, an energetic, accomplished, and skilful officer, was appointed President of a Board for experiment, consisting of himself and Chief Engineers Moore, Baker, and Kellogg, and eight Assistant Engineers.

Their experiments are now in progress. Having heard very wonderful accounts of the success of several preliminary trials there, we made a visit to the yard a day or two since, went on board the Palos, and made a personal examination of the whole apparatus and all the machinery of the boat, which was in motion with a full head of steam.

The apparatus is simple and inexpensive, consisting of a small iron box or retort located in the place of the grate bars, and having burners all around it. Its bottom is kept hot by burners beneath. The oil is carried into it by a small iron pipe and vaporizes as soon as it enters. Steam is then introduced through a coil of iron pipe filled with filings and located over the burners, where it is intensely heated and decomposed, and its gases enter the retort, into which air is at the same time forced, and the whole forms a gas which escapes from some nine hundred burners, where it burns with a clear intense blue flame, completely filling the furnace and extending into or through the flues. The heat is very great. It emits no smoke, can be increased or diminished in a moment, or be entirely extinguished by turning a stop-cock.

The apparatus is very simple, and any part of it, if broken, can be repaired or made anew by any mechanic. No alteration of boilers is required. It will burn wherever coal will, and the fire can be run by any man of ordinary intelligence after an hour's instruction.

It dispenses with all coal heavers and requires but one man to every two or three fires, to keep them in perfect order. It is clean and convenient, and saves the time and trouble of taking in coal and disposing of ashes, and, there being no sulphur in the oil, as there always is in coal, the boilers and flues will be more durable, notwithstanding the greater intensity of the fire. But the great value of this invention, in steamers is the gain in space and tonnage. The amount of fuel required is only about one-seventh of the weight and bulk required of anthracite coal, and the inventor is satisfied that after perfecting his apparatus it will take less than one-tenth, leaving all the remainder for freight or passage room. If this fire succeeds, as we believe it must, it will enable ships to steam from sixty to one hundred days, and to visit ports in all parts of the world from which they are now excluded, while the direct gain will be immense. For instance, the Cunard

steamers take 1,200 tons of coal on every passage and burn about 1,000. Now, two hundred tons of petroleum, costing about the same as the coal, will do the work better, saving one thousand tons freight. This at eighteen dollars a ton would amount to thirty-six thousand dollars on each trip, and in the eight trips made in a year to nearly three hundred thousand dollars, to which must be added the extra expense of wages and food, of coalheavers, wear of machinery, and journals by coal dust, wharf room for coal, etc. The enormous saving which this method makes in freighting vessels is a consideration of first importance, and must cause its immediate introduction into nearly all steamers as soon as its utility becomes generally known. It is equally applicable to locomotives, an important desideratum in localities where wood and coal are scarce, as for illustration, upon the new Pacific Railroad, which, when completed, would require fuel trains in constant operation to keep wood and coal stations supplied; while, with this invention, the tender of a locomotive can carry a sufficient supply for three to five hundred miles.

There is another advantage of which we cannot now speak at length. On board the *Palos*, during the trials with screened anthracite, the highest number of revolutions they were able to give the propeller, with all the coal they could burn, was less than forty, while on a preliminary trial with Col. Foote's apparatus, she easily gave over fifty revolutions for several hours, and fully held her steam, thus showing that, with this fire, a boat can run from two to four knots faster than she can with wood or coal, and as the heat is equally distributed along the crown sheet and through the flues, but little if any "foaming" is caused. This must shorten the distance to Europe about two days, and a steamer's time from St. Louis or Cincinnati, to New Orleans and back, from three to six days, and save all wooding up along the route. We predict that the first line on the Mississippi which adopts this fire, will do the largest business, and as oil can float down Oil Creek, the Allegany, and the Ohio, it will be cheap in the West, and soon all steamers there must use it.

Our first question on the *Palos* was, "Is it safe?" But after examining the apparatus, we were fully convinced that, when properly managed, there is no more danger than from coal. The oil is to be carried in double iron tanks, the outer space of an inch or so filled with water, and stowed in separate iron compartments in remote parts of the ship, and having small pipes carrying overboard any gasses which may rise, while the oil itself is carried to the fires by a half-inch pipe. It seems almost impossible that an accident should occur except through gross carelessness. Mr. Stimers, who, in a written report to Mr. Allen, says, "Colonel Foote's process is the most philosophically correct one for burning any fuel I have ever known to be tried in a steam boiler," adds "I can see no difficulty in carrying petroleum safely in steamers. The only thing to be done is to stow it properly. I cannot see that more care need be employed for petroleum than for coal, but it must be of a different kind."

The working of this invention has been examined by many eminent

and practical men who have endorsed it in the strongest manner : indeed, the whole operation is so remarkably simple and free from complication, as to require but little explanation ; and the spectacle which presents itself, of the great furnaces of a steam vessel in full blast, and driving the engines at their full speed, with only two men sitting quietly on camp-stools in a clean fire-room, in comparative leisure, and increasing or diminishing heat by simply turning a faucet, with no coal, cinders, ashes, or rubbish about them is such an unusual one to those who have been accustomed to the dust, noise, and confusion of coal passers and firemen, the continual opening of furnace doors, and consequent deadening of fires, the exhaustive labour and number of men employed, that one sees at once, in this invention, an enormous stride forward in steam navigation.

We understand that, after the wharf trials are concluded, a trial at sea is expected to be made, for the purpose of subjecting the invention to the severest test possible. We shall watch the whole experiment with great interest, and will advise our readers of whatever we learn, either for or against it. Should any of them desire to learn more of the invention than the space of a newspaper article can give, we presume Mr. Allen will promptly answer all inquiries. Our thanks are due to him and to Col. Foote, and the naval officers and engineers on board the Palos, for courtesies, enabling us to witness all the details of working the machinery, and of the invention, on that ship.—*Boston Commercial Bulletin.*

REPORT OF THE COMMITTEE OF THE SOCIETY FOR IMPROVING THE CONDITION OF MERCHANT SEAMEN, ETC.*

OF all our institutions, that of the mercantile service afloat of this country, we will even venture to say, requires, more than any other, the most watchful care :—because its well-being, in all its details, is essential to the safety of our land. No institution, the produce of men's heads and hands is free from evil ; and that of our mercantile service has, *happily* we may say (for the correction of that evil must thereby follow) been so enormous and so glaring, that it has given rise to a self-constituted honorary committee, at the head of which is a British Admiral, that we trust will become a powerful means to eradicate it. This evil is really a many-headed monster, sapping the very foundations of our strength. We see in it the fangs of the serpent at every turn. The vices of avarice, injustice, tyranny, deception, might be shewn up in abundance from the mercantile service of this country, while the insurance office encourages those

* London : Harrison and Sons, 89, Pall Mall, 1867.

who prey on the lives of seamen and the loss of the crazy old craft which year after year go to their graves in the ocean. It is well, we repeat, that all this huge list of ill-doing should have gained its present condition to have produced a committee bent, and we hope effectually, on crushing its enormities. That they will entirely succeed we do not believe, for what law is there established, by Act of Parliament itself, that will not be broken as soon as made. But that much of it will be removed we think and hope to be more than probable. How often have we contributed to show up its deformities, and there is one in regard of the seaman's birthplace to which we find no attention has been given, that we again repeat it from our number for February last. It stands thus recorded on an authority in which we have entire confidence. After remarking that Bethnal Green has its Sewerage Commissioners and other Boards to look after its general welfare, but the forecables of merchant ships are beneath the notice of the Board of Trade, he observes :—

“ Not long since, a surgeon from the West Indies informed me that he was called to attend several cases of fever on board a steamer trading there. He found the patients lying in a close lower forecable, so badly lighted that he was compelled to examine them by lamplight, although a tropical sun was blazing on deck over head. As there was overpowering effluvia of night soil, he enquired the reason, and was informed that the water closets were placed in the after part of the forecable. When reporting the condition of the sick to the commander, he made the following remark : ‘ Were I to take the healthiest man in the town, and permit him to sleep for one night in this ship's forecable, he would assuredly rise with fever,—medical skill is useless under such circumstances,’ and he added, ‘ This is no uncommon case; and when it is known that the habits of seamen are not over cleanly, we need not be surprised at the result.’ ” May we wonder whether anything will ever be done to remove this monster evil arising from all the sources to which we have alluded. Yes, we may wonder and be not surprised at its endurance and continuance! for even the report before us does not allude to the state of things pointed out. But we shall have to refer to this report hereafter.

WHILE on this subject of mercantile shipping, we turn to a Parliamentary paper just published, being “ An Abstract of the Returns made to the Board of Trade during the year 1865, of the number of wrecks and casualties which occurred on the shores of the Channel Islands, on the shores of Her Majesty's possessions abroad, and to British ships at sea; and of casualties reported by Her Majesty's consuls during the same period, with a chart.” If there really be satisfaction in viewing a melancholy picture, here it is. The enquirer into statistics has here, to his assistance, the number of wrecks specified which may be attributed to all parts of the world frequented by British shipping.—British, did we say? we should have said

“supposed” (a more fitting name we may find hereafter), for how many may be attributed to that wretched scheme we have introduced into our ships of allowing two-thirds of the crew to be foreigners? How many, we say, may be attributed to that imperfect intercourse which must occasionally happen between English officers and foreigners, the former ordering, and neither understanding each other's language. How many are lost from this condition to which English ships have been reduced for the purpose of swelling the trade returns and making a *prodigious show*? Our mercantile commanders would perhaps be the best to form a good opinion of that number, and we ourselves may be able hereafter to form an opinion of the effects of that measure by the continually increasing scarcity of British seamen.

Satisfactory, however, as far as it goes, as this return may be, it is yet sadly deficient: some coasts give returns for even ten years, while others do so for only one year, indeed the register is acknowledged should “be taken only for what it is worth.” However, the beginning is made, and although much of the returns include foreign ships as well as English, there may be a kind of consolation that however large the number of the latter may be, two-thirds even of them are not English, although sailing under the British flag. An English ship may contain English cargo store, but two-thirds of her crew are foreign, and it may also be some consolation that of the 1258 lives lost as stated in this return, a few more perhaps than four hundred were really English seamen. However, the return, although most imperfect, has its uses, and we shall on many occasions hereafter have to refer to it.

RULES OF THE ROAD IN CLOSE CHANNELS.

THERE seems to be a somewhat too general impression that, since the repeal of the rule laid down in the 298th sec. of the Merchant Shipping Act, it is not incumbent on steamers, or other vessels navigating narrow channels, to keep the starboard side. To those who are still under this impression we commend the perusal of a judgement delivered in the Court of Admiralty, in a cause of collision, and reported in *Mitchell's Maritime Register* of last week. An action and cross action were brought by the screw steamer *St. Bede* against the steamer *Nile*, and by the *Nile* against the *St. Bede*, for damages alleged to have been sustained by reason of a collision in Limehouse Reach in January last. The case for the *St. Bede* was that, when the casualty occurred, she was proceeding up the Reach near the Middlesex shore, when the *Nile* was observed coming down about a point on her starboard bow, and distant about a quarter of a mile; that the *St. Bede* immediately ported, and as the *Nile* approached, the engines were stopped and reversed; but, nevertheless, the *Nile* came on, driving her port bow against the stem of the *St. Bede*, and doing considerable damage. The *Nile* pleaded

that, when the *St. Bede* was first seen, she was bearing a point and a half on the *Nile's* port bow, and was distant about half a mile; that the *Nile* at once ported, and kept her port helm, whereas the *St. Bede*, instead of porting, starboarded, and, notwithstanding that the *Nile* put her helm hard a-port, and stopped and reversed, she could not avert the collision that ensued, and which resulted in damage so serious, that the *Nile* was unable to pursue her voyage, and was compelled to return to London for repairs. The conflict of testimony in this case was very great, so much so that the Court found it difficult to put the case before the Elder Brethren in an intelligible shape. The learned Judge, however, arrived at the conclusion that there was truth in the statement that the *St. Bede*, after the vessels sighted each other, was for some time, at all events, under a starboard helm, and that to that circumstance was mainly, if not altogether, to be attributed the collision which ensued. But, inasmuch as it appeared that there was some reason to believe that the *St. Bede* starboarded in order to avoid a galiot that happened to be in the stream, the fact of starboarding would not have decided the case against the *St. Bede* but that the starboard helm appeared to have been continued so long as to take the *St. Bede* not only off the north shore, but south of the mid-line, where the collision unquestionably occurred. To this point his Lordship directed especial attention, and it proved to be the turning point in the whole case. "I think [said his Lordship] the evidence for the *Nile* proves, what I consider to be an important point for her, namely, that the collision did take place south of mid-river. If the collision did take place south of mid-river, then the *St. Bede*, from having been on the northern shore prosecuting her course up the river, must have got to the south by starboarding her helm." The Court found the *St. Bede* solely to blame for the collision on this ground, his Lordship distinctly stating that the leading fact in the case upon which the judgement rested was—"that the collision took place to the south of the mid-line, and there was no satisfactory explanation how the *St. Bede* ever got there, except improperly."

Here, then, we have a distinct announcement that, in the opinion of the Court of Admiralty, a vessel ascending the Thames is bound to keep to the north shore; and if she is passed to the southward of mid-river, and a collision occurs, the fact of her being in the wrong position makes her solely to blame, and puts her out of Court. In other words, the Court of Admiralty holds that it is the duty of steam-vessels, at least, navigating the Thames up and down, to keep to the starboard side, and that, if this duty be neglected, the vessel by whom it is disregarded becomes solely responsible in the event of a collision. It is well that shipmasters and other persons in charge of steamers should know this. The rules and bye-laws of the Thames Conservancy are not so explicit as they might be on the point. By a sort of mutual consent the generality of vessels going down the river keep to the south side, and coming up to the north, but there does not seem to be any distinct rule compelling them to do so. The 36th rule of the Conservancy directs that "every vessel shall, at all times, while passing

on the river, be navigated in a careful and proper manner, as well with regard to the safety of such vessel, as of other vessels passing and re-passing on the river." This direction, it will be seen, is too general, and something more explicit seems to be required in order to keep vessels in their proper position, and prevent them incurring the risk which has proved so unfortunate in the case of *St. Bede*. The effect of the judgement to which we have just called attention will be, no doubt, to make those who see it, or our remarks upon it, careful to keep their own side of the stream; but where it does not happen to meet the eye of a shipmaster or pilot, vessels may continue to be navigated under circumstances which may at any moment subject their owners to serious consequences, in the event of a collision. Seeing that the Court of Admiralty has taken so decided a view with respect to vessels keeping the starboard side, we cannot but think that it would be well for the Conservators to introduce a specific regulation on the subject, which would set the matter once for all at rest, and not leave those in charge of vessels to find out what their duty is at the close of a cause of collision in the Court of Admiralty.—*Mitchell's Maritime Register*.

SAN FRANCISCO.

"OUR readers may have observed in the late San Francisco papers, an account of the destruction of Rincon Rock, in San Francisco harbour, by means of powder explosions. The powder is simply laid on the rock in a tin canister, and exploded by means of a wire, thus blowing the rock into atoms. The experiments have been very successful, comparatively inexpensive, and have resulted in removing a dangerous obstruction to navigation. There are several places in our harbour where rocks exist, which can, no doubt, be destroyed by this process. The gentleman who has been engaged in removing Rincon Rock has offered to visit Honolulu and remove any harbour obstructions there may be here. The experiment is certainly worth a trial. Just off the point of the Esplanade is a troublesome rock, which should be removed, as it prevents large vessels from coming up to the wharf. Another lies at the point where the new steamboat wharf is to be extended to, which may possibly be blown up, and allow the extension of the pier in a straight line five hundred or six hundred feet further on. As our harbour is small, every fathom of space that can be rendered serviceable to shipping is so much gained, and all experiments with that end in view must meet public approbation."—*Sandwich Islands Paper*.

The process mentioned in the foregoing extract seems to be peculiar to the American engineers, and certainly beneath the attention of ours. A ridiculous attempt was made by us to remove a rock at the entrance of Plymouth Sound, about fifteen years ago, by blowing up an old

cylinder of powder, which produced no effect whatever on it. But the way that we go to work, and the way the Americans did at New York, as recorded in these pages now many years ago, are two distinct operations. Commend us to our American friends on occasions where patience and perseverance are required, rather than to the off-hand work of our clever engineers.

HONOLULU HARBOUR—*Sandwich Islands.*

THE prospect of the harbour of Honolulu being a point of call between Panama and China, for a new line of American steamers, has induced the authorities there to turn their attention towards preparing a landing pier with an appropriate depth of water, which seems likely to be effected by the following extract from a Sandwich Islands Paper.

"We understand that the Hawaiian Government will act with becoming liberality towards the new enterprise, and will immediately set to work to extend the wharf on the Esplanade so that a new pier may be in readiness by January next, or as early thereafter as is possible. It is now proposed to extend the present steamboat wharf south on a line with its present front, say one hundred and fifty feet, making a wharf of two hundred and seventy feet for the steamers to lie at. The China steamers are three hundred and forty feet in length, but, as they remain in port only a day or so on each stoppage, this wharf will amply accommodate them. The depth of water alongside varies from twenty to twenty-four feet, but it will be dredged to a uniform depth of twenty-four feet. As this wharf lies at the head of the channel, the steamer will reach it without the necessity of turning around, and, when ready to leave, has simply to cast off the bow line and head out to sea.

"The bar at low water has twenty-one feet, and at full tide twenty-three to twenty-four feet. It is stated that the steamers will draw, when fully loaded, only twenty-one feet. Excepting in the event of southerly storms, which seldom occur, there can be no difficulty in the ships entering and leaving in any ordinary half-tides. The bar and channel are very smooth in all weather, except during southerly storms, when the swell is heavy, as is usual at all entrances when exposed to the wind. It is understood that efforts will be made to deepen the channel as soon as arrangements can be perfected."

NEW BOOKS.

MADAGASCAR REVISITED: *describing the events of a new reign, and the Revolution which followed, etc., etc.* By Rev. W. Ellis, author of *Polynesian Researches, etc., with illustrations.**

Considering the very important progress, which this work describes, in the particulars of missionary labours, the patronage of Her Majesty is most worthily extended to it. And we hail with satisfaction the very important fact, that, such labour by its own fruits mainly, has even progressed through a revolution in Madagascar; and is keeping its onward course under the protection of a new government, which has succeeded that by which it was even permitted and encouraged. It is no less remarkable too, that the revolution, which Mr. Ellis describes, arose from habits in the king that the Christian missionary did not fail to condemn, and that the real benefits of Gospel teaching were so evident, that the heads of the people, in drawing up the agreement which was to regulate the government of the island on the revolution being completed, declared, that "Her Majesty the Queen of Madagascar, from her friendship for Her Britannic Majesty, promises to grant full religious liberty to all her subjects." This great boon was originally granted by Radama the Second, and which was the occasion of Mr. Ellis revisiting the island. The present queen, his successor, has well followed it up; and it is a high satisfaction to the Christian reader to follow the narrative of Mr. Ellis in reference to the great progress of Christianity in that important island.

We shall find some opportunities hereafter of returning to this interesting work, and shall have something to say as to the sudden occurrence of the revolution:—one, which we consider that proves there is much good sense after all among the leading people and nobles of the island, considering the few steps by which they are removed from a state of barbarism. A bad law, which the king desired to carry out, led to much disapproval, and even to a remonstrance on the part of the higher classes, who fortunately had with them the commander-in-chief of the army. Thus the revolution was resolved on before the king had been a few months crowned; a determination encouraged by his unfortunate weakness for strong liquors, although he was always an enemy to bloodshed, and the ordeal of the tangena.

How that revolution was effected, Mr. Ellis here informs us. Still he had had the great satisfaction of seeing the spread of the Gospel by means even of native preachers, and an unbroken repetition of the observance of Sunday, in a most satisfactory way, at various places in the neighbourhood of the capital Antananarino. But on one of these Sundays, he says, "The sun rose, the next day, upon a scene very different from those which Sunday mornings in Antananarino had for some time presented. A few women met together early in one or two

* London: JOHN MURRAY, Albemarle Street, 1867.

chapels for prayer; but the men were in the city. To have been absent would have excited suspicion, and rendered such absence perilous.

"A number of the menamaso (king's advisers) had sought shelter with the king; and the nobles and heads of the people sent to demand that these should be delivered up and put to death. The king's messengers with the royal banner in charge of four men soon afterwards came to the residence of the prime minister, where the leaders of the movement were assembled, with the king's answer refusing to give them up. Another demand was then sent to the king, backed by the augmentation of the troops in the neighbourhood of the palace, which was now surrounded, and every entrance guarded by the troops and their adherents.

"We did not deem it prudent to go out, but met together in the house, to call upon God in prayer. More than once the royal banner was seen by us, being carried towards the enclosed courtyard of the minister which overlooked the plain, now filled with armed men; and this could have presented no hopeful spectacle to the messengers of the king. Parties of officers and men were repeatedly seen to leave the place and proceed towards the palace. The keepers of the idols, also, went and offered to bring out the idols before the people, but the minister told them to keep the idols at home, that they did not want them. Messages were brought to us from time to time throughout the day. At length, after repeated demands for the menamaso on the one part, and refusal to deliver them up on the other, and threats of forcibly entering the palace gates, and preparations for assault and resistance, we heard that the king had agreed to deliver up the menamaso, on condition that their lives should be spared; and that the nobles required that they should be deprived of all honours and emoluments and be banished in chains for life.

"This was a compromise with which it did not seem likely either party would be satisfied; but there was not much cause for fear of conflict now. A little patience appeared to be all that the nobles required to secure their object. The king and his companions though holding the palace, were in reality prisoners. There were not more than five hundred of the king's guard, and their resistance to the thousands of their comrades was very doubtful. There was but little ammunition in the palace, while the minister and his brother the commander of the forces, had charge of the magazines. The disposition of the citizens, though some were loyal to the king, was not to be relied upon, under the existing state of feeling to support any movement which Radama might now attempt to resist the force arrayed against him. * * * * *

"We heard during Monday forenoon, that after every effort to save his friends, the king had agreed to their degradation, the deprivation of all their property, and banishment in chains for life, with this only condition in their favour, that their lives should be spared. It was also added that they were to be delivered up that day. The number of slaves passing across the plain, with rafters, posts, timbers, floors,

doors, windows of houses, bedsteads, tables, and other articles of furniture, were evidences of the demolition and plunder of their dwellings. Soon after noon we heard that the menamaso, who had been surrendered to the nobles by the king, were about to be led to Zoma, the large market place to the north, to have the irons fixed on their persons, and in a short time a few soldiers preceding them, entered the broad path on the western side of Andohalo.

"The prisoners who were nearly stripped of their clothing, walked two abreast dejected and silent between the soldiers. Their eyes were bent on the ground, and they scarcely appeared to notice any object, or the crowds of spectators by the sides of the road, along which they passed. The day had become overcast with clouds, and it rained at the time. The water running off their bare heads, and unclothed persons, added to the sadness of the spectacle. * * *

"Instead of being put in irons, these men all fell under the spear of the executioner that same evening. * * *

"Thirty-one of the menamaso, and officers of Radama, were sentenced to die, ten were killed on the first day, fifteen on the day they were given up by the king, two were afterwards captured in the South, two subsequently cast themselves on the sovereign's clemency, and four escaped. * * *

"The evil advisers of the king, the authors of all the bad counsel which had led him astray; and as it was said, were fast conducting the country to ruin, had been removed, never to return. The great body of the people thought that blood enough had been shed, and that no more lives would be sacrificed; and concluding, that, as the purpose of removing the evil advisers of the king was now accomplished, they supposed that the business to which the king and the nobles would now apply themselves, would be to arrange such principles, and employ such agency of government, as should be more satisfactory to the several bodies of the people, and more beneficial to the country at large."

However reasonable all this might have been, we speedily find matters totally different. We are told that—"Some short time after sunset, on the same eventful day, two high officers from amongst the nobles went to the king within the precincts of the palace and desired an interview. His majesty sent word, that, it was too late; and that he would see them in the morning. About midnight they repeated their visit, and their request, when the king sent word that he was in bed, and could not see them until the morning. Soon after cock crow on the morning of the 12th May, 1863, these two officers went, as it was reported, with a number of soldiers, and four or five other men, to the house in which the king had passed the night, when one of them, a carpenter, forced an entrance, and they then proceeded to take the king."

"The queen, who was in the room, endeavoured to protect Radama by placing herself between him and the intruders, earnestly imploring them to depose him if they wished to do so, but not to take his life. All parties who were at all likely to know, whether Radama's enemies

or friends, and how much soever in other respects their accounts might differ, concurred in testifying to the great and unremitted endeavours of the queen to protect the person and save the life of the king, until at length she was forcibly removed. When they then proceeded to seize the king, he is reported to have said, 'Do not injure me, my person is sacred. God will call you to account.' To which those who were about to take him replied, 'We do not know that; but we know that you have injured the kingdom.' I also heard, that, when they seized him, before the mantle was cast over his head, and the girdle passed around his neck, he exclaimed, 'I have never shed blood.' No answer was returned, and the herculean arms purposely engaged for the deed tightened the twisted band, which stifled for ever all utterance; and after a few struggles, a lifeless corpse was all that remained of the humane young ruler, whose accession to the throne had been hailed as the light of morning by the different races of his own country, —to whom the sovereigns of England and France had despatched letters of congratulation and presents, and had sent their representatives to his recent coronation. So perished within the precincts of his own palace, and chiefly by those who had been instrumental in placing him on the throne, the Second Radama, king of Madagascar. * * *

"The body of the king remained in the house in which he had been put to death until midnight, when, about eleven o'clock, it was carried forth in darkness and silence along that same broad road, over which attended by representatives of the sovereigns of civilized Europe, and surrounded by gazing and exultant thousands, under the clear and brilliant light of noon, he had passed to receive the homage and fealty of the nation, on assuming the crown of Madagascar. Now the melancholy procession pursued its way silently, and as it were clandestinely, to the royal village of Ifasy, about six miles to the north of the Capital, where the body was interred within the court of the Government House, and a small thatched building was erected over his tomb."

Thus terminated the reign of Radama the Second, which had been marked by a happy freedom from the numerous dreadful executions of a blood-thirsty queen, a general permission for the exercise of religion, in which our missionaries had wonderfully prospered. A proclamation immediately followed, nominating Rasoharina should be his successor, as queen, provided that she subscribed to certain articles of which the first was, "The Sovereign shall not drink spirituous liquors,"—a habit which had done its part in sealing the fate of her predecessor. Mr. Ellis's narrative embraces so much important information concerning the progress of Madagascar that it cannot fail in attracting numerous readers.

The reader of the "Nautical" will no doubt remember some interesting particulars we gave of the journey from the coast to the Capital in our volumes of 1862 and 1863, with some remarks on the characters of the leading men of the Government as well as the nature of the country, on the occasion of a visit to be present at the coronation of the late king Radama the Second.

Nautical Notices.

[Communications for the Editor of the *Nautical Magazine* to be addressed to him at 31, Poultry.]

PARTICULARS OF LIGHTS RECENTLY ESTABLISHED.

(Continued from page 290.)

Name.	Place.	Position.	F. or R.	Ht. in Ft.	Dist seen Mls	[Remarks, &c. Bearings Magnetic.]
21. Pt. Lonsdale	Australia	S. Coast	F.	...	10	Est. 25th Feb. 1867, appears <i>green</i> seen between N. b. W. $\frac{1}{2}$ W. and N.W. $\frac{1}{2}$ W. and <i>red</i> between N. W $\frac{1}{2}$ W. and W. b. S. See note (a.)
22. Spezzia	Harb. Italy	West Coast	F.	26	9	Est. 20th April, 1867, Extremity of pier now constructing.
Castello de Plana	G. Valencia	39° 58' 7 N. 0° 0' 3 E.	F.	26	9	Est. 10th February, 1867.
Berdiansk	Sea of Azov	Replaced by two lights on S.E. & N.W. Extreme of Breakwater	F.	17	...	Est. 1st October, 1866, Red.
			F.	17	...	Ditto " " Green.
23. Buoys on Irish Coast	...	...	...	...	...	See note (b.)
24. Coast of Sweden	...	...	...	...	...	Ditto (c.)
25. Pater Noster Rocks	Swedish Coast	57° 53' 7 N. 11° 28' 5 E.	R.	...	...	To be Est. during present year. Also a flash alternating with an interval of darkness—length of it not stated.
Off Stockholm Skären	Kattegat Entrance	59° 35' N. 19° 45' E.	...	...	...	Ditto From the Light vessel the Svenskar rock will bear W.N.W.
Orskar Understen Svartklubb Soderarm Gottland	Entrance to Gulf of Bothnia	...	...	...	...	The Lighthouses will be painted with two horizontal <i>red</i> belts.
	...	...	...	...	...	See note (d.)
26. Owers Buoy Spithead	Boulder Wreck buoy	...	...	...	...	See note (e.) See note (f.)
27. Georgetown Timballier Bay Light	...	...	...	...	...	To be Est. 1st May, 1867. To be Discontinued, Light apparatus, &c., being destroyed by a storm.
28. Port Natal	S. Africa	29° 52' 8 S. 31° 3' 6 E.	R.	...	...	See former notice. In lieu of former notice, No. 60, p. 65, last vol: See note (g.)

F. Fixed. Ff. Fixed and Flashing. R. Revolving. I. Intermitting. Est. Established.

(a.) By referring to the chart it will be seen that the N.W. $\frac{1}{2}$ W. line passes near the Lonsdale and Lightning rocks, and navigators are therefore cautioned to be on their guard before the colours begin to change, as the blending of the red and green lights will indicate close vicinity to the line which passes from the lighthouse over these dangers.

Variation 8° 20' E. in 1867.

(b.) **ADDITIONAL LIGHTS AND SEAMARKS.**—The Swedish Government has given Notice, that during the present and next year (1867-8) the following lights (exhibited from lighthouses now in the course of construction) and beacons will be established on the Swedish coast:—

Alternating Light on Wäderöbod.—A light will be exhibited on Wäderöbod, Wäder islands, Bohus bay, on or about the 1st day of September, 1867.

The light will be an *alternating red and white* light.

The illuminating apparatus will be dioptric or by lenses.

The position of the lighthouse, as given, is in lat. $58^{\circ} 32\frac{1}{2}'$ N., long. $11^{\circ} 2\frac{1}{2}'$ East of Greenwich.

Fixed Light on Faludden, Gottland.—In or about the month of October, 1867, a light will be exhibited on Faludden, on the south-east coast of Gottland.

The light will be a *fixed red* light.

The illuminating apparatus will be dioptric or by lenses.

The position, as given, is in lat. $56^{\circ} 59\frac{1}{2}'$ N., long. $18^{\circ} 25\frac{1}{2}'$ East of Greenwich.

Lights at Bokö Sund, Ledskar, and Femerö.—In or about the month of October, 1867, the following lights will be established in the interior fairway between Stockholm and Bräcken; viz.,

Bokö Sund, in lat. $58^{\circ} 51'$ N., long. $17^{\circ} 36\frac{1}{2}'$ East of Greenwich.

Ledskar, in lat. $58^{\circ} 42'$ N., long. $17^{\circ} 14'$ East of Greenwich.

Femerö, in lat. $58^{\circ} 39'$ N., long. $17^{\circ} 7'$ East of Greenwich.

Alen Beacon. A pole beacon will be erected on the Alen rock, in lat. $58^{\circ} 32\frac{1}{2}'$ N., long. $17^{\circ} 2\frac{1}{2}'$ East of Greenwich.

The lights will not be visible far to seaward, as they, with the beacon, are intended for the guidance of vessels proceeding along the coast inside the rocks.

Rute Missloper. A pile of stones will be built on this rock in lat. $57^{\circ} 46\frac{1}{2}'$ N., long. $19^{\circ} 7'$ East of Greenwich, having a red belt in the middle.

(c.) **IRELAND—EAST COAST.—ALTERATION OF BUOYS BETWEEN THE KISH AND TUSCAR LIGHTS.**—The Corporation of the Port of Dublin has given Notice, that on or about the 15th day of August, 1867, the following alterations will be made in the Buoyage of the Sand banks along the East Coast of Ireland, between the Kish and Tuscar Lights, viz.,—

Kish Bank.—*North Kish Buoy* will be changed from a can to a conical buoy, coloured *black*, surmounted by a staff and ball, and lettered “Kish Bank, No. 1.”

Middle Kish Buoy.—An additional can buoy, coloured *black*, and lettered “Kish Bank, No. 2,” will be placed midway between the north and south buoys of that bank.

South Kish Buoy will be changed from a can to a conical buoy, coloured *black*, and lettered “Kish Bank, No. 3.”

Codling Bank Buoy will be moved about two miles N. by W. $\frac{3}{4}$ W. of its present position, and changed to a can buoy, coloured *black and white*, in vertical stripes, instead of a black conical buoy, surmounted by a staff and ball as at present.

India Bank Buoy will be changed to a conical buoy, coloured *black and white* in horizontal bands, instead of a black can buoy as at present.

Arklow Bank.—*North Arklow Buoy* will be coloured *red*, surmounted by a staff and ball, and lettered “Arklow Bank, No. 1,” instead of black and white stripes, with staff and ball, as at present.

Intermediate Buoys.—Three can buoys coloured *red* will be placed at

equal distances from each other, between the North and South buoys of this bank, and marked respectively "Arklow Bank, No. 2," "Arklow Bank, No. 3," and "Arklow Bank, No. 4," instead of the two can buoys striped black and white as at present.

South Arklow Buoy will be a conical buoy, coloured *red*, and lettered "Arklow Bank, No. 5," instead of black and white stripes as at present.

Blackwater Bank.—*North Blackwater Buoy* will be changed to a black conical buoy, surmounted by a staff and ball, and lettered "Blackwater, No. 1," instead of a black can buoy as at present.

Intermediate Buoys.—The two intermediate buoys will be changed to can buoys, coloured *black*, and marked respectively "Blackwater, No. 2," and "Blackwater, No. 3," instead of conical buoys coloured black as at present.

South Blackwater Buoy will be changed to a conical buoy, coloured *black*, and lettered "Blackwater, No. 4," instead of a can buoy as at present.

Long Bank.—*North Long Bank Buoy* will be conical with staff and ball, coloured *red*, and lettered "Long Bank, No. 1," instead of a black conical buoy as at present.

Middle Buoy.—An additional *red* can buoy will be placed equidistant from the North and South buoys, and lettered "Long Bank, No. 2."

South Long Bank Buoy will be changed to a *red* conical buoy without staff and ball, and lettered "Long Bank, No. 3," instead of the present black conical buoy surmounted with staff and ball.

(d.) *Fishing Lights on Gottland.*—Permission has been granted for the fishing stations on the island of Gottland to exhibit lights for the guidance of fishing vessels, on condition that two such lights placed at a distance of from 80 to 100 feet from each other, bearing North and South, and both at the same height above the level of the sea, shall be kept burning at the same time.

In connection with the foregoing, the Swedish Government notifies that—According to the regulations now in force, the Swedish light vessels are every year placed out at such times as danger from ice shall have ceased and taken in again when their security is threatened from the same, and that whenever the stationing or removing takes place, or the exhibition of a new light, information thereof will be given.

(e.) The Corporation of the Trinity House, London, has given Notice, that a *black spiral buoy* marked *Boulder* has been placed on the south-western edge of the Boulder bank, Owers sand in 10 fathoms water at low springs, with the following bearings and distances:—

Medmery barn in a line with Chichester spire N.E. by N.

Nab light vessel N.W. $\frac{3}{4}$ W., 6 $\frac{1}{2}$ miles.

Owers light vessel S.E. $\frac{1}{4}$ E., 6 $\frac{1}{2}$ miles.

(f.) A *green* can buoy, with the word *Wreck* painted on it, has been placed on the west side of a wreck, that appears 3 feet above water at low springs and lies 4 cables N. by E. $\frac{1}{2}$ E. from the Horse fort, on the western edge of the Horse sand, Spithead.

The buoy is moored in 2 $\frac{1}{2}$ fathoms water.

Variation 21° Westerly in 1867.

(g.) *Directions.*—The light on Cape Natal not being visible from the Aliwal shoal, care must be taken on making for Port Natal from the south-west not to approach the shore nearer than 4 miles, or to a less depth of water than 40 fathoms, until the light is well made out from the deck, when in standing in it may be brought to bear N.E. by E., this will lead outside all known dangers while to the south of Umlazi river (9 $\frac{1}{2}$ miles from the lighthouse); but when to the northward of the Umlazi

river the light must be brought to bear more to the northward, keeping a long mile from the land. When the light bears W.N.W., haul in to the northward for the anchorage, anchoring in $8\frac{1}{2}$ to 10 fathoms water, with the light bearing S.W. or S.W. $\frac{1}{2}$ S. distant one mile.

Variation 27° West in 1867.

NEW ZEALAND—NORTH ISLAND.—HOKIANGA BAR. The Harbour-master at Hokianga has given Notice, that the *bar* at the entrance of that river has *shifted* since the last survey, and that where the Admiralty Chart shows a depth of four fathoms water, a vessel struck drawing ten feet water. Mariners are, therefore, cautioned of the danger attending the navigation of that port without a pilot, or until further information has been received.

THE JAMAICA TRIALS.

WE alluded in our last to the condemnation by the Lord Chief Justice of the extreme illegality of the proceedings lately carried on in Jamaica on account of the *so called* rebellion. We find the following relating to them in the *Daily News*, and we have learned with regret since that the Grand Jury itself was not without a taint:—The Charge of the Lord Chief Justice of England to the Grand Jury at the Central Criminal Court in the case of the “Queen against Nelson and Brand” has just been published (at Ridgway’s), edited by Mr. Frederick Cockburn, of the Crown Office. The report has been prepared from the shorthand writer’s notes taken at the trial, and has been revised and corrected by the Lord Chief Justice himself, with the addition of legal and historical notes. It will be remembered that the Grand Jury on ignoring the indictment made a formal presentment strongly recommending that Martial Law should be more clearly defined by legislative enactment. The Lord Chief Justice could not directly endorse this suggestion consistently with the opinions he had expressed in his charge; but he is led by it to make some very decisive remarks on the necessity of settling the whole subject of Martial Law by legislation. He observes:

“I am reluctant to take leave of the subject * * * without protesting, so far as in me lies, and with whatever of weight and authority belongs to the office I have the honour to hold, against the exercise of martial law in the form in which it has lately been put in force. Thrice in little more than half a century—to say nothing of the horrors perpetrated in putting down the insurrection in Jamaica in 1760—in Ireland, in Demerara, in Jamaica, has martial law been carried into execution under circumstances of the most painful character. A man must be dead to all sentiments of humanity—must have banished mercy from the catalogue of human virtues—who can read the history of the Irish rebellion at the close of the last century, the history of the slave insurrection in Demerara in 1823, and of the punishments then inflicted under martial law, as detailed in Mr. Martin’s history of the colonies, under the head of British Guiana, or

the account of the executions and scourgings after the recent outbreak in Jamaica, as shown by the report of the royal commissioners, without shuddering to think what human nature is capable of, when, stimulated by the fierce passions engendered by recent conflict, or by the sense of present, or recollection of past, fear, vengeance is let loose in the shape of martial law, to be exercised by a dominant class on an inferior and despised race."

Having reviewed the circumstances of the outbreak in Jamaica, pointing out that the insurrection was put down in a single day, and that after that had been done 1,000 persons suffered either death or torture, he proceeds :

"Assuming the legality of what was thus done under martial law—as to which I purposely abstain from expressing any opinion, lest any further judicial proceedings should take place—reserving to myself in such an event the exercise of a free and unfettered judgment on future discussion—I advert to the events in Jamaica only as showing the necessity for legislation if martial law is ever again to be put in force. Assuming, in like manner, that credit is to be given to the governor and the military authorities for perfect integrity of purpose in declaring and continuing martial law, and for having been actuated in so doing by no other motive than an honest desire to do what was best for the safety of the island, it seems to me that, the more the honesty of their conduct is insisted on, the more important it becomes to place restraints on the exercise of so despotic and dangerous a power, lest sudden panic, or undue fear, or unreflecting zeal should again lead to its immoderate use, and to the unnecessary sacrifice of human life, or infliction of human suffering. And the fact that among the educated classes of this highly civilized community persons can be found to uphold and applaud such proceedings—though I believe very few persons who do so have taken the trouble to read the report of the commissioners, or the evidence taken by them, or to make themselves acquainted with the facts—seems to me to render the necessity for legislation to prevent such barbarities in future only the more apparent. But of still greater importance is it that, if martial law is to be put in force, rules should be fixed for the procedure to be followed on trials under it. Above all, that where a case turns upon circumstantial evidence, time and opportunity shall be afforded to the accused to meet the charge.

Speaking of Gordon's trial, he says :—"No one, I think, who has the faintest idea of what the administration of justice involves could deem the proceedings on this trial consistent with justice, or, to use a homely phrase, with that fair play which is the right of the commonest criminal. All I can say is, that if, on martial law being proclaimed, a man can lawfully be thus tried, condemned, and sacrificed, such a state of things is a scandal and a reproach to the institutions of this great and free country ; and as a minister of justice, profoundly imbued with a sense of what is due to the first and greatest of earthly obligations, I enter my solemn and emphatic protest against the lives of men being thus dealt with in the time to come."

THE ADMIRALTY AND GREENWICH HOSPITAL.

WE find the following in the *Hants Telegraph*, all of which would be set aside by the adoption of the course proposed in this number.—The decision of the Admiralty with respect to Greenwich Hospital has at length been communicated to the Seamen's Hospital Society, and the verdict is given in favour of Queen Mary's quarter. The arbitrators, however, express the opinion that this quarter cannot be made available for the reception of patients without considerable expense; and there is a deficiency of officers' quarters, and that Queen Anne's wing has great advantages in that respect, as well as in its close proximity to the river. The senior medical officers of the Seamen's Hospital Society have been recently called upon by their committee for the expression of an opinion as to the respective merits of the two wings. Dr. Barnes and Dr. Stephen Ward, the physicians, forwarded written statements in favour of Queen Mary's quarter, subject to the important condition that the necessary and expensive alterations above-mentioned can be carried out. But Mr. Busk, F.R.S., consulting surgeon, and Mr. Rooke, the surgeon, have given decided opinions in favour of Queen Anne's wing, the former emphatically declaring that the *entresol* of Queen Mary's quarter is useless, and that the kitchen and bath accommodation are so large as to indicate an excessive and very wasteful expenditure of income. With a knowledge of these very conflicting opinions the sole conclusion to be drawn is that after a large outlay the wards of Queen Mary's quarter might be made habitable, but that financial difficulties, the absence of a river frontage, and the possession of immense and cumbrous kitchen ranges will so cripple the energies of the Seamen's Hospital Society as to render Lord Derby's liberal concession to the sick seamen in the mercantile marine all but valueless.

COLLISION WITH AN ICEBERG.

THE *Eastward Ho*, from New York, which arrived on Saturday, met with a most serious misfortune on her passage, of such a nature that it seems almost incredible that the vessel with her entire crew were not lost, leaving no record of their fate. The ship left New York on the 17th of October, with a cargo of general merchandize, for this port. The usual gales incidental to the season were met with in the high latitudes, but nothing of serious moment occurred until when off the Cape of Good Hope, on the 4th of January, in latitude 46° 30' S. The vessel was under single-reefed topsails, whole courses set, and spanker, and bowling along before a strong gale at eleven knots per hour. At half-past 9 p.m., suddenly an island of ice, 200ft. high, was discovered right ahead, close aboard; the helm was promptly put down and her headway partially deadened, but there was no room to clear the danger, and with a terrific crash her bows struck against the floating mass, completely driving in the fore part of the vessel. The sheer-rail was

carried away as far as the foremast on both sides; knight-heads, timber-heads, and bitts, together with the stem and forefoot, ground into splinters; the spar deck started from under the plank sheer eighteen inches for twenty feet around each bow, and the port bow stove in to the waterline. The bowsprit and foremast, with everything attached, went over the side, together with the maintop gallant-mast and head of the maintopmast, which in its descent passed through the maintop-sail and main course, there being nothing in the helpless ship but the spanker and mizentopsail; it was blowing a violent squall at the time, the barometer indicating a change. The shock is described as resembling a heavy clap of thunder, and the terror that must have possessed every mind may be more easily conceived than described. Such means as were at hand were promptly brought into requisition, and, as all worked with a will, spare sails were quickly got over the bows to stop the water from getting below. Fortunately, the gale abated in a few hours; the repairs were more nicely carried out, juremasts got up, and the ship kept $1^{\circ} 20'$ further north, and kept on her course for Sydney. On February 18th, in lat. $43^{\circ} 30'$ S., long. 122° E., at 2 a.m., she was found, by the aid of a bright moonlight, to be among the ice islands again, through which she ran all day, clearing them at dusk, the last one seen being about twenty-two miles to the south-west; the vessel was then hauled to the northward for eight hours, and again kept on her course. That the temperature of the sea does not note the proximity of ice has, on this passage, been successfully demonstrated, as the thermometer stood at 52° both close to the bergs and at a distance from them. Viewing the ship as she now lies in Darling harbour, it appears truly wonderful how she escaped total destruction. —*Sydney Morning Herald* (March 11).

ABUSES ON BOARD EMIGRANT SHIPS.

IN view of the impetus which the troubles in Ireland and the political complications in Continental Europe have given to emigration, the alleged abuses on board emigrant ships should be inquired into, and if the complaints that have been made, in this connection are well founded, the remedy should be promptly applied. It is alleged, among other things, that, in some cases, insufficient water and food are provided; that cooking privileges are denied unless bought at a high price; that hospital accommodations are not at all sufficiently furnished, and that, in general, passengers are very badly treated. As the warm season sets in the fear of engendering cholera in the holds of crowded ships ought to prompt an early and emphatic correction of the abuses specified. Under the British Passenger Act the emigrant may seek for redress through British government officials in this country as well as in London, Liverpool, or Glasgow. And even if heavy penalties were not awarded in every instance where a suit was brought, the case would at least be officially investigated and officially reported on; which of itself would be of manifest advantage in checking the evils of over-

crowding, insufficient provisions, and extortion in whatever form it might be attempted. Some of the accounts of a passage in the steerage across the Atlantic read like the story of the horrors of "the middle passage." It would appear, that not only are emigrants from European ports in great numbers often crowded into close, contracted, and utterly insufficient quarters, to their serious discomfort, but the stifling and unventilated quarters are fearfully conducive to disease and mortality. We need the labour of hundreds of thousands of this element of European thrift to secure the development of our almost limitless material resources, and no means should be omitted to stimulate the exodus from the Old World to the New. The distinguished statistician, Hon. S. B. Ruggles, of New York, lately published an interesting paper on immigration, in the form of a letter to the Secretary of the Interior, in which he estimates the cash value of every foreign European emigrant to this country, independent of any property he may bring with him, at 1,000 dollars. Of course, if the foreigner is something more than a labourer—if he is master of a trade, it follows that his pecuniary value to the country is still greater. The annual accession, therefore, of even 10,000 foreigners to our people would add to the wealth of the United States 10,000,000 dollars. He further shows that the arrivals here may reasonably be expected within the next twenty years to amount to over five million. The accumulation of wealth to the United States from this source alone is truly prodigious, amounting to more than a third of the present national debt. In view, therefore, of the advantages accruing to our people and government from immigration, it is clearly our policy to encourage it by every means in our power. And no better means, to this end, can be afforded than to render the transit of the immigrant to our shores as easy and as pleasant as possible. Investments in this direction will return to the investors a hundredfold.—*New York Shipping and Commercial List.*

TO CORRESPONDENTS.

The Communication from Adelaide, Australia, has reached us.

CHARTS AND BOOKS PUBLISHED BY THE HYDROGRAPHIC OFFICE,
in May, 1867.

1183.—England—West Coast, Bristol Channel, Kenfig River to Nash Point, including Scarweather and Nash Sands, and views. Commander Alldridge, R.N. 1860. 2s. 6d.

505.—West Indies—Tobago Island, with plan of Courland Bay, with views. John Parsons, Master, R.N. 1865. 2s. 6d.

488.—Ditto, ditto, Eastern part. John Parsons, Master, R.N. 1865. 1s. 6d.

508.—Ditto, ditto, Scarborough, Rockly Bay, with views. John Parsons, Master, R.N. 1865. 1s. 6d.

EDWARD DUNSTERVILLE, *Commander, R.N.*
Hydrographic Office, Admiralty,
21st May, 1867.

THE
NAUTICAL MAGAZINE

AND

Naval Chronicle.

JULY, 1867.

THE VOLCANO OF MAUNA LOA, OWHYHEE, SANDWICH ISLANDS.

FOR our own reasons we have here departed from the accepted mode of spelling the name of the island containing the volcano of Mauna Loa, and these are the original English spelling of it by the discoverer, our celebrated Captain Cook, and the adoption of his mode by our own Geographers. It was natural for the French navigators afterwards to suit their own mode of spelling to their own ears, and the adaptation of the islanders' pronunciation as near as they could to their's. But why their mode of spelling should be followed so soon by the descendants of Englishmen we are at a loss to understand. The difference in the pronunciation of the terms Owhyhee and Hawaii is nothing, provided that the Englishman reads the latter as a foreigner, making the *i* an *e* and *Haw* for *O*. However this may be, and notwithstanding the islanders adopt the latter, while our Geographers and our Hydrographers preserve (as in our opinion they very properly do) the orthography of the original discoverer, we cannot think of so far slighting our own great circumnavigator, who perished in the cause of this very discovery, by adopting that of another. We propose to preserve for our readers the following account of the Eruptions of the largest and most celebrated volcano in the world, from the pages of a local paper—a volcano to which, in point of importance, magnitude, and splendour, all others are insignificant, and to which Vesuvius, celebrated by our travellers on account of its proximity, bears no comparison. Our volume for 1859 contains an account of the last great eruption, and we here give an historical *resumé* of these doings.

The late volcanic eruption on Hawaii, which has been visited and

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viewed with pleasure by a large number of our residents—ladies as well as gentlemen—has excited so much interest in it, that we have prepared the following somewhat extended historical sketch of eruptions on that island, which will, we trust, prove interesting at home as well as abroad.

Whether we view its height and immense size, the beauty and singularity of its dome-like summit, or the magnitude and length of its lava streams, the volcano on Mauna Loa, on Hawaii, is one of the most remarkable in the world, rising from the sea to an elevation of nearly 14,000 feet. In height it is only exceeded by the active volcanoes of Cotopaxi in Equador (18,887 feet) and that of Popocatepetl in Mexico (17,700 feet), and two or three others in Asia and America. All these rise from elevated table lands, and consequently only show a height of 7000 to 9000 feet from their bases. Mauna Loa, on the contrary, rises in one stupendous mount directly from the sea.

Few of our readers are aware that on the summit of Mauna Loa exists an enormous crater, excelled in dimensions only by that of Haleakala, on East Maui. This crater was first described by the lamented English traveller, Douglas, who visited it in 1834, and subsequently lost his life on the same mountain. The circumference of the rim of this crater, as measured by him, is about twenty-four miles, or eight miles in diameter, and its depth 1270 feet. The bottom of this crater is rent by terrible chasms, which to all attempts yet made are unfathomable. This crater is divided into three lesser ones, the northern of which, known as Mokuaweoweo, has frequently been in action; the others appear to have long been quiescent.

Earthquakes, though of frequent occurrence on Hawaii, are happily so slight as to be barely perceptible, and have never been known to do more serious damage than that of throwing down stone walls, upsetting milk-pans, etc. The inhabitants of that island have never manifested the slightest fear from earthquakes. They occur, on an average, six or eight times a year, though in some years nearly double that number have been noticed. On the other islands of this group, excepting occasionally on Maui, earthquakes are seldom or never experienced.

Of the three large volcanoes on Hawaii, which were probably in frequent action during the eighteenth century, two of them, Mauna Kea and Hualalai, are now extinct. Appearances would indicate that the former ceased action first, as the lava on its sides bear an older character. Of Hualalai, which was last in action about sixty years since, Jarves says:

“This mountain was ascended for the first time by a party from Vancouver's vessels, in 1794. Smoke was then visible at its greatest elevation. A few years later, it poured out a volume of liquefied rock, which overran a wide extent of country, destroying several villages, fish-ponds, and plantations, finally expending itself in the ocean, where it filled up an extensive bay, twenty miles in length, and formed a new headland several miles beyond the old termination of the coast. The mountain yet looks gloomily, as if brooding some new disaster.”

The natives on Hawaii still narrate to travellers the story of the

death of a woman and child, which occurred in one of the last eruptions on Hualalai. The base of that mountain had then as it has now, small fishing villages scattered along its shore. The last eruption began in the night, and the natives were roused from their slumbers by the noise of the lava stream flowing down towards their settlement. Nearly all succeeded in escaping. In one hut, however, the husband only was awaked, and went out to learn the cause of the noise, but from fright ran off leaving his wife and child. The lava approached rapidly, but before the woman was waked by the wild shrieks of the natives, it had encircled the hut and found its way to the sea. Escape was impossible. To attempt to cross the fiery stream, was instant death. Nearer and nearer the stream came until it reached the hut, setting it on fire. The frightened woman, with her child in her arms, sought refuge in a pandanus tree—but here safety was only for a moment. The hut was fast crumbling to ashes beneath the fiery destroyer, which was rapidly approaching the roots of the tree. There was now no hope, the lava had reached the tree and burned its roots, and soon the woman and child fell a sacrifice to the insatiate goddess Pele.

Mauna Loa is the only volcano now active on Hawaiian Islands. Its principal crater is that of Kilauea on the eastern side, at an elevation of 4,104 feet above the sea. But its eruptions are not confined to this crater, but occur on all sides of the mountain and at various heights—sometimes near the summit, but more frequently between 7,000 and 12,000 feet above the sea. We have found no publication that gives a chronological account of the eruptions on Mauna Loa, nor do we know of any such. It would be an interesting study for some of our antiquarians to look up and give brief accounts of the eruptions which have occurred since the discovery of this group.

Prof. Dana, in his *Geology of the U. S. Exploring Expedition*, the most valuable work to which we have had access, speaks of several early eruptions of the volcano on Hawaii. We quote his accounts :

I. 1789.—“The first eruption of Kilauea, of which tradition gives any definite knowledge, occurred about the year 1789, during the wars and conquests of Kamehameha I. It took place between Kilauea and the sea, in a south-easterly direction. It is said to have been accompanied by violent earthquakes and rendings of the earth, and an eruption of stones and cinders from the open fissures. It was so violent and extensive that the heavens were completely darkened, and one hundred lives are supposed to have been lost. There are now, over a large area near Kilauea, a few miles distant to the south or south-east, great quantities of a light pumice-like scoria with stones and sand, which are believed to have been thrown out at this time.” [This eruption is spoken of in Dibble's *History*, as having destroyed part of the army of Keoua, Kamehameha's rival.]

II. 1823.—“The outbreak of 1823, and the features of the crater after it, are described by Mr. Ellis. A large tract of country in Kau was flooded, and the stream, when it reached the sea, as I am informed by Mr. Coan, was five to eight miles wide. The earth is said to have

been rent in several places, and the lavas were ejected through the fissures, commencing their course above ground some miles south of Kilauea. There was no visible communication with the lavas of the crater at the time, but the fact of their subsiding some hundred feet simultaneously with the eruption, is satisfactory evidence of a connection." [This overflow probably entered the sea at Kapapala. It is spoken of by Douglas, in the *Hawaiian Spectator*, vol. ii. p. 415.]

III. 1832.—"In June, 1832, an eruption took place both from Kilauea and the summit crater of Mauna Loa. The only ejection at this time of the lavas of Kilauea to the surface, of which we have definite account, occurred in the east wall of the crater. A deep fissure was opened in the wall, from which streams flowed out, part back into Kilauea down the steep slope, and part across into the old crater, which at the time was overgrown with wood. * * *

"In September of 1832, when Rev. J. Goodrich visited Kilauea, the eruption had taken place. The lavas, which previously had increased so as to fill up to the black ledge and fifty feet above, had sunk down again nearly to the same depth, leaving as usual, a boiling cauldron at the south end. The earthquake of the January (June?) preceding had rent in twain the walls of the crater, on the east side, from top to bottom, producing seams from a few inches to several yards in width, from which the region between the *two craters* (Kilauea and the 'Old Crater') was deluged with lava. About half way up the precipice there was a vent a quarter of a mile in length, from which immense masses of lava boiled out directly under the hut formerly occupied by Lord Byron's party." See *American Journal of Science*, xxv. 199.

"From these accounts (Goodrich's, etc.) it is probable that, in addition to the ejections from the east wall, which are insufficient to account for the subsidence in the lower pit, there must have been a *subterranean* outlet beneath the sea."

IV. 1832.—"An eruption is stated to have taken place in the summit crater of Mauna Loa on the 20th of June, 1832, and the mountain continued burning for two or three weeks. The lavas broke out in different places, and were discharged from so many vents, that the fires were seen on every side of the dome, and were visible as far as Lahania." See *American Journal of Science and Arts*, xxv., 201, in a communication from Rev. J. Goodrich, dated 1832, November 17th.

The Eruption of 1840.

The best account that we can find of this eruption of Kilauea is given by Jarves in his *Scenes and Scenery* :

"On the 30th of May (1840), the inhabitants of the district detected a smoke and some fire rising, in the direction of the volcano (Kilauea). As it proceeded from an uninhabited and desolate region, they gave themselves no further concern about it, attributing it to the burning of brush-wood. The next day, being Sunday, the several congregations

at Hilo and its vicinity, were alarmed by the prodigious increase of the flames, in that quarter. They increased so rapidly as to leave no doubt that the volcano was in motion; but in what manner it was discharging itself, was as yet conjecture. The fiery column, sending forth heavy masses of smoke and cinders, gave indication that it was no ordinary outbreak. Fear began to seize upon some. The burning torrent was four thousand feet above them; and if it turned in the direction of Hilo, the devastation would be dreadful. But on the 1st of June it began to move in a north-easterly direction; and in little short of four days reached the sea, having flowed forty miles from its source. Owing to the inequalities of the country, the rapidity of its movement was not uniform. In some places it was stayed for a considerable time, until a valley had been filled up, or precipice overthrown. In such spots it spread itself into lakes many miles wide. On level ground it moved slowly and sluggishly, but when it met with a descent, it acquired a velocity of even five miles the hour, consuming every thing before it. Its depth varied according to the nature of the soil, and is from twelve to two hundred feet and upwards. The average descent of the country in the direction it took, is about one hundred feet to the mile. Its general movement, owing to its great consistency, was in immense semi-circular masses or waves. These would roll on, gradually accumulating, until the mass had become too heavy to hold itself together, while the exterior was partially cooled and solidified; then bursting, the liquefied interior flowing out would join a new stream, and by its momentum cleave that asunder. By these accelerated progressive movements, the wave-like ridges were formed, which are everywhere observable on the older dykes. At times it forced its way under the soil, presenting the singular appearance of earth, rocks, and trees in motion, like the swell of the ocean. It found its way into crevices and subterranean galleries, flowing on until it had filled them up, or met with some impediment, then bursting up the superincumbent soil, it bore off upon its livid surface, like rafts on a river, hillocks with trees still standing upon them; and so great was its viscosity, heavy rocks floated down with the stream. A white man, who was standing upon a small lime hill, near the main stream, absorbed by the spectacle, felt the ground beneath him in motion, and, before he could retire, it had been raised ten to fifteen feet above its former height. He had barely left the spot before it burst open like a shell, and a torrent of fire issued rapidly forth. On the third day of the eruption, three new hills of a mile in length, and from six hundred to eight hundred feet high, were formed in the direction where the fire first appeared. In two days they had entirely disappeared.

To the windward, the running lava could be approached, near enough for those who visited it to thrust long poles into the liquefied rock, and draw forth specimens. On the leeward side, owing to the intensity of the heat, the noxious and deadly vapours and gases, with which the air was impregnated, and the showers of hot ashes, sand, and cinders, which were constantly descending, all vegetation for many miles was destroyed, and the inhabitants obliged to flee with the greatest ex-

pedition. Fortunately, the stream flowed through two 'lands' only, according to the Hawaiian division of territory, those of Nanawale and Kanahikio; both sparsely populated, and quite barren. Consequently, the warning being ample, although a number of small hamlets were overwhelmed, and a multitude of swine and poultry perished, no lives were lost among the people. The body of an old woman, who had just died, was consumed. The colour of the viscid mass was, while flowing sluggishly, of the deepest crimson; when more active, it resembled gore and fresh blood violently stirred together. At Hilo, and places forty miles distant, such was the brilliancy of the light, that the finest print could be easily read at midnight. This noon-tide brightness, converting night into day, prevailed over all East-Hāwaii, for two weeks, and is represented, by eye-witnusses, to have been a spectacle of unsurpassed sublimity. It was like the glare of a blazing firmament, and was seen for upwards of a hundred miles at sea. It also rose and spread itself above the lofty mountain peaks, so as to be distinctly visible on the leeward side of the island, where the wind drove the smoke in dense and massy clouds."

The Eruption of 1843.

An eruption took place in January, 1843, which is described by Messrs. Andrews and Coan, *Missionary Herald*, xxxix. 381, xxxix. 463, and xl. 44. It broke out at the very summit on the 10th of January, and continued down the slopes of Mauna Loa in two streams; one flowed to the westward towards Kona, the other flowed northward to the foot of Mauna Kea, and then dividing, one part continued on towards Waimea, north-eastward, and the other towards Hilo, eastward. The branch toward Mauna Kea is described as twenty-five or thirty miles long, and averaging one and a half miles in width. It appears from the accounts that the mountain was fissured in the two directions, and that the ejections took place from the fissures instead of from the summit craters where it commenced. Says Mr. Coan:—"On the morning of January 10th, before day, we discovered a small beacon fire near the top of Mauna Loa. This was soon found to be a new eruption on the north-east slope of the mountain, at an elevation of near thirteen thousand feet."

"Subsequently," Mr. Coan goes on to say, "the lava appeared to burst out at several different points lower down the mountain, from whence it flowed off in the direction of Mauna Kea, filling the valley between the mountains with a sea of fire. Here the stream divided, part flowing toward Waimea, and the other eastward toward Hilo. Still another stream flowed along the base of Mauna Loa to Hualalai, in Kona. For about four weeks this scene continued without much abatement." etc. Ascending the mountain, Mr. Coan reached the stream of lava between Mauna Loa and Mauna Kea, about 7000 feet above the sea. On the evening of the third day, "as darkness gathered

around us, the lurid fires of the volcano began to glow and to gleam upon us from the foot of Mauna Kea, over all the plain between the two mountains, and up the side of Mauna Loa and its snow-crowned summit, exhibiting the appearance of vast and innumerable furnaces burning with intense vehemence. On this plain we spent the day in traversing and surveying the immense streams of fresh scoria and slag which lay in wild confusion further than the eye could reach, some cooled, some half cooled, and some still in fusion." On the ascent they passed fields of scoria, and regions that were at times steaming and hot, evincing igneous action beneath.

"Soon we came to an opening of twenty yards long and ten wide, through which we looked, and at the depth of fifty feet, we saw a vast tunnel or subterranean canal, lined with smooth, vitrified matter, forming the channel of a river of fire, which swept down the steep side of the mountain with amazing velocity. As we passed up the mountain we found several similar openings into this canal, into which we cast large stones; these instead of sinking into the viscid mass, were borne instantly out of sight. Mounds, ridges, and cones even thrown up along the line of the stream, from the latter of which steam, gases, and hot stones were ejected. At three o'clock we reached the verge of the great crater where the eruption first took place, near the highest point of the mountain. Here we found two immense craters, close to each other, of vast depth, and in terrific action."

The Eruption of 1852.

The eruption occurred in February, 1852, and broke out on the north side of Mauna Loa, not a great distance from that of 1855. An account of it, written by Mr. J. Fuller, and dated May 12th, we find in the *Friend* for May, 1852, and extract a few paragraphs describing the scene:

"During the first night, at the distance of forty miles, we heard the rumbling of the volcano, like the roar of the heavy surf breaking upon the shore—and saw the sky brilliantly illuminated above the crater and the flowing lava. An immense column of vapour and smoke arose from the crater and formed a magnificent arc, reflecting the red and purple light of the fiery masses below. Animated by sights and sounds so grand, we quickened our pace in order to gain a nearer view of the scene, believing that in this case, distance did not lend enchantment to the view.

On the second day towards night we came to a hut built by the party of the previous week—being wet with the rain, we concluded to spend the night here—we enlarged the house, built a fire in one part of it, put on dry clothes, wrapped ourselves in our blankets and passed a comfortable night. The morning was fine, we soon caught sight of the lava jets as they shot up above the distant mountain ridges, and passing the whitened bones of a mule lost by the King's party while

crossing the mountains two or three years ago—snatching here and there a bunch of delicious ohelos which grew by the path, we came, at about ten a.m. of the third day, to the last ridge that separated us from the region of the eruption; ascended to the top of this, the whole scene, *wild, terrific, grand, magnificent*, bursts upon our senses!

It is impossible to give you a complete description of what we saw and heard, or to draw a picture which will produce the same impression on your mind that the original did upon mine. Language, on such an occasion is powerless, eloquence is dumb, and silence is the expression most congenial to the sentiments of the soul. Yet I will try to give you some facts and hints which will assist your imagination in its conceptions of the wildly interesting scenes we witnessed.

Imagine yourself, then, just ascended to the top of the above mentioned eminence. Before you, at a distance of two miles, rises the new formed crater in the midst of fields of black, smoking lava, while from its centre there jets a column of red hot lava to an immense height, threatening instant annihilation to any presumptuous mortal who should come within the reach of its scathing influence. The crater may be 1000 feet in diameter and from 100 to 150 feet high. The column of liquid lava which is constantly sustained in the air, from 200 to 500 feet high, and perhaps the highest jets may reach as high as 700 feet! There is a constant and rapid succession of jets one within another, the masses falling outside and cooling as they fall, form a sort of dark veil, through which the new jets darting up with every degree of force and every variety of form, render this *grand fire fountain* one of the most magnificent objects that human imagination can conceive of. From the top of the lava jets, the current of heated air carries up a large mass of scoria and pumice, which falls again in constant showers for some miles around the crater."

(*To be Continued.*)

A FOREIGNER'S ACCOUNT OF US—*The Admiralty.**

NEAR Parliament Street, of London, there stands a sombre brick building, the principal face of which forms the interior of a dull damp courtyard. To bring it to the side of the street two wings have been added, which while they form two sides of the court, contribute nothing to improve the monotonous character of the architecture: nevertheless it is here that the business of the Admiralty is carried on. The English have been long celebrated for their contempt of architectural pride: in fact it is said that they even consider it honourable to conduct the affairs of the state in low contemptible looking buildings. The contrast between a great maritime power and squalid poverty in such an edifice seems to have struck our neighbours themselves from the middle of the last century. In

* Suggested principally by an article in the *Bevue des deux Mondes*.

1776, two architects of the name of Adam (brothers) undertook to screen the entire want of elegance in the building by a wall, with but little effect, yet certain well finished, although rather tame emblems placed on it in the shape of winged seahorses,—the prow of a Roman galley, and an imitation of the forepart of an English ship of war, indicate tolerably clearly the nature and purport of this public building. However to make up for want of elegance in structure, it has certain claims to notice quite after the heart of a people jealous of their national history.

The Admiralty in former times was Wallingford House, which according to Pennant, the English historian, was so called, "because it was inhabited by the Knollys—Viscounts Wallingford." Oliver Cromwell held some of his councils here, and here also the celebrated George Villiers, Duke of Buckingham, was born, who in 1676 became one of the members of the administration known by the name of the *Cabal*.* The restoration had secured him a revenue of £20,000, which he squandered in all kinds of extravagances. The son of a parent, assassinated in the reign of Charles the First, whose favourite he was, by turns he had been alchemist, painter, poet, musician, gentleman, an indiscreet wit, a debauché, turning night into day and day into night, ambitious and at the head of every party; the second George Villiers by his vices and eccentricities more than rivalled those of the court of Charles the Second. Dryden has drawn his portrait with a masterhand in dark colours: he has shown up the extravagances and follies of this singular character, leaving more than one tragic episode in the shade. George Villiers was the lover of the Countess of Shrewsbury, whose husband he killed through jealousy. The countess, disguised as a page, held the bridle of the duke's horse, while this was proceeding, and the murderer in his blood stained condition bestowed his attention on her before he had even changed his clothes. The Duke of Buckingham, according to Pope, died after having run through a princely fortune "in the miserable room of a squalid cottage," and according to others, in one of his tenants' houses at Kirby Mallory.† It was in the reign of William the Third that the Admiralty Office was installed in the ancient dwelling of the prodigal son.

It was with much interest that I visited this fountain of the maritime power of England. The administrative habits of Great Britain have nothing of that official raideur which distinguishes them in other countries. I was shewn over the offices with the greatest kindness, the old bowling-green of the Dukes of Buckingham, now converted

* The period at which the *Cabal* ministry was formed is said to have been at "the lowest point of degradation this old English nation ever reached; her fleets swept from the sea, and her king called the menial of a foreign power . . . The former government was superseded by the most unprincipled administration in our annals called the *Cabal*, from the initials of its chief members' names:—Clifford, Arlington, Buckingham, Ashley, and Lauderdale; and men began to despair." *History of England by the Rev. James White*.

† At a very recent Exhibition of our Artists there was a picture of it.

into a garden, the room in which Nelson lay and from whence he was carried in great state to St. Paul's Cathedral, the first model of the statue on the column of Trafalgar Square, the library, the anteroom of the First Lord of the Admiralty, the walls of which are ornamented with arms and accoutrements, and the Board-room. What imparts an air of lively interest to the interior of this otherwise cold forbidding edifice is its association of ideas with historic reminiscences. How many men of note and eminence have ascended that stone staircase. Perhaps in that old leathern arm chair Captain Cook himself was once seated. I was also shewn the book signed by the admirals on taking the oath of allegiance, when they declared on their honour to oppose, as far as they could, the authority of the pope in matters of religion, the belief in the real presence, and other articles symbolical of such matters. What could these dogmas have to do with the management of a fleet? It must not be forgotten nevertheless, that, if from the sixteenth century England has resisted sometimes alone her enemies on the continent: it was by opposing to them two great principles—Protestantism, and the sea. What great names are written by their bearers in this list of heroes of whom many have sealed with their blood their devotion to their country and the right of freedom in belief. The Board-room in which the Lords of the Admiralty assemble is only distinguished by curious old carvings. Here again appears Nelson, but now in a painting done at Palermo, by Leonardo Guzzardi. This however fails in want of relief and expression. At the head of a large table covered with green cloth, stands the chair of the president or first lord, while the other lords fill the chairs by which it is surrounded. In fact the whole room is old and gloomy, with poor light and no ornament: nevertheless it is here that the most important questions are decided, that interest the navy of the country.

The Admiralty correctly represents the head of the maritime administration, but it is a body the members of which are scattered over the surface of Great Britain. To speak of London alone, the affairs of the navy will be found distributed in other places, one in Spring Gardens, and another at Somerset House. A simple fact will sufficiently explain the propriety of this division of administration, that appears at first extraordinary to strangers. Thus like nearly all the branches of the British government, the maritime power is formed by means of distinct elements, which must necessarily increase and multiply in proportion as the business of the country increases; but which never are allowed to accumulate in one centre. The British navy has grown with the nation, and to avail myself of a common mode of expression, it is the result of circumstances. Such a condition must not be considered then as produced intentionally, it is the natural result of the law of cause and effect. Thence it is that it readily assumes the form it receives from time to time from the Anglo-Saxon character. Nevertheless such a state of things entails inconvenience, and it becomes necessary to have recourse to certain means of connecting the divided parts of the system. One of the offices is devoted to the transmission of orders from the Admiralty, and which (thanks

to the electric telegraph) range to all parts of the kingdom. By means of these electric lines, always in operation at the command of the administration (like the brain and the nervous system), the Admiralty can telegraph its orders to different offices of London, to the government dockyards of Sheerness or Portsmouth, and send a ship to sea at pleasure. Such galvanic means differ neither in form nor material from those employed elsewhere; but there is something imposing in the silence of the office where such work is done, the very atmosphere of which may be said to be filled with the grave matters and secret messages of state. The orders which were thus transmitted at the time of my visit, were perhaps of no great importance; but the mechanical application of the means was the same as if to organize the measures for some great naval battle, as the flash which gave the order and which might represent the discharge of the cannon, departed on its silent course.

The powers of defence in England consist of a fleet and an army: but a characteristic feature of administration separates the one from the other. The army is considered to belong to the Queen, who is represented by a commander in chief—at present the Duke of Cambridge. But this is not the case with respect to the Navy. The crown has either ceded its rights over the Navy, or such rights never existed (this seems to be an unsettled point), but the government of the Navy has always rested with the Lords of the Admiralty. From whence has come this power? and how formed? These matters may be explained in a few words.

The office of high admiral existed in England long before England possessed a royal fleet. If the sovereign meditated a naval expedition, the merchant shipping in the different ports of the country were required to give their services. Recent researches have shewn that certain vessels of the state served as the nucleus of these squadrons; but the system of a permanent fleet was not introduced into the affairs of Great Britain until the time of Henry the Eighth. As to the officer charged with superintending these preparations for war as well as the general affairs of the ships, he has borne successive titles which have indicated the nature of his duties. First he was the guardian of the sea, *custos maris*: then the maritime lieutenant of the crown, *locum tenens super mare*: and towards 1297, the King of England's Admiral of the Sea, was sometimes a stranger to the art of naval warfare, and mostly one of the king's sons or some member of his family, but was not obliged to command the fleet in person. It was quite sufficient for him to organize and direct the proceedings of the naval forces from a distance, like Louis the Fourteenth, "whose grandeur chained him to the shore." The office was continued thus until September 20th, 1628, the epoch when for the first time it was confided not to an individual, but to the hands of a committee. This was shortly after the first George Villiers, duke of Buckingham, and then High Admiral of England, had been assassinated by Felton. This took place at Portsmouth, on August 23rd, 1628. The treasurer, Lord Weston, Count Lindsey, and others were called on to take

charge of the duties which had belonged to the duke, who must not be confounded with his son, the paramour of the Countess of Shrewsbury. From that time the two systems alternately prevailed; and from time to time, the duties of the High Admiral were performed by one of the principal officers of the state. Such was the case when Cromwell seized the reins of maritime affairs along with those of the government, which had been for some years held by the parliament. After him, the Duke of York, brother of Charles the Second, Charles the Second himself, Prince George of Denmark, and the Earl of Pembroke filled the office.

In fact, after more than a century and a half with but one exception, that of the Duke of Clarence, William the Fourth (who was Lord High Admiral of England from 1827 to 1828), the maritime affairs of England have always been conducted by a Board. The functions of the ancient High Admirals consisted on one hand of preserving and regulating the naval forces of the kingdom, and on the other of administering justice in all processes relating to affairs at sea. The first of these powers is at present exercised by the Admiralty itself, and the second by a tribunal which bears the name of the High Court of Admiralty, a court which exercises its authority over maritime affairs either civil or criminal.

[The author of the paper in the *Revue* does not seem to be aware that all cases of discipline relating to Her Majesty's ships are settled by courts martial composed of naval officers regulated by the articles of war, while those relating to matters involving property of mercantile shipping are settled by the High Court of Admiralty. And again that matters involving discipline, etc., of merchant shipping, as well as cases of felony regarding them, such as the wilful destruction of ships, belong to civil tribunals.]

The Board or Committee which regulates the affairs of the Royal Navy is composed of six members and two secretaries. The First Lord is generally a person of high standing entirely unknown to sea matters; he is a member of the cabinet, and corresponds in his office to the Minister of Marine in France. The second, designated by the title of the senior sea lord, is on the contrary the natural councillor of the First Lord in all matters which require his special opinion regarding nautical affairs. He is often the senior one of the Board, who, as they say, knows saltwater or the smell of the tar-bucket. The sixth member or Junior Lord of the Board is generally a young man of good birth, who wishes to get his hand in to matters of government, and learn the maritime affairs of the kingdom. All these commissioners are nominated by the Queen: they originate and fall with the ministry, in whose political views they partake.

On their taking office, the Lords of the Admiralty find the duties of their office divided between them. A statement is printed entitled "Distribution of Business," defining the duties usually assigned to each of the lords according to seniority at the Board. This arrangement, in virtue of which the council delegates to its members their duties, receives no sort of publicity. It is a kind of family

compact, and the Admiralty remains a council of six, concealed from the country. The extensive sphere of its authority includes the management and discipline of the fleet, the control of dockyards and other government establishments, which pertain more or less to the sea. Its duties include the nomination of naval officers, either civil or military, and to regulate the expenses of repairing or building ships, and to control the establishments of naval instruction belonging to the government; all which affairs are regulated by the Board. The decisions of these meetings however, undergo revision and scrutiny. According to a time-honoured custom, the first lord holds a supreme opinion at the Board. In fact he is in the position of a member of the Cabinet. Having the secrets of the government, he controls certain armaments or makes a new disposal of naval forces, without being accountable for them to the Board. The other lords have then but to choose between two courses, to agree or resign, and the last is very seldom adopted. The minister has good right to justify his silence by more than one serious motive. Would it be right for him to allow his intentions to get abroad by confiding them to honourable men, no doubt but which might by accident unintentionally get spoken of at the clubs? There is nevertheless an anomaly which is at once evident here. That is, a Board covering with its collective responsibility, acts with the entirety of which it is scarcely informed. The assent of the commissioners becomes in this case, the index of the minister's will. In general however, the first lord defers to the opinions of the other lords, as far as concerns the details of the administration with which they are charged. He does not preside always at all decisions; two commissioners and a secretary are sufficient to make a Board. The first secretary is generally a member of Parliament, and when the minister belongs to the Upper House of Parliament, he is often the only organ of the Admiralty in the House of Commons.

The system of the Board has often from old been the subject of severe criticism in England. It is reproached, and with much reason, of weakening the responsibility of power by being divided,—which praises or which blames in a group of individuals, that presents the appearance of a factitious solidarity, and which deals with affairs without leaving a trace behind it. In a country where public opinion is everything, one has a right to deal with the powers of authority in the shape of flesh and blood, and not with shadows, which, like the divinities of Homer, disappear in a mist the moment that one would touch them. Above all other committees of the same kind has this of the Admiralty found shelter from the attacks of the press? Certainly not. Indignation ran high among our neighbours when the First Lord of the Admiralty, Sir John Pakington, lately declared before Parliament that he had scarcely a vessel in the Reserve fit immediately to be sent to sea. The country remembers bitterly some seventy millions sterling which have been expended in seven years for the fleet, and the cry of alarm spread to every corner of Great Britain. There is no doubt some exaggeration in the many comments to which this declaration of the minister gave rise, and I should pity the

stranger who believes every word to be true that is uttered by our neighbours on their affairs. The English, as far as regards the interests of their country, resemble the husband who growls bitterly over the state of his own affairs, but does not permit a single other person to say a word against them. Never does the actual condition of the British navy fulfil either the hopes entertained of it, or correspond to the sacrifices of money that have been lavished upon it. Each new minister, on taking office, holds the same language as Sir John Pakington. Is it for the purpose of depreciating the preceding administration? I cannot think so:—surely the British navy suffers from some chronic infirmity. Apart from the faults found by the Admiralty several causes sufficiently explain that the present period is a crisis of uncertainty.

An attentive observer would not fail to perceive what has passed for several years under the ministry even of Lord Palmerston. It will be remembered that the English Government proposed, for the first time, to construct on the sea-coast large defensive works, and obtained large grants of money to carry out the plan. Fortifications, and what for? The English of the last century disdained to fortify their coasts! thus defying the whole world to approach them. "The sea, they said, is our battle-field, and yet Admiral de Ruyter boasted that his flag had forced the mouth of the Thames." It is not for me to judge of the propriety of the great works, which the English carry on from year to year at enormous sacrifices of money: all that I can see in them is an acknowledgment of uneasiness. The formation of redoubts, and stone bastions, sufficiently attest that our neighbours have lost their faith in the old wooden walls—their ships! What is it then that has shaken this old confidence in the protection of the sea? How is it that Great Britain has thus seen some (it may be said) of her power dissipated? The material condition of a fleet of war ships has changed in the course of half-a-century. Hitherto, in order to maintain her superiority on the sea, England reckoned on the valour and experience of her seamen. Tritons as they are, born on the shores of an island, from their youth they are inured to the elements, and their first consideration was the sea rather than the land. Steam, adapted to the use of large ships, and lately armour-plated vessels, have singularly changed the condition of naval affairs. To men fighting against each other almost a war of machinery has succeeded. Whatever might be the courage and intelligence of the assailants, always the soul of the new marine monsters, it is certain that individual power is nearly lost behind the masses of iron bearing the thunder of war on their impenetrable sides. One must not be surprised then that recent inventions have, for an instant, disconcerted the ancient maritime genius of England, accustomed to long success obtained by other means.

Unfavourable or advantageous as these new terms of meeting hostile nations may be, they must still be put up with. England, by her insulated position, her history in reference to commerce, and her colonial possessions, must of necessity be a maritime power of the first

order. She follows then, although with some reluctance, and an evident dislike, in the routine of mechanical appliances to ships of war. The English, being a mechanical people, may eventually regain their superiority on a new common field, but again she is disconcerted that it is yet at a distance arising from the change. The plated ships Warrior, the Minotaur, the Northumberland, and others sally forth gradually from their building yards. No doubt various obstacles oppose the rapid development of the new system: I do not allude to money, for in spite of the enormous expense, the country is resigned beforehand to any sacrifice to recover its position on the sea. If their wooden walls have done their work, recourse must be had to those of iron to preserve maritime supremacy. What rather delays the progress of reconstructing the British fleet is what everywhere checks the ardour of a government. Discoveries and inventions succeed each other with such marvellous rapidity, that in the midst of such changes the mind is apt to wander from one thing to another. What to adopt, what to reject. The mere chimeras of yesterday become the realities of to-day, and perhaps the rejected of to-morrow. How is a country's armament to be hazarded on such or such a system, when perhaps in a few months the same expense may have to be incurred for a more efficacious one. To say nothing of vessels, there is a perpetual strife between the power of the gun, and that of the armour to resist it, and day by day this same resisting power of armour has to be doubled to meet the increasing force of projectiles. The desideratum to be attained is a ship that shall be *invulnerable*, and free from taking fire; and no sooner is such a boon supposed to be attained than all vanishes under the test of experience; who cannot but perceive that such a state of things must have often embarrassed the Lords of the Admiralty. No doubt a strong mind will triumph over obstacles, but that imperturbable resolution, how is it to be found among men when they are, for the most part, strangers to the navy, at a council whose responsibility vanishes every moment behind that of the minister. Should the day ever come when England demands an account of the proceedings of the Admiralty, who shall be their accusers, the Lords of yesterday, or those of to-day? An impenetrable veil ever covers their doings.

The majorities of committees is in England the spirit of routine. In these bodies is it not the same class of society which, under different conditions, manages from one generation to another the reins of government. In times of peace the nation allows it: it waits its day, quite satisfied at some opportunity of seizing a crisis in affairs. A war comes, and public opinion awakes as from a dream, clamours imperatively for reform. Such was the case in 1854, when the Crimean campaign shewed the requirements of the English army. And will it not be the same with the navy? Is a war with America necessary to awaken the energies of the Administration of Great Britain? The egotism of barbarous ages does not please the great founder of nations; it banishes social relations, the relative conditions of states is its last place for refuge, and here it accords ill with the progress of civilization.

What kind of patriotism would that be which in these days rejoices over the maritime decadence of neighbours? Every nation of the world has a right to be strong in the presence of strong nations, and lessens the chances of war, by curbing the foolish temptations of ambition. Certainly England is by no means in so reduced a condition as to encourage, by her neglect or weakness at sea, the enterprise of a rival. The resources of England are perhaps greater now than ever, and her seamen have not yet degenerated. The spirit of adventure and enterprize of the merchant seamen of the United Kingdom is as evident as ever. What is it that it has failed in of late,—a leader and a power responsible for deeds? Again, that I may not be misunderstood,—No one here wishes for change in the base of maritime constitution, such as that which has been founded in Great Britain by the efforts of the whole country, and prepared by the naval authorities. The English do not originate, and have no reason for regrets: it is probably from the possession of such a faculty that the various services have preserved their freedom of action. The British navy itself displays self-government. The parties interested in it generally find the means of making themselves understood somehow or other in the state discussions. Who will dare to say that this regime is injurious to the national interests? The English—we know it but too well, had no desire for that centralization, so vaunted of in France, to gain the Battle of Trafalgar. What they have a right to claim beyond ordinary, is a system which, securing the spontaneous concurrence of the numerous elements of which the Royal Navy is composed, shows more clearly who are the men placed at the head of the Administration.

It would be superfluous to point out the different public services which are included in the Admiralty. One of the most interesting undoubtedly is hydrography. From this department proceed the admirable charts, known throughout Europe, and on which are shown with fidelity the smallest sandbanks formed by the ocean along the shores of England, the concealed rocks, the configuration of the islands and outlying banks. Another branch of naval administration attached to the Admiralty is found close by it in Spring Gardens, and that is the Coast-Guard Office.

SALE OF GUANO.

THE following law for the sale of guano has been passed:—Art. 1. The government will not be able for the future to make any new contracts of consignment, nor prorogate the actual ones by the system of advancement or any other means. Art. 2. The guano will be sold in Peru for each and all the nations who consume it. The sale will be made at public auction, fixing anticipated notices during six months of the quantity of guano to be consumed in one year, or two years at the most. Art. 3. The government will proceed to make contracts

for the sale of the guano, with the actual consignees for the quantity consumed in their respective markets. Art. 4. These contracts for the selling of the guano will be immediately submitted to the deliberation of Congress, without the approbation of which they will be null and void. Art. 5. The government must attend most strictly to the faithful accomplishment of all the obligations of the nation in favour of the foreign debts. Art. 6. If the government could not raise any funds in accordance with Art. 3, it is authorised to procure them to the sum of four million soles, celebrating the most convenient contracts, same will be submitted to Congress for their final approbation. Given at the House of Deputies in Lima on the 11th day of May, 1867—President Jose Jacinto Ibarra ; Secretary Ambrosio Becerril ; Secretary Washington La Rosa.

CIVIL LAW AND MARTIAL POWER.

(Concluded from page 323.)

No. V.—Responsibility of Officials, Civil or Military, for every Breach of the Law.

THE doctrines respecting the duty of a government in the suppression of a rebellion are summed up in their fulness in the words of two of our greatest judges on the occasion of the Gordon riots of 1780. It will be remembered that the Houses of Parliament were surrounded and the members attacked ; the Bank of England threatened ; arson, murder, and rebellion in full career ; and London, it was said, within twelve hours of being reduced to a heap of ashes. It was an insurrection rather than a riot, and was only suppressed by a vigorous use of the military force. Even this seemed to the watchful constitutionalists of that time a doubtful legality, though no man had questioned its obvious expediency. In his great speech in the House of Lords in defence of the government, to which I have referred, Lord Mansfield said (Lords, June 19, 1780 ; 21 Hansard, 694) :—

“The persons who assisted in the suppression of those riots and tumults, in contemplation of law, are to be considered as mere private individuals, acting according to law, and upon any abuse of the legal power with which they were invested, are amenable to the laws of their country. For instance, supposing a soldier, or any other military person, who acted in the course of the late riots, had exceeded the powers with which he was invested, I have not a single doubt that he is liable to be tried and punished, not by martial law, but by the common and statute law of the realm ; consequently, the false idea that we are living under a military government, or that the military have any more power or other power, since the commencement of the riots, is the point which I rise to refute, and on that ground to remove those idle and ill-founded apprehensions, *that any part of the*

laws or the constitution are either suspended or have been dispensed with."

The speech of Lord Mansfield was adopted by Lord Thurlow, then Chancellor, as the fullest and most accurate statement of the law which it was possible to express in words; and a few days later, in a subsequent debate in the House of Lords, he said (21 Hansard, 746):—

"Every man had a right to oppose force to force, on that first principle of the law of nature, as well as of the law of the land, self-defence; so the military, when present, individually as private persons, or collectively under military command, if they were insulted or assaulted, had a right to repel the violence and defend themselves. And in doing this the military did nothing but what every man else was warranted by law to do, because the military in every part of their conduct, in such case as he had stated, were bound to obey the law; and, if they exceeded it, were liable to actions of trespass, etc., just the same as any other persons who wore brown coats and were not soldiers. In all cases of high treason, insurrection, and rebellion within the realm, it was the peculiar office of the Crown to use the most effectual means of resisting and quashing such insurrection and rebellion, and punishing the instruments of it. *But the King, any more than the private person, could not supersede the law, nor act contrary to it, and therefore he was bound to take care that the means he used for putting an end to the rebellion and insurrection were legal and constitutional, and the military employed for that purpose were, every one of them, amenable to the law, because no word of command from their particular officer, no direction from the War Office or order of council, could warrant or sanction their acting illegally. . . . It was his opinion that His Majesty's ministers had done nothing contrary to law by employing the military to quell the late tumults, and that in no case, either of outrage, felony, or high treason, were the military authorised further than the meanest individual subject; all persons of all descriptions being equally amenable to the laws of the land, and answerable to them for their conduct on every occasion.*"

A statement like this by two of the greatest judges in our history passing unchallenged in the chamber which forms the first court of law in the realm may perhaps be regarded as conclusive authority, more especially so far as they limit the rights of the Executive they were engaged in defending. If the public would fix those plain and noble sentences in their mind, we should hear from henceforth but little of the audacious plea that the Crown, or any of its officials, under any circumstances, can lawfully supersede law. If any one still thinks the difficulty may be got over if the Crown or its servants simply declare that they intend to supersede civil law and to proclaim martial law, I do not care to argue with him. No responsible person will now be found to contend that any suspending power is known to the British constitution, or that the military force possesses, or by any contrivance can acquire, any other duty than that of suppressing open resistance.

There yet remains one conceivable ground of argument, that

unsuccessfully attempted by Erskine in one of his finest addresses, the ground of unexampled and extraordinary circumstances. Paramount necessity, arising from an exceptional crisis, has before now been pleaded in an English court, and the court dealt with it with conspicuous wisdom and dignity. The facts were left as a whole to a jury; they were instructed what facts were adequate "to produce that natural necessity which in a court of law was sufficient to justify crimes." Lord Pigot, being Governor of Madras, and acting, as was admitted, with outrageous illegality and violence, was arrested by his council. For this arbitrary act the council were brought home here, and put on their trial, when they pleaded that their acts, however unauthorised by law, were done *bonâ fide* to preserve a possession of the empire, where the civil arm was feeble, and which was threatened with total subversion. They admitted the breach of law; they asserted that it had saved the State in a totally exceptional crisis. Their plea was held good; but they were sent before a jury of their countrymen to prove the truth of the fact. The judge who tried them said (see *State Trials*, vol. 21, p. 1046):—

"It is my duty to tell you that the result of our judgement upon the several circumstances stated is, that though they tend to lessen the guilt of what you have done from your intention, motive, and object in doing it, and must certainly weigh in the scale of mitigation; yet the offence of which you are convicted is a grave and serious crime, and of most dangerous example, and so must be deemed in consequence of the verdict itself. You are not convicted of a formal transgression of law, but upon the merits of its justification, though it would be very difficult to define what would be a legal justification of your acts; yet the jury was not told that in strictness of law you could not in any event be justified, but the occasion, with all its facts and circumstances, was left to their consideration. They were told what was necessary to produce that natural necessity which in a court of law was sufficient to justify crimes and wrongs. If they found analogous circumstances to concur in your case in forming that crisis which you insisted on as a justification, they might venture to acquit you; and though some observations were made to show that the analogy did not exist in the present case, yet the whole case was left to the jury with great latitude. Your case, therefore, is not like that of magistrates convicted through having mistaken the forms of law. No forms of law could warrant your seizing the governor and assuming the government. Though it is fit, therefore, that we should bear in mind that fundamental rule of criminal judicature that the measure of punishment should be in proportion to the malignity appearing in the intention of the offender, it is not the less necessary that we should have a view to example, *that others may learn how dangerous it is, even in a case attended with many favourable circumstances, for men arbitrarily to assume powers inconsistent with the nature of that government with which they are entrusted.*"

Words these which unite political sagacity with unswerving justice. The law is no pedant that it cannot admit and recognise in this world,

and especially in such an empire as ours, paramount necessity and abnormal circumstances. But the law will not be trifled with. It must be a real necessity, strictly proven to the conscience of twelve honourable Englishmen. Where a ruler commits a crime and pleads necessity, he must prove that his conduct is utterly untainted, that it was the sole course open to a wise man, and he must prove this rigidly to satisfy a jury. If he cannot do this, whatever the motive, whatever the effect of his conduct, the highest interests of the State require that his crimes be formally condemned, though his punishment may not be extreme. And are we to be told now that our empire is unsafe unless this doctrine of responsible rule is relaxed? Or rather, can our empire in any great and moral sense be safe, unless that doctrine is maintained? But at least if it need to be relaxed, let it be by enactment of Parliament, and not by crafty glossing of the pondered teachings of our forefathers.

As I go over the decisions by which those doctrines were built up, I am struck with the way in which the greatness of the principles at stake obscures the parties involved. To Lord Mansfield and his age the insignificant character of the accuser mattered as little as the splendid services of the accused. When a civilian had been flogged by court martial, he did not ask if plaintiff was an insubordinate carpenter, or defendant a gallant officer; he saw only the outrage upon justice. When the gallant Picton was tried and condemned by a jury for hastily ordering that some petty torture (supposed to be legal) be inflicted on a Mulatto girl of Trinidad, the trifling injury to the victim was thought nothing to the injury endured by the insulted law; and the honour even of a hero weighed but little in the balance with the honour of England.* I purposely omit one melancholy case.†

Often have governors been tried here for crimes done in their provinces.‡ Often the occasion has been trivial. The principle involved has always been vast. If it were not so—if expediency, sentiment, party, are to govern our lawless and shifting principles of empire—that empire would shortly become what is pictured by Lord Mansfield in the splendid words of his judgement in the case "*Fabrigas v. Mostyn*." Mr. Mostyn was Governor of Minorca, from which he had summarily expelled Mr. Fabrigas, on the ground that he was actively exciting mutiny amongst the troops and sedition in the island. The Governor justified his expulsion on the plea that the island was a military post; that its civil law was in no settled or recognised state, and on paramount necessity of protecting the colony from a traitorous conspiracy. When he pleaded his right under such a crisis to protect the possessions of the Crown by all means under his

* XXX. State Trials, p. 225.

† XXVIII. State Trials, p. 51.

‡ See Eroom's Constitutional Law, p. 638. Notes to *Hill v. Bigge*. See also 42 Geo. III. c. 85, extending 11 and 12 Will. III. c. 12, and enacting that if any person in the service of the Crown out of Great Britain, shall be guilty of any crime, misdemeanour, or offence, in such employment, he shall be liable to prosecution in the Court of King's Bench in England.

royal authority, Lord Mansfield thus spoke, nor will I believe that any judge upon the bench would unsay these memorable words (State Trials, vol. xx., p. 232):—

“To make questions upon matters of settled law, where there have been a number of actions determined which it never entered into a man's head to dispute—to lay down in an English court of justice such monstrous propositions as that a governor acting by virtue of letters patent under the great seal can do what he pleases; that he is accountable only to God and his own conscience—and to maintain here that every governor in every place can act absolutely; that he may spoil, plunder, affect their bodies and their liberty, and is accountable to nobody—is a doctrine not to be maintained; for if he be not accountable in this court he is accountable nowhere..... How can the arguments be supported, that in an empire so extended as this, every Governor in every colony and every province belonging to the Crown of Great Britain, shall be absolutely despotic, and can no more be called in question than the King of France? And this after there have been multitudes of actions in all our memories against governors; and nobody has been ingenious enough to whisper them that they were not amenable.”

No. VI.—The Duty of Insisting on the Maintenance of Law.

I have hitherto attempted to show, that in the recent events in Jamaica gross breaches of law were committed by the Government. I will now try to point out how essential it is to this nation that those breaches of law should not pass without condemnation. Many persons have at length been brought to admit that crimes have been done which are without legal mitigation. The gist of the matter now lies in their belief, that these crimes are so venial in themselves, and so eminently useful in their results, that it is wiser to bury them in oblivion. One word to this party which claims to be that of conspicuous good sense.

In the first place, let us take the measure of these crimes, and compare them with those which were accounted momentous in former times. If the authorities I have cited hold good, it follows that a series of principles upon public rights have been carefully built up in the course of generations, every one of which was violated in the execution of Gordon. I have shown how martial law is unknown to our system, and is solemnly condemned in the Petition of Right. Notwithstanding this, it has been exerted on a terrific scale in the exact manner in which that statute condemns it. I have shown how the Chancellor, in one of the most memorable debates in our history, formally denied, in the name of the Executive, the power of suspending or superseding law, and a series of judges have repeated his words. On the other hand, servants of the Crown have now openly claimed and enforced this privilege in its name. I have shown that no civilian can, on any pretence whatever, be tried by court martial, or punished by martial law. Yet by courts martial and martial law they

put to death 439 civilians, and amongst them one who had never been near the scene of action. It has been proved that, on no provocation may soldiers attempt to try even a prisoner of war for a civil crime. But Gordon was charged before soldiers with the most artificial and complex of all civil crimes—high treason and conspiracy. It is settled that deliberate injustice, even in a properly constituted tribunal, will form a punishable offence. Now the case of Gordon shows one long series of acts of wrong, from his personal arrest by the Governor, down to the brutalities which accompanied his slaughter. Malice has been held to turn a sentence strictly in form into murder. And malice is here charged in addition to every illegality. It has been shown that no state of things whatever can give to soldiers the right of dealing with questions of State. Yet here soldiers usurped the duties of government for months. It has been shown that the slaughter of citizens, even in times of civil war, is murder, unless it be done in actual conflict. Yet here the official slaughter only began when all actual conflict was over. It is a plain outrage upon law to lay hands on the most notorious criminal who is once within its shield. But here this outrage was committed against one who was only suspected. In a word, a citizen living as completely within the pale of civil law as if he had been living in London, who had never forfeited his purely civil character, or done one violent act, was arrested and transported, in defiance of law, out of the pale of law; brought before men who had less right to try him than three constables, upon a charge which they had no more right to try than the charge of heresy; convicted upon evidence which in this country would expose those who offered it to punishment; sentenced in a spirit which would have made the sentence even of a lawful tribunal a crime; and brutally put to death upon a showing which in an English court would not have supported a committal for misdemeanour.

English history, from Magna Charta to this day, can show no case of accumulated violation of law by rulers so enormous as this—short of acts of real assassination. Such is the measure of this crime. Let us now consider what it is we do when we deliberately give it our sanction; and we do sanction it if, when we are challenged, we refuse to condemn. This sanction will affect, first, our own civil rights; secondly, our whole Colonial Empire; thirdly, the West Indies specially. In regard to the last, the truly gloomy aspect of this case is the fact that these events appear to be fatally chronic. Open any fair history, any history of the colonies, and turn from the index to the titles Jamaica, Demerara, Barbadoes, you will find a perennial account of massacres almost identical in incidents with this last. I have said hitherto nothing about the negroes; but it is not that they are forgotten: the oft-recurring tale of insurrection is too frightfully reiterated ever to pass from the memory of humanity. It is a tale of wonderful sameness—one unbroken weary round of horror. A riot; much agitation; a good deal of plunder; a little bloodshed: then an ominous pause. Soon an organized reign of terror by the planters, martial law, burnings, floggings, torturings, and indiscriminate

massacre of an unresisting and cowering people, protracted for months, until the very executioners become exhausted. Afterwards a murmur of indignation at home, defiance from the planter interest, a craven Government, and public apathy. Such is the British rule in the West Indies.

I cite one example, from Demerara in 1823. "The rising took place on the 18th of August. On the 19th martial law was proclaimed. On the 20th the insurrection was completely over. *While no white was sacrificed*, above two hundred negroes were killed and wounded in the first instance; forty-seven were executed; and the floggings of many more were worse than death—a thousand lashes being a frequent sentence."* Such is African ferocity and European justice. Open any history of the colonies, even those in the planter interest, and there is yet worse. Massacres by private persons, and not only by troops; massacres protracted in defiance of the governor's order; rewards offered to savages for black ears; negro prisoners roasted over slow fires; not even hung, but exposed living on a gibbet for a week. Indeed, we know that African slavery has bred in white men a spirit more devilish than any that has ever defiled human nature—cannibalism only excepted. That spirit is yet rampant. It mastered the late Governor. It glares upon us yet, in its resistance to the civil arm, in its defiance to us in the case of the butcher Ramsay. And if the English people deliberately refuse to curb it, and to punish those who fan it when entrusted with the duty of curbing it, their character as an imperial race will be stamped with infamy for ever.

Turn to the effect of this case upon our whole Colonial Empire. That empire is very vast and very composite. There is but one law for it. In principle, in the eye of justice, every citizen within it has equal rights. Civilly we have no classes of citizenship. Every citizen in that empire, black or white, is perilled by the sanction of outrage on any other. We cannot make rules for negroes without baiting them like traps for Europeans. What if the leader of the opposition in an assembly of Canada, or in Australia, had been hung like a dog suspected of madness in a moment of panic? What if a Canadian governor, on the rumour of a Fenian conspiracy, were to seize his most powerful opponent? What if a governor of Melbourne were to cut all difficulties by a month of martial law? Would any colony or settlement be safe? Could Englishmen settle in them in confidence? Whose turn, be it colony or citizen, might not come next? Or if one rule of law must exist on the statute book for all, are Englishmen deliberately resolved so to administer that law as in practice to deprive all dark-skinned men of its protection at the arbitrary discretion of a spirited governor acting under the advice of a class who were lately slaveowners?

Turn now to the effect of these deeds upon England. Our civil rights are matters of principle, which counter precedents can obscurely undermine. It is the most venerated and guarded of our own liberties

* History of the Thirty Years' Peace, Vol. II. p. 338.

which have been openly assailed. English law is of that kind, that, if you play fast and loose with it, it vanishes. It will not abide to be insulted. Defy the principles of liberty under the law, and there will soon be no principles remaining to defy. The contagion of lawlessness spreads fast. What is done in a colony to-day may be done in Ireland to-morrow, and in England hereafter. The very essence of constitutional law is this, that no violation of it in any corner should go unnoticed, or grow into a precedent in the dark, like a poisonous fungus around its roots. We find a great principle of political life in our history ready to our hands. We who thought it had long since played its part may now find in it a fresh use. We invoke it for a new but great duty. We need it no longer for ourselves, but we need it to give to our fellow-citizens without, the blessings and the safety it has given to us. The sacred principles for which the English people once fought and struggled we now invoke for the loftier end of checking the English people themselves from imitating the tyranny they crushed.

The vaunted doctrines of the English constitution and liberty are either real or sham. They have been flagrantly violated, insulted, and impugned. The most formal challenge is now given to vindicate them. On which side will the liberal aristocracy and the sober middle classes of England be found? In what has the power and the moral weight of the great Whig houses resided, if not in their genuine devotion to fixed principles of liberty? Their honour and their existence is bound up in maintaining that virtue unsullied. They cannot live for ever on traditions of Somers and of Russell, whilst careless of the principles for which those men contended. What is the strength of the middle class power, except its ancient attachment to law? Can they think they can be law-abiding here, and lawless there? Blackstone and Hallam are waste paper, if outrages like these are sanctioned. Are the titles of peers written on more enduring pages? Do they expect for ever at home an orderly and law-loving people, whilst defying all order, and right, and law abroad? They who first introduce into the peaceful spirit of political life the method of governing by *coup-d'état* will be also the first to repent, and the first to suffer by it.

Those who take us to complain simply of excessive rigour in fulfilling a necessary duty wholly mistake the true gist of this accusation. We do not question the mode of doing a certain thing; we insist that things were done in themselves abhorrent to our moral sense; nor only that these things were done, but that these things were raised into a system. That system is terrorism. By terrorism we mean the punishment of persons not on proof of crime, but solely that their sufferings may dismay others. We say that this is utterly evil—not in the degree, but in kind. It poisons the whole tone of a government. The least stain of it is infinitely odious. To kill criminals is one thing, though even criminals may be so killed as to constitute a crime. But this is not what we charge. We charge that the innocent were killed, not even to overawe the guilty, but as a warning to all men never in the future to commit particular crimes.

Now Gordon was killed as a "warning"—when the danger was over—when the governor reported that he was safe, and had rejected military aid. This is not severity—it is terrorism.

Terrorism has in it the essence of evil. It is, on the largest scale, and in the worst form, mere political assassination. Every argument against political assassination applies equally to this. Assassination, too, is sometimes called useful. Men who cannot gain their political ends by law, and who try to gain them by the crime of murder, are called political assassins. Their motives weigh little with us. Revolutions do not extinguish their guilt. The most heroic of all these crimes—that of Charlotte Corday—is to us murder. Now the political destruction of opponents, even in a revolution, is more fatal to justice when it is done by a government and by the forms of law. But terrorism, or the punishment of the guiltless, to gain the ends of a government, by overaweing those who meditate resistance, has always covered it with infamy. The suppression of the rebellion by indiscriminate slaughter was not, in Jamaica, stained by the personal ferocity of the followers of Carrier or of Tallien (except in such cases as those of Brand and Ramsay), but the spirit of it was identical with that which arose from the despair, and has sullied the name of the French revolution. It was not suppression; it was not even punishment: it was an organized reign of terror. And Jacobins in those days called it politic.

Let us not forget one other aspect of this matter. For fifty years our armies, ever in the field, have never but once met with an equal foe. Fighting often with savages, generally with rebels and citizens, always with rude enemies, never with Europeans or really organized armies, their task has been chiefly one from which soldiers of honour recoil. It is plain to me—and I say it deliberately, well aware of the responsibility I incur—with all respect for the yet honourable tone of a gallant service, that there are growing up under the constant excitement of these miserable conflicts, indications of a temper which is degrading to the army. Horrible stories come out quietly of deeds in India, in China, in New Zealand. Quite apart from Brand and Ramsay, the official reports from officers in Jamaica breathe a tone throughout of delight in slaughter—sometimes a tone both cowardly and murderous. An army of the highest moral and intellectual training could hardly pass through the ordeal of constant warfare with half-savage and dark races. On the moderately trained officers of our services it is having a blighting effect. The terrible Indian rebellion has sown evil seeds enough in the military as well as in the civil system. It called out all the tiger in our race. That wild beast must be caged again. Whatever was done in India shall be no precedent hereafter. The military ferocity which desperation begot, remorse, honour, and humanity shall repress. There is a higher courage than that of mad despair—cruel, because mad. And civilians with a firm trust in human nature must never cease to confront the spirit of blood in whatever honourable trappings it appear, to insist that the sword of our country shall not be tarnished by a foul breath of licence from

Eastern, and African, and Indian climates, heavy with the agonies of slaughtered prisoners, and the groans of defenceless citizens massacred in unresisting crowds.

And as in the one case the dead Gordon resumes in himself all the acts of wrong which his race endured, and was the victim of the most conspicuous acts of illegality and violence, so the late governor has made himself responsible for the acts of those under his orders, and concentrates in himself the wrong doing of many. Whether he be legally answerable for any criminal act, and particularly for that one act with which he is about to be charged; whether he have a good defence in the nature of the case, or in any technical plea; whether it can be shown that he acted under overwhelming necessity, are matters not for us, not for politicians, not for partisans, but for that judge and that jury who will try one of the most solemn and memorable issues which this nation has ever entrusted to the conscience of their countrymen. On the one hand stands the cause of personal liberty, the inviolability of law, just procedure, official responsibility, equal justice, and ancient precedent. On the other, that of arbitrary rule, military jurisdiction, wild injustice, martial licence, race prejudice, and strange prerogative. Let us see on which side the English public will be.

MASSACRE OF THE PASSENGERS OF THE SHIP *ST. PAUL*.

Suspected Detention of some Survivors.

THE Board of Trade Marine Department have received the subjoined correspondence from the Colonial Office, relative to the shocking catastrophe which befel the passengers of the British ship *St. Paul*, wrecked as far back as the 30th of September, 1858, on a coral rock off the south-east-end of New Guinea, when 325 of them and several of the crew were horribly massacred. It will be seen by the following that suspicion exists that some of the passengers may be alive, and are kept in custody by the natives:—

“To the Secretary of the Board of Trade,

“Downing Street, July 4th, 1866.

“Sir,—I am directed by Mr. Secretary Cardwell to transmit to you, for the information of the Lords of the Committee of Privy Council for Trade, an extract of a despatch from the Governor of Queensland, enclosing a report from Mr. Jardine, the police magistrate at Somerset, containing some interesting details respecting the passengers of the ship *St. Paul*, which was wrecked off New Guinea in 1858.—I am, sir, your most obedient servant,

(Signed) “Frederick Roger.”

The following is an extract of a despatch from Sir G. F. Bowen to Mr. Secretary Cardwell, dated Queensland, December 16th, 1866:—

“I take this opportunity of transmitting Mr. Jardine's further

report, containing very interesting details respecting the two survivors of the passengers of the British ship *St. Paul*, bound from Hong Kong to Sydney, and wrecked on a coral reef near Rossel Island in the Louisiade Archipelago (off the south-east-end of New Guinea) in the year 1858. These men were recently rescued from their captivity among the aborigines, and brought to the new settlement at Cape York. It will be seen that the shipwrecked passengers, exceeding 300 in number, stood on the reef like sheep in a pen, without arms or provisions, and that they were gradually seized, killed, and devoured in small detachments by the cannibals of the neighbouring islands. It is indeed, as Mr. Jardine remarks, a sad and horrible tale, and recalls, I may add, the Homeric description of the adventures of Ulysses and his companions in the cave of Polyphemus, rather than any real precedent in the chequered annals of British navigation. In the opinion of several captains of merchant ships trading in these seas, and of other well-informed persons, it appears more than probable that there are still many shipwrecked seamen detained in captivity by the natives of the islands in Torres Straits and in the neighbouring waters; and that the presence of a small detachment of marines at Port Albany, with the occasional visit of one of her Majesty's ships on the Australian station, is calculated to produce such an impression as will lead ultimately to the rescue of these unfortunate persons from a fate worse than death, and to the better treatment of the sufferers by similar disasters hereafter. I venture to submit that this humane object might also be taken into consideration by the Lords of the Admiralty, together with the general security and convenience of British commerce in this part of the globe, before their lordships finally decide on withdrawing the detachment. However, this is an imperial rather than a colonial question, and it has been fully discussed in my despatch, No. 49, and in the minute of the Executive Council of Queensland, enclosed therein.

(Signed) "G. F. Bowen, Governor of Queensland."

Mr. Jardine, in his report, supplies the following additional facts in connection with the wreck:—"On my late return to Somerset, I found the two Chinese in the care of Captain Edwards, whose vessel was in Port Albany. They are very intelligent, and in appearance are, I think, good specimens of their race. The elder (Paquil) is, I think, about twenty-five years of age, the younger (Sau-tan) about six years his junior. Captain Edwards informed me that while he was at Piron Island with the *Blue Bell*, one of the Chinamen (Paquil) came off in a canoe with some of the natives of the island, and that he stowed himself away on board the schooner. On his being discovered, the captain, by giving two tomahawks and some beads, was allowed by the natives to keep him; and so well pleased were they with the trade they had made that on the next day the other Chinaman was brought off by them, and likewise purchased by Captain Edwards. The two Chinamen have been treated with much kindness by Captain Edwards, in whom they seemed to put perfect trust. They were well clothed, and their condition testified to their

being well fed. They speak English sufficiently to be understood, and give most volubly an account of their shipwreck; of their being attacked by the natives; the departure of the captain and crew in the boat for assistance; the massacre of their companions; illustrating their story by action, and making terribly clear, in pantomime, the horrible details of the slaughter, portioning, and devouring of their friends; their exhaustion from hunger, thirst, and exposure on the bare coral reef, without the slightest shelter, or a weapon of any sort to defend themselves from their ruthless destroyers; their then being taken to an island with one more of their people, and kept there; and, finally, the arrival of the *Styx*, when they were bound and carried away from the shore, the third man escaping wounded to that ship's boat. It is indeed a tale sad and horrible almost beyond belief. The simple facts as I gather them are as follows:—About three moons' sail from Hong Kong, the ship was wrecked in the night-time on a coral reef a short distance to the north of Rossel Island. The crew, consisting of thirteen white men, with the passengers, reached the shore. Little food or water was saved, and the reef afforded none on the second day. The natives of Rossel Island came off in several canoes, and speared and carried off one white man and several Chinamen in their canoes. On the next day the captain of the ship went off in the boat with nine white men, taking all the provisions and water. The two remaining white men died of exhaustion. The natives again came in larger numbers, and killed and carried off nine victims. This was repeated, as far as I understand, for nine days, by which time the whole of the unfortunates not killed and eaten had died of exhaustion. They seem to have stood on the reef like sheep in a pen. The three men saved were carried to Rossel Island, and appear to have been kept in a state of semi-slavery, there made to work in the yam-grounds, etc., but were otherwise treated and fed well. They remained there till the *Styx* arrived, when one escaped to that vessel. The other two were tied hands and feet, and kept inland till the French steamer left. The *Styx* threw shot and shell, and the crew landed and burned down the huts and destroyed the property of the natives."

OVERLADEN AND UNSEAWORTHY SHIPS.

The Loss of the Utopia.

THE loss of a fine ship of 1,000 tons or more, with a valuable cargo on board, is so frequent an occurrence now-a-days, and yet the aggregate of such losses forms so small a per-centage to the enormous value represented by safe voyages, that it ordinarily excites little or no attention, and is looked on almost as a matter of course. Indeed, considering the vast commercial intercourse carried on between these islands and all parts of the habitable globe which border on the sea,

and the many vicissitudes and dangers attending navigation, it would be unreasonable to expect that the case should be otherwise. It is only, therefore, under very special circumstances, and when the interests of humanity are at stake, that we feel in duty bound to call attention to the same.

A fine ship, well manned and well found, with every appliance provided, and every precaution adopted to ensure the safety of the vessel and crew, which a prudent, conscientious, and humane ship-owner could devise, might yet be lost, and her crew might perish, from causes which could not be foreseen or provided against—stress of weather and inability to work off a lee-shore, an unknown current, an error in the compass, or a bad look-out at night, might frustrate every precaution and cause the loss of the noblest ship, without the slightest blame attaching to those who owned her.

Unhappily, however, such are not the only causes of loss of ships and lives at sea; and far too many cases occur of vessels being sent to sea that are known to be overloaded or otherwise unseaworthy; thus verifying the Scriptural assertion, that “the love of money is the root of all evil,” and painfully illustrating the melancholy fact, that in this Christian country there are numberless professors of that religion, the highest precept of which, next to the love of God, is abnegation of self and love of others, who frequent its temples and adhere to its ceremonial forms, yet whose hearts are so hardened and minds so poisoned by the love of gold, that the very lives of their fellow-men, and even of their own servants, is a matter of secondary importance to them.

Amongst the fruitful causes of loss of life at sea is that of overloading: and yet it would seem to be one easily preventible, as a safety line of flotation can be readily defined for every ship, and the appointed authorities at every port could readily see that no vessel at the last moment of sailing was immersed below that line.

A case has recently occurred which would seem to imply that, despite the latest legislation for the protection of the lives of British subjects at sea, any unprincipled shipowner or his agent has the power to send, and even to force a well-insured unseaworthy ship to sea, against the judgment and will of her master and crew, to their almost certain destruction.

Such a disgraceful state of things, for the credit of our country and more especially of that of our great and wealthy shipowning community, demands a remedy by searching legislative enactment.

The case we have alluded to is that of the *Utopia*, a ship of 949 tons, which sailed from Liverpool for Bombay on the 10th of March last, and only three days after had to be abandoned by her crew almost at the moment of her foundering. The following statement of the facts of the case we abbreviate from the Report furnished to the Board of Trade by the nautical assessors and stipendiary magistrate who conducted the official inquiry at Liverpool, that was ordered by that Board on the case.

The *Utopia* was built in 1853, and in 1862 she was registered A 1

Red, at LLOYD's, for five years. She had recently changed ownership, and was now the property of a shipowner resident in London. When loading in the Brunswick Dock at Liverpool for the present voyage to Bombay, it appears that she took the ground, and evidently thereby sustained serious damage by straining, as previously she had scarcely made any water, whilst immediately after that event twenty-eight inches was found in her, and on two subsequent occasions as much as forty inches. By the direction of the owners, she was pumped out by the men employed in stowing her cargo, usually at the expiration of each day's work. During the process of loading she was visited by the agent of Lloyd's Salvage Association at Liverpool, and by one of the surveyors of the Mersey Dock and Harbour Board, which latter gentleman offered his advice and assistance to the owner in the stowage of the cargo, mentioned the limits to which she might be safely immersed—viz., 20 feet 6 inches to 21 feet—and *marked the side at the midship section to show the same*, leaving a clear side of 6 feet 6 inches; little enough, we should say, for a voyage to India, looking to the gales of wind and heavy seas which in voyages of such a distance are sure to be encountered. Nevertheless, before leaving the Brunswick Dock, on the 7th March, she was loaded until she was immersed six inches deeper than had been marked as her safe load line, and afterwards, in the Wellington Dock, had 120 tons of coke put on board.

The master, Captain LEAN, then, not liking the position of affairs, and finding that his remonstrances with the owner in regard to the equipment of the vessel for so long a voyage were unattended to, threw up his appointment. On the same day she had been surveyed by the Surveyor to the Liverpool Underwriters' Association, who found she had only five feet of her sides above the water, and was still taking in cargo. He in consequence called in another surveyor, who agreed with him in considering her much overladen, and they so informed Captain LEAN, and subsequently reported it to the Secretary of their Association; but there being no insurance effected in Liverpool, no action was taken. Nevertheless, he again visited her on the 9th, when she appeared to him not to have more than four feet of clear side, and his final report was, that she was scarcely seaworthy, and that he would not like even to cross to Dublin in her in a strong S.W. gale. Yet the owner of this ship felt no hesitation in sending her and her human freight on a voyage to a distant land, during the greater part of which they would be beyond the reach of aid in the only too probable event of foundering at sea.

On the recommendation of a Liverpool agent, Captain J. Dickie was now appointed to the command; but on proceeding on board on the 9th, he naturally enough did not like the appearance of things any more than his predecessor; but in the words of the Nautical Assessors in their Report, "An extraordinary and most unwarrantable pressure was then put upon him to compel him to go to sea, in the shape of a letter written by a ship-broker at Liverpool, and signed by the agent, as follows:—

‘*Liverpool, March 8th.*

‘DEAR SIR,—I am very much surprised to hear that you are making difficulties about going in the *Utopia*; and I must inform you that, if after I have recommended you to the owner, you do not go in the vessel, I will take care you never get any employment in a ship out of Liverpool, if I have any power to prevent you, as I will not put up with this sort of work.

‘Yours truly,

‘*Captain Dickie.*’

‘ * * * * *

A precious epistle this, to be sure! Virtually ordering a man into his grave, and, in the language of honest indignation and offended dignity, threatening him with deprivation of his bread for his contumacy in hesitating to step into it.

And can it be that Liverpool shipowners, at the instigation of a shipping agent, would refuse employment to a British seamen for thus declining to deliberately drown himself and seventeen men? Are they not Englishmen, and, for the most part, nominally at least, Christians, if not Christian gentlemen?

We cannot believe that they would do so; nor can we think that there is any specially demoralizing influence in the business of ship-owning, which should so harden a man's heart as thus to steel it against the common dictates of humanity.

To proceed, however, with our narrative. On the following morning, the 10th March, a Sunday morning, too, when respectable people at Liverpool were all preparing for the public devotions of the day, the “two shipmasters met the owner and his agents, Messrs. * * * and * * * , and the pilot on the landing-stage, with the crew who had been shipped, to the number of seventeen, including six able seamen only, a crew evidently insufficient in number for a full-rigged ship of her size, according to the evidence of several competent witnesses. The riggers had been at work at the pumps in the morning, but had desisted before the crew went on board, not because there was no more water to pump out, but lest, apparently, the latter should get alarmed, and decline to proceed to sea in the ship.”

The pilot, who had expressed his opinion that the vessel was overladen, was asked by the court why he, nevertheless, took her to sea, to the imminent risk of ship and cargo and of eighteen lives? He replied that he was under a penalty to his own boat to undertake the duty, and that had he not done so he would have had to pay it himself.

And thus, bursting, as it were, through every barrier that should have stood between herself and her destruction, heeding not captains, or surveyors, or pilots, but seemingly impelled by some malignant spirit, the *Utopia*, overladen, undermanned, leaky, and ill-found in her equipment, was towed to sea to pursue her hopeless voyage.

Upon the tug leaving, sail was made, the wind being fair, and weather moderate; but so ill-found was the cordage and rope generally, that the topsail halliards had to be unrove to cat and fish the anchor.

Scarcely had they shaped their course when the well was sounded, when three feet three inches of water was found in the hold; some hands were therefore at once placed at the pumps, which from that time were more or less continuously worked. Nevertheless, the water gradually increased, there being on the 11th at eight a.m. four feet ten inches, which was the last correct sounding that could be got, as the pumps became then choked with sand.

During the 12th and 13th the ship was observed to be settling gradually and the wind and sea increasing, the master thought it best to run for Cork, but she had now become unmanageable; and at four p.m. on the 13th, there being then only four or five inches from the covering board to the water's edge, and the ship settling down rapidly, the long boat was hoisted out. All hands were speedily got into it—the master being the last to leave the ship; and scarcely had they got clear of her, when she gave a plunge, and went down head foremost.

Happily the weather was fine, and not having proceeded so far to sea as to be beyond the beaten track of ships, they were picked up on the same evening by a barque, and were all safely landed on the 16th at Crookhaven.

Sad, indeed, are the reflections which the foregoing narrative is calculated to awaken! Whether with reference to the immediate object with which we are specially concerned, “the protection of life at sea,” or to the fair fame of our country, as claiming one of the highest places in the scale of civilized nations; or to the hope of the philanthropist, the progress of human nature itself towards something better and nobler than the past or the present, who can contemplate, without discouragement and misgiving, such a sad example of, we fear, a very prevalent evil? An evil not enacted in a corner, but unblushingly in the light of day; not perpetrated by men from the lowest dregs of society, nurtured in poverty, ignorance, and crime; by members of a class deemed highly respectable, members of our great mercantile community—shipowners and their agents; and being done thus fearlessly and openly; also done, we fear, without their “losing caste,” amongst their fellows.

Is it not then, time, if we wish to retain our high place in the world, not only as a great and powerful nation, and the first commercial and maritime power, but as a conscientious and Christian people, setting a higher value on human life than on gold and silver; is it not time that we so enforce our existing laws, or so amend our maritime code, if necessary, as to make the occurrence of so great a scandal an impossible thing amongst us?

But, indeed, we may take up higher ground still; for in the case of nations, as of individuals, there is a higher than any human tribunal before which national as well as individual acts shall be judged; and if the lives of these eighteen human beings had been sacrificed at the shrine of Mammon—which was so nearly being done—would not their blood have cried aloud to heaven for vengeance, not only on those who could perpetrate so great a crime, but on the community which apathetically suffered such things to be done amongst them?

But, it may be asked, with our enormous trade, how can this discreditable state of things be remedied? We have, in the present melancholy case, a forcible illustration of the fact, that overladen, ill-found, unseaworthy ships can, in one of our greatest maritime ports, proceed to sea on a distant voyage, and that all the constituted authorities of the place are powerless to prevent her doing so. We reply, then give the present constituted authorities such power, or constitute a new authority to be clothed with it.

In the first place, we would suggest that at every port in the United Kingdom, large or small, an officer in connection with the Customs, or Coastguard, or Local Marine Board, or Shipping Office, should periodically, in the case of vessels in the home trade (say half-yearly), and before sailing on each voyage, in the case of ships in the foreign trade, inspect, personally or by deputy, every vessel and her equipment, receiving replies to printed queries, signed by the master, in each case, and giving him in return a permit to sail. The cost of such supervision might be paid in the shape of a small fee on every permit issued, to be paid at the time of issue by the master; or it might be paid from the Mercantile Marine Fund, if there is a sufficient annual amount available for the purpose. At the same time it should be punishable, as a misdemeanour, for the master of any vessel to sail without having received such a certificate; and as felony for him to give false information in reply to the established queries, as to the state of his vessel, and her equipment, etc.

In the second place, to prevent the overlading of any vessel, which is so frequent a cause of unseaworthiness, it should be required that every vessel should have visibly painted on each side a thin white line, showing the level to which she might be safely loaded, and below which it should be illegal to immerse her. Such a line would not be a disfigurement to any ship, whilst, being visible to every one, the authorized surveyors could in a moment tell when any vessel was overladen, without having recourse to actual measurement; and, at the same time, it would be a source of confidence to the passengers and crew in every vessel, and would be a perpetual witness in every part of the world frequented by our ships of the watchful care of the British Government and people for the lives and welfare of the seamen and passengers who work or sail on board them.

We have purposely withheld the names of all the parties implicated in this flagrant transaction, our object not being to expose individuals in a single case, but to draw attention to a crying evil, and so far to aid in its remedy. In the Official Report, however, from which we have taken the details of the case, and which was published in the *Times* newspaper, the names of the several parties are given.

[The foregoing is a good illustration of the manner in which a portion of our boasted mercantile shipping is sailed—the system which can be adopted by unprincipled owners in this country, of forcing their ill found leaky ships to sea. The *Utopia* had not even cat and fish falls for her anchor, but was obliged actually to unreeve

her topsail halliards, and use them as a substitute. What other absolutely necessary stores there were not, or of which she was deficient, may be inferred from that fact. Of what use were the surveys held upon her and reports made, when there was no one to act upon them? The captain wisely refuses to go to sea in her, because she is so deeply laden as to be dangerous; and another is found by a *Liverpool shipbroker*, which latter captain for certain reasons no doubt (notwithstanding he too would give her up), takes her command, after a peremptory reminder from that very considerate gentleman, the broker, who says, "I will not put up with this sort of work," and takes it with about the same calculation as that with which a man would take what was a fair promise of being his death warrant by drowning. Did this considerate broker ever expect to see his gracious document shewn up in the *Times* newspaper? No doubt he did not: with the name of its author too! But there it stands, an imperishable record of the tyranny of our nature, the total absence of all honesty of principle in man for the sake of making money, and of the rottenness of our system in the management of our monster mercantile fleet. We lately quoted a case of purposely scuttling in the *Severn*, many more of which have not yet been brought to light; and here we have a case of wilful destruction just as bad, one being done near the Equator, while the other is done in the light of day at Liverpool!

Was that gentleman, who threatened the captain of the *Utopia* with never taking another ship out of Liverpool, aware that she leaked so much that she was obliged to be pumped out every day while being *overloaded*: that the day she was about to sail the pumping her out was intermitted, lest the crew might take alarm at such a state of things, in a ship they had just embarked in and on the point of sailing?—which ship ought to have been tight and seaworthy? But what cared he for that? his point was gained; and he had got a captain for the craft, leaky or not leaky! Who has not heard of the glorious uncertainty of the law? but what is that to the miserable uncertainty of the British merchant ship; whether she is sailed on honest or dishonest principles! Then we are not told the tonnage of the *Utopia* but the crew of seventeen, including only *six* able seamen, and possibly made up (by law) of two-thirds foreigners, who soon have to work at the pumps, after she has found her way to sea with the assistance of the topsail halliards to cat and fish her anchor!

And what becomes of the *Utopia*? Her leaky condition increases, the miserable pump work cannot keep her free, and she founders!!! Happily in the track of other ships, by which her captain and crew were saved; and it may be reasonably expected that no one loses on that account, for the Insurance Office is quite ready to meet all reasonable demands! And if the captain and the crew should lose their kit, what matters that, for they are of no consequence.

Can we wonder at seamen being reckless who are treated thus—that the whole character of our merchant shipping is degraded by such a system as admits atrocities like these. Is there never to be a

remedy applied to such evils? Who cannot but commend the laudable motives with which enquiries into the losses of our merchant ships were instituted, that mass of annually increasing, wicked enormities, that have long existed; but are they not to be stopped, or is the measure of those that have been thus brought to light not yet full? Surely for the correction of some of those evils, say starving the ship, overlading as in this case, and that of the *Severn* and the *London*, aye and hundreds more, are not these sufficient for nipping these wretched evils? If not, all we can say is, we are sorry for it—if our disgraces must be multiplied let them continue, but the sooner their measure is filled the better will it be for British seamen, and the safety of England, and the character of her merchant shipping.]

A GLANCE AT GENOA.

I took my note book with me on the journey which brought me to Genoa, and pledged myself to make my notes in it. And indeed I did really something of the kind, though the result of my labour is by no means so voluminous as I would like it to be now, when the work of wishing there were more notes is so easy. We spent but one day in Genoa, and I find such a marvellous succinct record of this in my book, that I am tempted to give it here after the fashion of that historical Heavyweight who writes the *Life of Frederick the Great*.

Genoa, Nov. 13.—Breakfast *a la fourchette* excellently and cheaply. I buy a hat. We go to seek the consul, and, after finding every thing else for two hours, we find him. Genoa is the most magnificent city I ever saw; and the monument to Columbus about the weakest possible monument. Walked through the city with consul; Doge's palace; cathedral; girl turning somersaults in the streets; blind madman on the cathedral steps. We leave for Naples at twelve at night.

As for the breakfast, it was taken at one of the many good *cafés* in Genoa, and perhaps some statistician will like to know that for a beef steak and potatoes, with a half bottle of Ligurian wine, we paid a franc. For this money we had also the society of an unoccupied waiter, who leaned against a marble column and looked on with that gentle, half compassionate interest in our appetites which seems native to the tribe of waiters. A slight dash of surprise is in his professional manner, and there is a professional smile on the solemn professional countenance, which is perhaps prompted by a too intimate knowledge of the mysteries of the kitchen and the habits of the cook. The man who passes his life among beef steaks cannot be expected to like them, or to regard without wonder the avidity with which others devour them. I imagine that service in restaurants must beget simple and natural taste in eating, and that the jaded men who minister them to our pampered appetites demand only for themselves—

"A scrip with herbs and fruits supplied ;
And water from the spring."

Turning from this thought to the purchase of my hat, I do not believe that literary art can interest the reader in that purely personal transaction, though I have no doubt that a great deal might be said about buying hats as a principle. I prefer to pass to our search for the consul.

A former consul at some place whom I know, has told me a good many stories about the pieces of popular mind which he received at different times from the travelling public, in reproof of his difficulty of discovery. And I think it must be one of the most jealously guarded rights of American citizens in foreign lands to declare the national representative house to find, if there is no other complaint to lodge against him. It seems to be in a peculiar degree a quality of consulship at that place to be found remote and inaccessible. My friend says, that even at New York, before setting out for his post, when enquiring into the history of his predecessors, he heard that they were one and all hard to find. And he relates that on the steamer going over, there was a low fellow who set the table in a roar of laughter by a vulgar anecdote to this effect :

"There was once a consul at —, who indicated his office hours by the legend on his door, 'In from ten to one.' An old ship captain, who kept coming for about a week without finding the consul, at last furiously wrote in terms of anger under this legend, 'Ten to one you're out!'"

My friend also states, that one day a visitor of his remarked, "I'm rather surprised to find you in. As a general rule, I never do find consuls in." Habitually his fellow countrymen entertained him with accounts of their misadventures in reaching him. It was useless to represent that his house was in the most convenient locality, where indeed no stranger can walk twenty rods from his hotel without losing himself; that their guide was an ass, or their courier a rogue. They listened to him politely, but they never pardoned him in the least; and neither will I forgive the consul at Genoa. I had no earthly consular business with him, but a private favour to ask. It was Sunday, and I could not reasonably expect to find him at his office; or any body to tell me where he lived. But I have seldom had so keen a sense of personal wrong and national neglect as in my search for that consul's house.

In Italy there is no species of fact with which any human being you meet will not pretend to have perfect acquaintance, and of course the driver, whose fiacre we took, professed himself a complete guide to the consul's whereabouts, and took us successively to the residences of the consuls of all the South American republics. It occurred to me that it might be well to enquire of these officials where their colleague was to be found: but it is true, that not one consul of them was at home. Their doors were opened by vacant old women, in whom a vague intelligence feebly guttered, like the wick of an expiring candle, and who after feigning to throw floods of light on the object of my search, successively flickered out and left me in total darkness.

Till that day, I never knew of what a lofty flight of stairs were capable. As out of doors in Genoa it is either all up or down hill, so in doors it is all either up or down stairs. Ascending and descending in one place after another those infinite marble steps, it became a question not solved to this hour, whether it was worse to ascend or descend:—each ordeal in its turn seemed so much more terrible than the other.

At last I resolved to come to an understanding with the driver, and I spent what little breath I had left.—it was dry and hot as the Simoon,—in blowing up that infamous man. "You are a great driver," I said, "not to know your own city; what are you good for if you cannot take a foreigner to his consul's?" "Signore," answered the driver patiently, "You would have to get a book in two volumes by heart, in order to be able to find every body in Genoa. This city is a labyrinth."

Truly it had so proved, and I could scarcely believe in my good luck, when I actually found my friend and set out with him on a ramble through its toils. A very great number of the streets in Genoa are footways merely, and these are as narrow, as dark, as full of jutting chimney places, balconies and open window shutters, and as picturesque as the little alleys in Venice. They wander at will around the bases of the gloomy old stone palaces, and seem to have a vagabond fondness for creeping down to the port and losing themselves there in a certain cavernous arcade, which curves round the water with inflection of the shore, and makes itself a twilight at noon day. Under it are clangorous shops of blacksmiths and sizzling shops of marine cooks, and looking down its dim perspective, one beholds chiefly sea-legs coming and going more or less affected by strong waters; and as the faces to which these sea-legs belong draw near, one discerns sailors from all parts of the world:—tawny men from Sicily and Norway, as diverse in their taw-niness as olive and train oil. Sharp faces from Nantucket and the Pircæus, likewise mightily different in their sharpness;—blond Germans and blond Englishmen;—and now and then a coloured brother, also in the sea-faring line, with sea-legs also, more or less affected with strong waters like the rest.

What curious people are these sea-farers. They coast the whole world, and know nothing of it, being more ignorant and helpless than children on shore. I spoke with the Yankee mate of a ship one day at Venice, and asked how he liked the city.

Well, he had not been ashore yet.

He was told that he had better go ashore, that the Piazza San Mario was worth seeing.

Well, he knew it; he had pictures of it; but he guessed he wouldn't go ashore.

Well, he laid to go ashore the next time he came to Venice.

And so bless his honest soul; he lay three weeks at Venice, with his ship after a voyage of two months, and he sailed away without ever setting a foot on that enchanted ground. I should have liked to stop some of those sea-farers to ask them, what they thought of Genoa.

It must have been in the little streets impassable for horses that the people sat and talked, as Heine fabled, in their doorways, and touched knees with the people sitting on the thresholds of the opposite side. But we saw no gossipers there on our Sunday in Genoa; and I think the domestic race of Heine's day no longer lives in Genoa. For every body we saw in the streets was gaily dressed in their idea of the last fashions, and was to be met chiefly in the public promenades. The fashions were French: but here still lingers the lovely phantom of the old nation and costume of Genoa, and snow white veils fluttered from many a dark head, and caressed many an olive cheek. It is the kindest and most charitable of attire, this white veil: and while decking beauty to the most perilous effect, befriends and modifies age and ugliness.

The pleasure with which I look at the splendour of an Italian crowd in winter, is always touched with melancholy. I know that at the time of its noon day promenade, it has nothing but a cup of coffee in its stomach; that it has emerged from a house as cold, and of light dim as a cellar: and that it will presently go home to dine on rice and boiled beef. I know that chilblains secretly gnaw the hands inside of its kid gloves, and I see in the soreness of its faces the anguish of winter, long suffering from cold. But I also look at many in this crowd with the eye of the economist and wonder how people practising so great self-denial as they, can contrive to make so much display on their little means:—How those clerks of public offices, who have rarely an income of five hundred dollars a year, can dress with such peerless gorgeousness. I suppose the national instinct teaches them ways and means unknown to us. The passion for dress is universal; the men are as fond of it as the women; and happily clothes are comparatively cheap. It is no great harm in itself this display; it is only a pity that there is often nothing or worse than nothing under the shining surface.

We walked with the brilliant Genoese crowd upon the hill where the public promenade overlooks a landscape of city and country, houses and gardens, vines and olives, which it makes the heart ache to behold it is so faultlessly beautiful. Behind us the fountain "was shaking its loosened silver in the sun," the birds were singing; and there were innumerable fair girls going about whom one might have made romances if one had not known better. Our friend pointed out to us the "pink jail" in which Dickens lived while at Genoa, and shewed us on the brow of a distant upland the villa called *Il Paradiso*, which Byron had occupied. I dare say this Genoese joke is already in print—that the devil re-entered Paradise when Byron took this villa. Though in loveliest Italy, one is half persuaded that the devil had never left Paradise.

After lingering a little longer on that delicious height, we turned and went down for a stroll through the city.

My note book says that Genoa is the most magnificent city I ever saw, and I hold by my note book though I hardly know how to prove it. Venice is, and remains, the most beautiful city in the world; but

her ancient rival impresses you with greater splendour. I suppose that the exclusively Renaissance architecture, which Ruskin declares the architecture of pride, lends itself powerfully to this in Genoa. It is here in its best mood and there is little grotesque Renaissance to be seen, though the palaces are as usual, loaded with ornament. The Via Nuova is the chief thoroughfare of the city, and the crowd passes through this avenue between long lines of palaces. Height on height rise the stately sculptured façades, colonnaded, statued, pierced by mighty doorways and lofty windows; and the palaces seem to gain a kind of aristocratic *hauteur* from the fact that there are for most part no sidewalks, and that the carriages rolling insolently through the crowd, threaten constantly to grind the pedestrian up against their carven marble, and immolate him to their stony pride. There is something gracious and gentle in the grandeur of Venice, and much to which the heart loves to cling; but in Genoa no sense of kindness is touched by the magnificence of the city.

It was unspeakable relief, after such a street, to come on a sudden upon the Duomo, one of the few gothic buildings in Genoa, and rest our jaded eyes on that architecture which Heaven seems truly to have put into the thoughts of man together with the Christian faith. Oh beloved beauty of aspiring arches, of slender and clustered columns, of flowering capitals and window traceries, of many carven breadths and heights, wherein all nature breathes and blossoms again! There is neither Greek perfection, nor winning Byzantine languor, nor insolent Renaissance opulence which may compare with this loveliness of yours. Alas, that the interior of this gothic temple of Genoa should abound in the abomination of eococo restoration! They say the dust of St. John the Baptist lies there within a costly shrine; and I wonder that it can sleep in peace amid all that show of bad taste. But the poor saints have to suffer a great deal in Italy.

Outside, in the piazza before the church, there was an idle cruel crowd, amusing itself with the efforts of a blind old man to find the entrance. He had a number of books which he desperately laid down while he ran his helpless hands over the clustered columns, and which he then desperately caught up again, in fear of losing them. At other times he paused, and wildly clasped his hands upon his eyes, or wildly threw up his arms; and then begun to run to and fro again uneasily, while the crowd laughed and jeered. Doubtless a taint of madness afflicted him, but not the less he seemed the type of a blind soul that gropes darkly about through life, to find the doorway of some Divine truth or beauty—touched by the Heavenly harmonies from within, and miserably failing, amid the scornful cries and bitter glee of those who have no will but to mock aspiration.

The girl turning somersaults in another place had far more popular sympathy than the blind madman at the temple door, but she was hardly a more cheerful spectacle. For all her festive spangles and fairy-like brevity of skirts, she had quite a work-a-day look upon her honest blood red face, as if this were business enough though it looked like sport, and her part of the diversion were as practical as

that of the famous captain of the waiters, who gave the act of peeling a sack of potatoes a playful effect by standing on his head. The poor damsel was going over and over to the sound of most dismal drumming and braying in front of the old palace of the Genoese Doges,—a classic building stilted on a rustic base, and quite worthy of Palladio, if anybody thinks that is precise.

There was little left of our day when we had dined; but having seen the outside of Genoa and not hoping to see the inside, we found even this little heavy on our hands, and were glad as the hour drew near when we were to take the steamer for Naples.

It had been one of the noisiest days spent during several years in clamorous Italy, whose voiceful uproar strikes to the summits of her guardian Alps and greets the coming stranger, and whose loud Addio would stun him at parting if he had not meanwhile habituated to the operatic pitch of her every day tones. In Genoa the hotels taking counsel of the vagabond streets stand about the cavernous arcade already mentioned, and all the noise of the shipping reaches their guests. We rose early that Sunday morning to the sound of a fleet unloading cargoes of wrought iron and of the hard swearing of all nations of seafaring men. The whole day long the tumult followed us, and seemed to culminate at last in the screams of a parrot who thought it fine to say, *Piove, Piove, Piove*, it rains, it rains, it rains; and had no doubt a secret interest in some umbrella shop. This unprincipled bird dwelt somewhere in the neighbourhood of the street where you see the awful tablet in the wall devoting to infamy the citizens of the old republic that were false to their country. The sight of that pitiless stone recalls with a thrill the picturesque, unhappy past, with all the wandering, half-benighted efforts of the people to rend their liberty from now a foreign and now a native lord. At best they only knew how to avenge their wrongs; but now, let us hope, they have learnt with all Italy to prevent them. The will was never wanting of old to the Ligurian race, and in this time they have done their full share to establish Italian freedom.

I do not know why it should have been so surprising to hear the boatman who rowed us to the steamer's anchorage speak English; but after his harsh Genoese profanity in getting his boat into open water it was the last thing we expected from him. It had somehow the effect of a furious beast addressing you in your native tongue and telling you it was "wary poorly widder;" and it made us cling to his good nature with the trembling solicitude of "Little Red Riding Hood" when she begins to have the first faint suspicions of her grandmother. However our boatman was no wild beast but took our six cents. of *buonamano* with the base servility of a Christian man, when he had put our luggage into the steamer. I wonder how he should have known us for Americans? He did so know us, and said he had been at New York in better days, when he voyaged upon higher seas than those he now navigated.

On board we watched with compassion an old gentleman in the making a hearty meal of sardines and fruit pie, and I asked him

if he had ever been at sea. "No," he said. I could have wept over that innocent old gentleman's child-like confidence of appetite, and guileless trust of the deep.

We went on deck where one of the gentle beings of our party declared that she would remain as long as Genoa was in sight; and to tell the truth, the scene was worth the promised devotion. There in a half-circle before us, blazed the lights of the quay; above these twinkled the lamps of the steep streets and climbing palaces; over and behind all, hung the darkness on the heights;—a sable cloud dotted with ruddy points of flame burning in the windows of invisible houses.

Merrily did we drop "down the bay," and presently caught the heavy swell of the open sea. The other gentle being of our party then clutched my shoulder with a dreadful shudder, and after gasping, "Oh, Mr. Scribbler, why will the ship roll so?" was meekly hurried below by her sister, who did not return for a last glimpse of Genoa the Grand. In a moment Heaven's sweet pity flapped away as with the sea gull's wings, and I too felt that there was no help for it, and that I must go and lie down in the cabin. With anguished eyes I beheld on the shelf opposite to mine, the innocent old gentleman who had lately supped so confidently on sardines and fruit pie. He lay on his back, groaning softly to himself, "Oh those sardines, that dreadful pie."—*Atlantic Monthly*.

CORRESPONDENCE.

To the Editor of the Nautical Magazine.

Sir,—The Secretary of "Lloyd's Salvage Association" has done me the favour to send me a copy of his "Rule of the Road for Steamers," and without at present entering into an examination of this brief graphic exposition of a most important nautical problem, I wish, without delay, to commend to the careful attention of my brother commanders the valuable remarks in page 10 lines 9—18. I venture to say that in these remarks alone, Mr. Harper has rendered a service to the Maritime interests of the country, apart from the merits of his "Rule" as a contribution to nautical science. W. C. P.

EVILS OF OUR EMIGRANT SERVICE AFLOAT.

June 1st, 1867.

Sir,—The subject of the *treatment* and *condition* of *emigrants* proceeding from this country to the Australian colonies, is one of public interest. May I ask for a small space in your journal to suggest a remedy for what has long appeared a disgrace to England? It is well-known that on board some emigrant ships, there have been very grave causes for complaint, sometimes from an insufficiency or

bad quality of provisions, from being short of water, from imperfect ventilation, and sometimes from gross unchecked immorality! I will not occupy your time by citing particular instances, but will proceed at once to the object of this letter.

According to the present system, all government supervision ceases so soon as an emigrant ship quits these shores. What I desire to suggest is simply that at each port in the colonies there be an officer, appointed by the local government, whose duty should be to board every emigrant ship upon her arrival, and muster the passengers before anyone is permitted to land, for the purpose of receiving any statement of well-attested bad treatment, if such has occurred on the passage. In any case where the charge of bad treatment is established, such ship not to be allowed to clear at the Customs until reparation be made to the injured parties. I may mention that I have had some experience in the emigrant service, and am convinced of the necessity of a better system than that which we have. Half the ships that leave England for Australia with emigrants, while looking all right and comfortable in dock cannot be ventilated at sea in rough weather, and we know that the inspection of provisions by the government officer before leaving England is of necessity very imperfect, whether we regard the quality or quantity. I am therefore persuaded that the only effectual remedy for the evils existing in our emigrant service, is the *certainly* of owners and commanders having to make satisfaction to injured parties, on the ship reaching her destination.

When we consider the thousands of our fellow-subjects whose comfort, health, and safety, are involved in this question, I feel, sir, that you will be doing the country generally an essential service, by your advocacy of any measure calculated to effect a better state of things on board emigrant ships employed between England and her Australian, and all other colonies.

W. C. P.

[We commend the foregoing suggestion to the Emigration Department, and are of opinion that not only is the proposal good but that such appointment might be made by the home government—and also that such supervision in the absence of an officer appointed for the purpose, might be a part of the duty of our naval officers abroad until such appointments are made. Many an evil would thus be shewn up and rectified.—*Ed.*]

H.M.S. Britannia, Dartmouth,

June 23rd, 1867.

Dear Sir,—I send a small contribution which supplies a quick and easy way of reducing the Sun's altitude to the Meridian, and may be found useful in those latitudes where cloudy weather prevails, and when it is unwise to rely totally upon the chance of obtaining the Meridian altitude.

TABLE

For the Reduction of the Sun's Altitude to the Meridian at Sea.

M.S.	N.	M.S.	N.	M.S.	N.	M.S.	N.	M.S.	N.	M.S.	N.	M.S.	N.	M.S.	N.	M.S.	N.	M.S.	N.
20	0.1	9.0	2.7	12.0	4.4	15.0	7.4	18.0	10.6	21.0	14.5	24.0	18.9	27.0	24.0	30.0	29.5	33.0	35.7
30	1.3	15	2.8	13	4.9	15	7.6	15	10.9	15	14.8	15	19.3	15	24.4	15	30.0	15	36.3
40	0.5	30	1.9	30	5.1	30	7.9	30	11.2	30	15.2	30	19.7	30	24.8	30	30.5	30	36.8
50	0.6	45	3.1	45	5.3	45	8.1	45	11.5	45	15.5	45	20.1	45	25.3	45	31.0	45	37.4
60	1.1	10.0	3.3	13.0	5.5	16.0	8.4	19.0	11.8	22.0	15.9	25.0	20.5	28.0	25.7	31.0	31.8	34.0	37.9
30	1.4	15	4.4	15	5.7	15	8.7	15	12.1	15	16.2	15	20.9	15	26.2	15	32.0	15	38.5
70	1.6	30	4.6	30	5.9	30	8.9	30	12.5	30	16.6	30	21.3	30	26.6	30	32.5	30	39.1
30	1.8	45	3.8	45	6.2	45	9.2	45	12.8	45	17.0	45	21.7	45	27.1	45	33.1	45	39.6
80	2.1	11.0	4.0	14.0	6.9	17.0	9.5	20.0	13.1	23.0	17.3	26.0	22.2	29.0	27.6	32.0	33.6	35.0	40.2
15	2.2	15	4.1	15	6.6	15	9.8	15	13.4	15	17.7	15	22.6	15	28.1	15	34.1	15	40.7
30	2.4	30	4.3	30	6.9	30	10.1	30	13.8	30	18.1	30	23.0	30	28.6	30	34.6	30	41.3
45	2.5	45	4.5	45	7.1	45	10.3	45	14.1	45	18.5	45	23.5	45	29.0	45	35.2	45	41.9

EXPLANATION.

- (1) For the ship apparent time from Noon, take out N.
- (2) With N. as dist. and latitude as course, find diff. lat. (Traverse Table).
- (3) The distance corresponding to this diff. lat., and the altitude as a course) will be the correction which being added to the observed altitude near Meridian, gives the Meridian altitude.

Examples.

Given app. time from Noon, 20m. 15s., lat. D.R. 50° N., alt. near Meridian 40° 10' : to find the Meridian alt.

- (1) 20m. 15s. gives 13.4 for N.
- (2) 13.4 as dist. and lat. 50° as course, give 8.6. diff. lat.
- (3) 8.6 diff. lat. and alt. 40° as course, give 11.2 dist. This is the correction.*

Hence, as the obs. alt. is .. 40° 10'
and correction + 11

The altitude, reduced to the Meridian, is .. 40 21

The latitude is then found by the ordinary Meridian Altitude Rule.

* Where much accuracy is required, diminish this correction by the following fractional parts of itself :

For Declination ... 0° 8' 12' 14' 16' 18' 20' 22' 24'
Subtract ... 0 1/100 1/100 1/100 1/100 1/100 1/100 1/100 1/100

Thus, to find a true correction in the above examples:—supposing the Declination to be 12°; $11.2 \times \frac{1}{100} = .112 \times 2 = .2$.

Therefore, $11.2 - .2$ or 11 is the true correction.

Believe me, dear sir, yours faithfully,

A. C. J.

NOVELTIES—PAST, PRESENT, AND FUTURE.

LET us take the last first:—the *on dits*, which modestly range themselves in the rear, although they may possibly be realized and entitled to the van in the history of every day events. We will therefore begin our monthly record with the anticipated naval review as the great event for July, to be celebrated, it is said, by the last glimpse of England's wooden walls in their domain of salt water, now that our antiquated castles are to be turned over to the domain of history. We read in the *Hampshire Telegraph*, of Portsmouth celebrity, that:—“The First Lord of the Admiralty has officially notified to the Mayor of Portsmouth that there will be a review of the British fleet off Portsmouth in July next, and it is reported that the days fixed upon will be the 15th, 16th, and 17th of that month.” It also says:—“The ships to be reviewed will, no doubt, consist of the Channel squadron, now under the command of Rear-Admiral F. Warden, in the *Minotaur*, the ships in commission for harbour and coast-guard duty, and all the gunboats that may be available at the time. The magnificent three-decker *Victoria*, which was brought into harbour on Saturday to dismantle and pay out of commission, having completed the term of her service as flag-ship in the Mediterranean, will probably also take part in the review, the order for dismantling and returning stores having been countermanded. She is in splendid condition, and one cannot help regretting that she is the last of the three-deckers which we shall have an opportunity of seeing in commission for active sea service. We believe that the *Valiant*, 18, iron screw-frigate, will also be brought forward for the same purpose. The fleet is expected to assemble at Spithead about the 9th of July. It is understood that this naval spectacle is to be in honour of the visit of the Sultan of Turkey to England, and we believe that it will be conducted on a grand scale.”

THE NAVAL REVIEW AT SPITHEAD.—The following is a copy of official list of the vessels selected by the Admiralty to take part in the great Naval Review to be held off Spithead, on the 17th of July, in honour of the visit of his Majesty the Sultan to England:—

IRONCLAD SQUADRON.

Names.	Guns.	Tonnage.	Horse-power.	Captain.
Minotaur ..	26 ..	6,621 ..	1,350 ..	Capt. J. G. Goodenough.
Achilles ..	26 ..	6,121 ..	1,250 ..	Capt. E. W. Vansittart.
Lord Clyde ..	23 ..	4,067 ..	1,000 ..	Capt. R. Dew, C.B.
Bellerophon ..	14 ..	4,270 ..	1,000 ..	Capt. E. Tatham.
Warrior ..	32 ..	6,109 ..	1,250 ..	.. ..
Black Prince ..	41 ..	6,109 ..	1,250 ..	Capt. J. Corbett.
Valiant ..	24 ..	4,063 ..	800 ..	.. ..
Pallas ..	6 ..	2,372 ..	600 ..	Capt. M. Connolly.

Names.	Guns.	Tonnage.	Horses-Power.	Captain.
Royal Sovereign, turret ship..	5 ..	3,765 ..	800 ..	.. ..
Prince Albert, turret ship..	4 ..	2,537 ..	500 ..	.. ..
Wivern, turret ship	4 ..	1,899 ..	350 ..	Capt. H. T. Burgoyne, V.C.
Research	4 ..	1,253 ..	200 ..	Commander W. B. Grant.
Viper, twin screw	2 ..	737 ..	160 ..	.. ..
Vixen, twin screw	4 ..	754 ..	150 ..	.. ..
Waterwitch, hy- draulic propelled ..	— ..	770 ..	..	Commander P. R. Sharpe.

UNARMoured SQUADRON.

Victoria	102 ..	4,127 ..	1,000 ..	Capt. F. P. B. Seymour, C.B.
Duncan	81 ..	3,727 ..	800 ..	Capt. R. Gibson.
Donegal	81 ..	3,245 ..	800 ..	Capt. J. A. Poynter.
Revenge	73 ..	3,322 ..	800 ..	Capt. G. Le Bowyer.
Royal George..	72 ..	2,616 ..	800 ..	Capt. T. Miller.
St. George	72 ..	2,864 ..	500 ..	Capt. E. B. Rice.
Irresistible ..	60 ..	2,642 ..	400 ..	Capt. J. Borlase, C.B.
Lion	60 ..	2,611 ..	400 ..	Capt. J. M. Hayes, C.B.
Princess Royal	73 ..	3,129 ..	400 ..	.. ..
Mersey	37 ..	3,733 ..	1,000 ..	.. ..
Liffey	31 ..	2,654 ..	600 ..	.. ..
Liverpool	35 ..	2,656 ..	600 ..	Capt. J. Seccombe.
Phoebe	35 ..	2,896 ..	500 ..	.. ..
Dauntless	31 ..	1,575 ..	580 ..	.. ..
Sutlej	35 ..	3,060 ..	500 ..	Capt. F. P. Cooode.
Seylla	21 ..	1,467 ..	400 ..	.. ..
Terrible, paddle	19 ..	1,850 ..	800 ..	.. ..
Gladiator, paddle	6 ..	1,210 ..	450 ..	.. ..
Nymph	4 ..	1,084 ..	300 ..	.. ..
Daphne	4 ..	1,081 ..	300 ..	.. ..

UNARMoured GUNBOATS.

Lee	2 ..	250 ..	60 ..	.. ..
Stork	2 ..	250 ..	60 ..	.. ..
Fancy	2 ..	250 ..	60 ..	.. ..
Pigeon	2 ..	250 ..	60 ..	.. ..
Redwing	2 ..	250 ..	60 ..	.. ..
Clinker	2 ..	250 ..	60 ..	.. ..
Bullfrog	2 ..	250 ..	60 ..	.. ..
Fervent	2 ..	250 ..	60 ..	.. ..
Orwell	2 ..	250 ..	60 ..	.. ..
Magnet	2 ..	250 ..	60 ..	.. ..
Pheasant	2 ..	250 ..	60 ..	.. ..
Hyæna	2 ..	250 ..	60 ..	.. ..

The ironclad squadron will thus consist of seven screw frigates, three screw turret ships, one screw sloop, two twin screw gun vessels, and one hydraulic propelled gun vessel, carrying altogether 219 guns, on 51,454 tons measurement of hull, and propelled by a nominal engine power of 10,837 horses.

The unarmoured squadron consists of one screw three-decker, eight screw two-deckers, six screw frigates, one screw corvette, one paddle sloop, two screw sloops, and twelve screw gunboats, carrying altogether 956 guns on a tonnage of 54,549, propelled by a nominal engine power of 12,250 horses.

Grand totals :—Number of vessels, 47 ; number of guns, 1,175 ; tonnage, 106,000 ; nominal power of engines, 23,087 horses.

All the vessels on mustering at Spithead will fill up with best Welsh coal to burn during the review.

The screw line-of-battle ship Princess Royal is on her way home from China, and the screw frigate Sutlej is on her way home from Rio Janeiro. Both vessels are expected to arrive home in time to take part in the review, and their names have, therefore, been included in the official list.

The screw transport Serapis, Captain Soady, has been appropriated for the service of the members of the House of Commons on the day of the review ; and her sister ship, the Malabar, Captain Pickard, will, it is understood, be placed at the service of the members of the upper branch of the legislature. The Admiralty ensign will be hoisted on board their lordships' paddle yacht Enchantress, and the commanding Admiral-in-Chief of the Fleet, Sir Thomas Pasley, G.C.B., will, according to existing arrangements, hoist his flag on board the screw three-decker Victoria.

Our readers who well remember the review of 1856 will find a chart in our May number of that year (p. 263) that will be suitable to them on this occasion. It is said to have been ordered in honour of the Sultan, who is to be the guest of the Lords Commissioners of the Admiralty on the occasion. Will the emperor of China be present ? for the *Journal du Havre* affirms, and with perfect seriousness, that the Emperor of China, having been invited by an autograph letter from Napoleon III., will leave his own country towards the middle of July, embark in a steamer of the Messageries Impériales, pass by the Isthmus of Suez, and land at Marseilles near the end of the second week in August. The Chinese sovereign, the same journal affirms, will be lodged and entertained during his stay in Paris at the expense of the Emperor of the French. All we can say is *nous verrons*.

Another novelty is to come from New York it is said, verily our American friends are determined as usual to be going ahead. They are to astonish the French at Havre with a swift sailing raft, which seems likely to complete her run across the Atlantic so as to run up to Paris before the last days of the "*Exposicton*." We trust most sincerely she will do so, and perhaps the French will not be so impolite as to doubt the fact of the *Nonpareil* really making her voyage

as we so ungraciously did that of the *Red, White, and Blue*, which was exhibited at our Crystal Palace last year and is said to be at Paris, where she will welcome her sister prodigy when she arrives. The following announcement has been in the papers of late:—The life-raft Nonpariel sailed from New York on the 4th instant, for Havre, with a view to demonstrate the safety and security of a floating structure built on the principle of a life-saving apparatus. She is commanded by Captain John Mike, who with the two men compose the crew. The Nonpariel is schooner-rigged, and is composed of three parallel air cylinders shaped like cigars, which form what in a vessel would be called the hull. These cylinders are twenty-five feet long, and twenty-six inches in diameter, being composed of gutta percha encased in Russia duck, the outer casing being less in circumference than the inside air chamber, and thus receiving the greatest strain. The Crew have great faith in her buoyant power, having seen it tested on the coast in such a manner that they regard a trip across the ocean as a possibly agreeable incident, but entirely without danger. A large assembly was in attendance to see her start. The passage across was expected to be made in fourteen or fifteen days.

Of these two vessels we may say *Finis coronat opus*: they were sent for a purpose, one of trial, which we trust will be acknowledged sufficiently successful. But for experiments out of the way of the old beaten track of our forefathers commend us to the Yankees.

While we are on pleasure aquatics there is yet another novelty or two before us. The Yankee steamer *Quaker City*, with between 200 and 300 passengers on board, is expected shortly in the Mediterranean on a trip of pleasure to the different ports of interest in Spain, France, Italy, Greece, Turkey, and the Holy Land. Among those who have taken this means of visiting the ports of the Mediterranean and the East is General W. P. Sherman, of the United States' army, whose important services during the late civil war are so appreciated by the government that a circular has been sent to the ministers and consuls abroad to inform them of General Sherman's movements, and adding that any attentions show to him by foreign powers will be gratefully acknowledged. Major-General Banks, who represents Massachusetts in Congress, is also among the passengers.

But we should have said first that the latest advices from China are to the effect that six ships have entered for the *Tea* race to England, viz, the Ariel, Serica, Taitsing, Taeping, Sir Launcelot, and Black Prince. Although the Ariel won the run home last year by a neck, the shippers of the new season's teas this year have to a certain extent transferred their favours to the Black Prince as the winner, but still retain the fast ship of last year's race as a favourite for a place.

But we will conclude these speculations about yachts and ocean racing with the following general statement of yachts.

The English Yacht Clubs number 1,789 yachts; the New York Yacht Club, 39 yachts; the Society of Paris Sailing Club, 16; the Windermere Sailing Club and Royal Swedish Yacht Club, 15 each;

Le Cercle Nautique de la Méditerranée and the Imperial Yacht Club of St. Petersburg, 12 each; the Royal Canada Yacht Club, 10; and the Royal Sydney Yacht Squadron, 7; the names of the English royal yachts are the Victoria and Albert, Alberta, Elfin, Osborne, Black Eagle, Dagmar, and Viking.

A very silly affair has been ventilated (for when papers do get hold of matters they make the most of them) but which had been much better corrected within the precincts where it originated than getting abroad, called practical joking on board the *Phœbe*. However, it got into the House of Commons for it was treated seriously by the Admiralty, the effect of which we have no doubt will be effectually to put down what Basil Hall would have called Midshipmen's pranks, for boys will be boys, and we need only say that such practices were unknown to the Service of half a century ago, and if ungentlemanly treatment be allowed to spring up of young officers in the naval service, and is carried on unknown to their commanders, the more it is to be regretted. Sooner or later such proceedings if they are not at once quashed by the executive and principals of the ships in which they are instituted, why sooner or later they will come before the world and be deprecated as this of H.M.S. *Phœbe* has been. However it is gone by and we hope to hear no more about it or any other boys' tricks like it.

Let us turn to our Merchant Shipping again and ask what has been done to put down the scourge of that Shipping called Scurvy. The answer to our question would of course be, laws have been passed to abolish it, and so they have been to abolish many other evils—yet they thrive and go on as usual, and Scurvy in its time has been among the number, but here it is just as rife as ever. The following has just appeared in a paper called the *Panama Star* under the head Peru.

"We have repeatedly called attention in our columns to the health of ships' crews arriving at this port from Aden. It is again our painful duty to report the arrival a few days since of two British ships, having on board twenty-two hands suffering from scurvy. They were immediately removed to the British Hospital. Most unfortunately it has too frequently been the case that the men have reached this port with the disease in such an advanced stage that a cure was impossible. We refer to the question in the earnest hope that the British public will be aroused to a full sense of the dangers to which our seamen are thus needlessly subjected, and never rest satisfied till a remedy has been provided. The lives of our sailors are too important and by far too precious to be sacrificed because shipowners are mean and niggardly, and shipmasters careless and indifferent. We have the authority of the *Lancet* for maintaining that scurvy is a preventible disease."

All this is too true—for the fact that scurvy is unknown at sea in Her Majesty's ships, but is confined to British ships is too true a confirmation, and may be classed among the rest of the pleasures which

our seamen have to look for in our Merchant service, such as pumping, foundering, short handedness, ill-treatment, etc., etc.

It has been said of scurvy in the House of Commons, by Mr. Cave, in reply to Alderman Salomons, that, "It was formerly common on land, especially in garrisoned towns, but it was now almost unknown in the British navy, and also in the French navy and their mercantile marine, though it was still met with in the British mercantile marine. By the Acts 7 and 8 Vic., and 17 and 18 Vic., certain ships were compelled to carry lime juice on board, and the masters of those ships were compelled to serve out the lime juice to the crews after they had been living for ten days on salt provisions. The inspectors formerly appointed by the Board of Trade had been placed under the control of the Mercantile Marine Board, and the latter board had last year declined to appoint inspectors. There were two evils at work—the adulteration of the lime juice, and its stowage in improper vessels, where it was spoilt. The Acts of Parliament gave no power to inspect the stores where the lime juice was deposited, nor was there any provision to ensure the lime juice being carried in proper vessels. The noble Duke the President of the Board of Trade intends to bring in a measure for the purpose of remedying the existing defects of the law."

There can be no doubt that the sooner stringent measures are adopted the better. But we very much doubt whether all the Acts of Parliament that can be passed, will root the evil and *its sources* from our mercantile shipping.

We just learn from Gibraltar some interesting accounts of H.M.S. *Galatea* commanded by His Royal Highness the Duke of Edinburgh, who may now be said to have commenced in earnest his voyage round the world.

The departure of the *Galatea* with his Royal Highness from Gibraltar on the 11th of June, was attended with all the pomp and circumstance befitting the occasion and the important errand upon which the *Galatea* is bound—to circumnavigate the world and carry a Royal Duke in the footsteps of Cook and Anson—a Royal Duke and his fortunes; for the Prince may now be said to have cut the ropes which held him to the shore, and to be fairly embarked in his own ship to discharge a difficult and responsible duty. In the afternoon of his departure his Royal Highness, attended by Lieut. Haig, R.E., the Equerry in Waiting, went on shore to "bid farewell" to the Governor, Sir Richard Airey. He was received as he landed on the New Mole Stairs with a royal salute, and a guard of honour, furnished by the 83rd Regiment, was drawn up in front of the Convent, once, in days of Spanish ownership, the residence of the nuns of Santa Clara, now the British Government House. After bidding farewell to his Excellency and Lady Airey, the prince returned to the New Mole in one of the Governor's carriages, accompanied by Sir Richard, and escorted by Major-General Crutchley and the rest of the staff-officers of the garrison. The Royal salute was repeated as his Royal Highness

left the Mole and crossed the gangway to go up the side of his ship.

It was not till past two in the afternoon that the *Galatea* quitted her moorings. As soon as the anchor was up, and just as the screw made its first revolution, the Royal Standard was hoisted at the main. The flag at the truck was the signal for the men-of-war to dress ships, and for another Royal salute from the battery on shore. The presence of the Admiral of the Mediterranean Fleet and other chances had brought together an unusual number of ships of war. The Bay of Gibraltar has seldom been so well filled since the days of the siege, not even lately when trouble seemed imminent with Spain. In addition to the Admiral's flag-ship the *Caledonia*, there were lying off the New Mole the *Ocean*, the *Arethusa*, the *Psyche*, the *Trinculo*, the *Skylark*, the *Redpole*, and an Italian screw frigate, the *Principe Humberto*, which last-named ship joined in all the demonstrations in honour of the English Prince. The *Galatea* steamed slowly under the stern of the *Arethusa*, and on passing the flag-ship the signal was made for "Royal salute and man yards." The crew lay out with wonderful quickness along the yards, and the ships thundered an almost simultaneous volley. As broadside followed broadside in rapid succession, the slow moving masses of dense white smoke hung low upon the water, almost concealing the hull of the ships, and then gradually stealing upwards, hid all but the Royal yards and the trucks of the masts. For a few moments all remained thus enveloped, till a light breeze blew aside the thick veil, and one by one the ships stood out clear and distinct against the thick wall of smoke rolling away behind.

The *Galatea* passed slowly on, and when clear of the fleet lay to in order to allow the Admiral, Lord Clarence Paget, C.B., and all the post captains to go on board. After an interchange of adieus the Admiral went on board the *Psyche*, and steamed alongside the *Galatea*, intending to accompany the Prince's ship as far as Tangier. After a short delay the *Galatea* picked up her boats employed at the New Mole, and then steering for Cape Spartel, started on her long cruise. From Madeira she proceeds to Rio Janeiro. As the whole voyage will be made under canvas it is advisable to get the benefit of the trade winds. At the Cape the Prince will remain a month. There is no programme made out as yet of the probable proceedings on arrival in Australia, but it is known that the *Galatea* will come home round Cape Horn, and that she may be expected in England in the course of twelve months.

We have adapted the foregoing from the *Times* according to probabilities, for we consider it highly improbable the *Galatea* will visit the Mauritius—for it is *not* in her way to Australia.

Looking in the direction of Singapore, we find that energetic scientific officer, Captain Brooker, arrived there early in May, in command of H.M.S. *Sylvia*, on his way to Japan, where his services in improving the hydrography of that land are much required. It appears that she

touched at the Cape and Trincomalee, and visited the Andaman Islands in search of Adnaman rock. The rock was found about sixty miles from land. It is about the size of a table on an invisible bank, and stands eight feet out of the water at low tide.

It is likely enough on a bank connecting the Andaman and Nicobar islands, and being thus isolated is most dangerous. She then proceeded to the Little Andaman to learn particulars of the murder of the crew of the English merchant ship *Assam Valley*. It was discovered that the Little Andaman islanders were notorious pirates and murderers, and it is expected that the Indian government will send a strong force down to deport the scoundrels. The *Sylvia* then touched at Martaban, and sounded the Malay coast for the telegraph cable from India to China through the Malacca Straits. She would leave Singapore shortly for Saigon, Hong Kong, the Formosa coast, and Japan. Her Majesty's ship *Pearl*, on her way to Borneo, and her Majesty's ship *Salamis*, on her way to Sarawak, both met with some damage by striking on the Dido rock.

THE TRAINING SHIP WORCESTER.

Of late years an opinion has generally prevailed that the mercantile marine is not so well officered as befits the character of the British commanders. To remedy this defect a number of persons connected with the port of Liverpool, set on foot a college for the training of young gentlemen for the merchant service. The conspicuous success which has attended the *Conway* has led to an imitation of the experiment in the Thames. For this purpose the government in 1862 presented the Committee with the frigate *Worcester*, which has since been moored off Erith. During the four years 365 pupils have been entered, of whom 240 have completed their education, leaving 125 still on board. On the 22nd of June, the annual distribution of prizes was made by Sir John Pakington, M.P. Mr. Cave, M.P., and Sir John Hay, M.P., were also present; and letters of regret were received from the Duke of Richmond, Mr. Henley, M.P., and other distinguished public men. The company, which was very numerous, consisted of friends of the pupils and of gentlemen interested in the Institution, for whose accommodation the saloon steamer *Palmerston* was specially chartered. The chair having been taken by Mr Cave, honorary secretary, Mr. W. M. Bullivant, read the reports of the examiners—Mr. Snell, mathematical and nautical master at the Royal Hospital schools, Greenwich; Captain John Domett, of the Local Marine Board; and Captain Comber, R.N.; as well as of Captain Whitby, the commander of the ship, and Mr. Read, the head master. They were all of a most satisfactory character.

Sir John Pakington then presented the prizes, which were of an

unusually valuable character, and afterwards warmly congratulated the school on the excellent character that had been given it by the examiners, on whose reports he felt he could place entire reliance, because they had evidently not fallen into the error sometimes committed by examiners, namely, that of giving indiscriminate praise. He must also congratulate the scholars on their appearance. Unless they had adopted the fashion of the army, and put the best looking fellows in the front, he must say he had never seen a jollier or a more promising set of lads before. It was his great good fortune, seven or eight years ago, to recommend the grant of the *Conway* for a training ship at Liverpool, and he trusted that the *Worcester* would emulate the success which had attended that experiment in the Mersey. Although no longer at the Admiralty, he should always be ready to render the *Worcester* any service in his power, and he trusted that it would tend to cement those feelings of amity and brotherhood which ought to subsist between officers of the Royal Navy and those of the mercantile marine.

Mr. Henry Green, as a member of the committee, expressed his acknowledgment to Sir John Pakington for the kind terms in which he had spoken of the institution. They were indebted to a Whig government for the ship, but he must say that that government had "scamped" the fittings. After the remarks of Sir John Pakington, however, the committee would feel no delicacy in applying to a conservative administration if they should stand in need of any assistance in the shape of repairs. The chairman announced that her Majesty had been graciously pleased to grant the same prizes to the *Worcester* as she annually gave to the *Conway*, viz., a gold medal and also a cadetship in the royal navy with a binocular glass worth five pounds, and thirty-five pounds towards the boy's outfit.

Before returning to London the *Palmerston* stopped at Greenhithe, for the purpose of paying a visit to another training ship of a very different character. This was the *Chichester*, a 50 gun frigate, which was presented by the government in October last to the committee of the Refuge for Homeless and Destitute Boys. When full the vessel would accommodate two hundred lads, but at present the funds at the disposal of the committee only allow them to admit half that number. When the *Palmerston* came alongside the boys manned the yards, and were afterwards drawn up on deck. It was touching to contrast them with the scholars of the *Worcester*. The average expression of a *Worcester* and *Chichester* boy shows that class distinctions in English society do in their extremes amount to differences between castes. Nobody would ever have supposed that the *puer ingenui vultus*, and the boy whose very countenance spoke of hereditary ignorance and neglect—in short, of hereditary street life—could belong to the same national race. The company subscribed fifty pounds, which will enable three more of the poor, lost, degraded urchins of the metropolis to be rescued from a life of misery and vice, and placed in the way of earning an and respectable subsistence.

Nautical Notices.

[Communications for the Editor of the *Nautical Magazine* to be addressed to him at 81, Poultry.]

PARTICULARS OF LIGHTS RECENTLY ESTABLISHED.

(Continued from page 348.)

Name.	Place.	Position.	F. or R.	Ht. in Ft.	Dist seen Mls	[Remarks, &c. Bearings Magnetic.]
29. England, East Coast	Spurn Low Light	... ..	...	...	...	To be changed to red. Est. 1st September, 1867. See note (a.)
	Orfordness Low Light	... ..	...	...	...	Ditto, also to be red. Est. 1st Sept., 1867. See note (b.)
	Dungeness	... ..	...	...	...	A red Light established. See note (c.)
	Weymouth	... ..	...	...	...	Two red Lights. See note (d.)
30. France, West Coast	Normontiers Island	47° 0' 5 N. 2° 13' 3 W.	F.	111	10	Est. 25th May, 1867, on Point de Dames. See note (e.)
	Point Grouin du Cou Do. Pertuis Breton	46° 20' 7 N. 1° 28' W.	F.	92	10	See note (f.)
31. Aden	Gulf of Aden	12° 45' 4 N. 45 4' E.	F.	244	20	See note (g.)
32. St. Augustine	Florida, U.S.	29° 50' 7 N. 81° 19' 3 W.	F.A.	71	13	Re-est. 1st June on N. end of Anastasia Island 20 seconds between flashes.
Cape Lanaveral	...	...	F.	...	...	Re-est. 1st June: expected, temporary
Bokel Cay	Belize Coast	...	...	...	...	Reported not to exist.
West Indies	...	...	...	...	...	...
33. Mortar Is- land, Adriatic	Pt. Augusto	44° 35' 3 N. 14° 25' E.	F.	36	9	Est. 17th August, 1867, Light white and red. See note (h.)
Santa Croce rock	Coast of Italy	41° 52' N. 16° 12' 5 E.	F.	131	15	Est. 6th May, 1867. See note (i.)
Leghorn	Meloria Bank	43° 32' 7 N. 10° 13' E.	F.	60	11	Est. 15th May, 1867. R.S.D.
Ditto, South Light	On Break-water	...	...	...	...	Est. 15th May, 1867. See note (j.)
34. Little Garras Island	Rio Strait, West Coast	0° 46' N. 104° 21' 5 E.	F.	118	8	Est. not stated.
Takolai Is.	Ditto	0° 58' 7 N. 104° 19' 5 E.	F.	41	8	Ditto
Sauw Island	Ditto	1° 4' 5 N. 104° 10' 3 E.	F.	118	8	Ditto
East Extr.	...	...	...	...	...	...
35. Spithead	...	...	...	...	...	Temporary. See note (m.)
36. Cape Del Armi	Messina Strait	37° 57' 3 N. 15° 41' E.	F.	312	13	Est. 1st June, 1867, See note (n.) On Italian shore.
Messina Port	Ent. of Port	...	...	64	...	Now in the S.E. angle of fort San Salvatore.
37. Bay of Fundy	Gannet Rock	...	...	...	...	Will disappear from 9th July to 1st August, 1867. See note (o.)
United States	Point Judith Light	...	...	...	...	On 1st June will have a Fog-signal-trumpet.

F. Fixed. F.A. Fixed and Flashing. R. Revolving. I. Intermitting. Est. Established.

(a.) *Alteration in the Low light at Spurn Point.*—The light will be coloured *red*, visible from seaward between the bearings N.W. by N., (passing two cables N.E. of the Sand Hayle buoy,) round Northerly to S.E. by E. $\frac{1}{4}$ E., on which latter bearing it will pass one cable North of Grimsby pier.

(b.) *Alteration in the Low light at Orfordness.*—The light will be coloured *red* on the following bearings visible from seaward, S.W. $\frac{1}{4}$ W., (on which bearing it will extend two cables eastward of the Sizewell bank buoy,) into the land; and from E. by $\frac{1}{4}$ N. into the land.

(c.) *Anchorage light at Dungeness.*—Also, that the *red* light marking the anchorage ground to the westward of Dungeness is now shown from a window below the lantern.

Mariners will, therefore, observe that the *red* light is separate and distinct from the electric light, which will show *white* in that direction as formerly.

The *red* light marking the anchorage ground to the eastward remains the same as before.

(d.) *Harbour lights at Weymouth.*—The Harbour Master of the port of Weymouth has given Notice that the light at the entrance of Weymouth having been totally destroyed in a gale on the 5th day of January last, a buoy now marks its site, and the following lights are substituted for it:—

Two *red* lights are exhibited at the north part of the town bearing from each other N.N.W. and S.S.E.

These lights in a line bearing N.N.W. will lead vessels in the direction of the harbour, clear of the Mixen; care being taken not to open the higher light to the left, or westward, of the lower.

Vessels should proceed with these red lights in one, until two *green* lights, placed on the North Pier, are brought in a line, bearing, W. $\frac{1}{4}$ S., which is the leading mark, in until within fifty or sixty yards of the East light, then keep mid-channel up the harbour.

[*All Bearings are Magnetic. Variation 21° Westerly in 1867.*]

(e.) The light is a *fixed white and red* light.

The white portion of the light is visible from seaward round a great part of the horizon and the red portion from the bearing W. by N., or in a line from the steeple of Bourgneuf, to S. by W. $\frac{1}{4}$ W., or in a line about midway between the shoals of Pierre Moine and Basse des Peres.

(f.) Also that a new light has been established 580 yards S.E. by E. $\frac{1}{4}$ E. from the present light on the point Grouin du Cou at the entrance of Pertuis Breton.

(g.) The light will be chiefly of use to vessels making Aden from the eastward. Vessels westward of Aden would lose sight of the light when shut in with Ras Tye.

(h.) The light is a *fixed white and red* light. The white portion of the light is visible from seaward between the bearings N. by W. $\frac{1}{4}$ W. and E. by N. $\frac{1}{4}$ N., and the red portion between the bearings E. by N. $\frac{1}{4}$ N. and S.W. or about the entrance of the port.

(i.) The light is visible from seaward between the bearings S.S.W., round by South and West, to North.

(l.) A *white* light will be exhibited 6 $\frac{1}{2}$ feet below the *red* one from the lighthouse on the south end of the breakwater at Leghorn.

This additional light is intended to prevent the red light of the Meloria bank being mistaken for that of the breakwater.

[*All these Bearings are Magnetic. Variation in 1867, in the Adriatic 12°, and at Leghorn 15°, Westerly.*]

(m.) With reference to Notice to Mariners No. 1, dated 1st January,

1867, fourth paragraph, relative to two white lights being exhibited on the pile pier erected on the Sandhead, midway between Ryde and Nomans-land shoal.

From the 1st day of June, 1867, a *fixed red* light will be exhibited from the extremity of the pier, and the two small white lights, at present exhibited, will be discontinued.

(n.) The light is intended to serve as a guide to vessels entering the Strait of Messina from the southward.

(o.) The new light will be a *fixed and flashing* white light, showing in every minute a steady white light for forty-five seconds, followed by an eclipse, a flash, and another eclipse, each of about five seconds duration.

We have received the following Nautical Notices from the Depot de la Marine at Paris.

DUNKERQUE.

The entrance channel into Dunkerque has a bar of sand about two cables length from the heads of the jetties, on which bar, at the lowest tides, there is not above a foot or two of water, and it is therefore dangerous to attempt it.

The channel between the pierheads has more water, having at every tide nearly twenty feet of depth. The piers project to W.S.W., and close outside of them the channel suddenly turns to the northward. At high water the tide sets E.N.E. at a rate of three and a half knots, making the entrance very difficult, especially for long vessels.

The cill of the entrance into the basins is about three feet above the level of the lowest tides, and has therefore seventeen feet of water at the worst tide, and a vessel drawing fourteen feet may enter the basins with any tide.

The sea in the roadstead is sufficiently quiet for merchant vessels, and especially for long steamers to discharge or receive cargo. The holding ground is excellent, and even in winter time, large merchant vessels are able to lie there in safety in all weathers.

There is a depth of more than forty-nine feet in the roadstead at low water of the lowest tide, and thirty-one at least in the passage buoyed leading into it. Depths of thirty-eight feet and more extend over a breadth of half a mile to an extent of three miles parallel to the coast. The length of the best sheltered parts of the anchorage by the off-lying banks is about three miles. The western entrance of the roadstead is well buoyed and lighted from Gravelines to Dunkerque, but the others are not so.

ON MAKING CAYENNE.

Notes on making the land about Cayenne—French Guiana.

Vessels from Europe making the land a little to leeward of Chicapour (or thirty-five leagues to windward of Cayenne), according to the instructions are obliged from the want of marks on the coast (the current being strong and irregular) to run much out of their way, and are obliged to be continually sounding, which delays the speed of the ship: therefore commanders of steamers should make the land in preference about Connitabie, about twelve miles off shore, and standing about one hundred and sixty feet above the level of the sea, and visible from twenty-five to thirty miles distant.

But it is necessary in adopting this course to avoid the shoals which break at a distance of five miles from this rock, that render its approach dangerous when a vessel is not quite certain of her position. It is no less

necessary to be careful of the current which is very strong hereabouts in the S.E. trade in May, June, July, but not so strong in the N.E. trade. The direction of these banks is about N.W. A lighthouse on the Connitabile would be a good mark by day or night, and thus indicating all danger, would allow sailing vessels also to run for it.

From 1852, the pilot station has been the *Pera* ialet; the station which was on the *Mere* was moved there, because a bank of soft mud had formed about it on which the anchorage is quiet, while about the *Mere* the ground being hard mud the sea is heavy, full of eddy and very trying to the vessel. Besides a vessel may fearlessly approach the N.E. port of the *Pera* with her lead.

It seems to be best when approaching the *Salent* isles to pass South of them. To the northward of them the depths are not more than those to the South, and it lengthens the route, and by passing to the northward a vessel has often more difficulty in gaining the anchorage she desires, and the vessel may also be compelled to run a little through the mud. By adopting the route to the southward, a vessel drawing twenty-three and a half feet may run to an anchorage without touching ground before she reaches the desired position, although the ebb may have been running for an hour.

Vessels must not entirely depend on seeing the lights on the coast, for it is said they are not well attended.

BANKS OFF ISLE BRIONI ADRIATIC.

A recent survey by French naval officers shews that the channel between Grand Brioni and the rocks near Orsero, Levangha and Gahra, as well as those between Petiti, Brioni, Gironda, and Zompin are not passable until a more special survey has been made of them, in consequence of the number of banks and shoals, on which there is not more than five to seven feet of water, and also because the shores of these islets are very shelving, and shallow under water.

Vessels drawing sixteen feet water should not pass within six cables West of isle Gaza, as the dry part of Astora extends to that distance with the same depth over it. The passage between Cubula bank and the Gaza and San Marco rocks is not practicable on account of the Burchio bank in the channel, with but twelve feet on it.

The channel between the Porer rock and the main land is not clear as shown by the charts; for, first, there is a bank of three fathoms a cable and a quarter N.N.E. of the Porer rock, and next, a bank in it of four fathoms at six cables to the N.E. of the same rock.

Besides these, there is a rocky bank of less than five fathoms with deep water around it at eleven cables W.b.S. from the same rock. All these bearings are true, the variation being 15° W. at Livorno, and at Pola 12° W. in 1867.

CHARTS, ETC., PUBLISHED BY THE HYDROGRAPHIC OFFICE, in June, 1867.

1179. England—West Coast, Bristol Channel and views. Commander Aldridge, R.N. 1867. 4s.

1184. Mediterranean—Tunis Bay and view. Commander Wilkinson, R.N. 1865. 1s.

EDWARD DUNSTERVILLE, *Commander, R.N.*
Hydrographic Office, Admiralty,
21st June, 1867.

THE
NAUTICAL MAGAZINE

AND

Naval Chronicle.

AUGUST, 1867.

COLLISIONS AT SEA.—*Preliminary considerations.*

A PRIMARY object of care, preceding all constructions, is the *foundation* on which they are to be based. For however complete in design or however true to rules of architecture a house may be, yet if its foundation is insecure it is no safe place of habitation. Applying this patent truth to the subject of *collisions of vessels*, it will appear that there is a most necessary and important consideration which ought to precede any attempt at establishing rules of the Road for ships under way, with a view to prevent collision.

2. When the whole subject is considered carefully, it will be discovered that there are *disturbing elements* of a kind that will lessen, and in some cases, annihilate the value of all theoretical accuracy, and while a diagram with a group of ships, like that lately issued by the Board of Trade, may be constructed with the utmost trigonometrical precision, and calculated with the greatest mathematical accuracy, it does not at all follow that no danger would result from adopting the problems based upon it. On the contrary, with the exceptions, for after consideration, *no rule* of the Road can be made *absolute* without incurring the risk of collision nor without in some cases, incurring the *certainty* of such a disaster.

3. The first of the disturbing elements is the WIND, with its varying effects on the several ships involved in the problem, and its very unequal action on these vessels according to their trim-rig, and point of contact, etc., etc., which part of our subject must be treated separately.

4. Next come the TIDES, a powerful element of disturbance,

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especially in some regions, where they *meet*, and also at the times when they are *turning*. Let it be noted that there are places where the tides make the entire revolution of the compass, and we shall see at once how differently, and how unequally a group of vessels would be acted upon, and how dangerous it would be to take for a guide, a *rule* based solely upon their *relative positions*.

5. Omitting at present the consideration of *rule* nineteen in the paper issued by the Board of Trade, and leaving the subject of *tidal* disturbance upon anti-collision problems for special treatment, omitting also the question of *unequal speed* of the different vessels, and the action of the sea, as well as the ever *shifting* error of the compass in iron ships as the direction of the vessel's head is altered, omitting all these but not dismissing them, I proceed to consider another element of disturbance, and one which appears to have escaped the attention of nautical men generally, and which is intended to be the special subject of this paper.

6. THE SURFACE CURRENTS OF THE SEA, with their very *different* and *unequal* action upon a group of vessels according to their different draughts, and to the different angles their keels make with the direction of the current, this is the subject for present special consideration, and while it may be said that all sea currents are surface currents relatively to the great depths of the ocean, those only are alluded to here which reach down no lower than the limits of ships' depths of immersion. And it is to be observed that the question of the angle a ship's keel makes with the direction of the current, while a most important one, and accounting for many disasters and errors in ship's reckoning, will not be more than glanced at now, as a very useful purpose might be served by treating it separately.

Let us once get familiar with the fact that there are *shallow* currents on the sea, varying from mere flying ripples on the surface down to a depth of four or five fathoms, and varying in speed from half a knot to several knots an hour, and then we shall find a phenomenon to account for some things in nautical annals that are very hard to account for in any other way.

I will illustrate the subject with an example from my own experience. On one occasion when off the Nicobar Islands in an old man-of-war brig (*Britomart*) in fine weather, it was observed that as the wind fell light the vessel swung *broadside* on to the direction of her course, and stranger still that when it fell calm, a current was observed to be setting past the vessel at the rate of about one and a half knots, just as if we had quietly drifted on to a sand bank over which flowed a current, although we had no bottom with a hundred fathoms. Now as the *Britomart* drew only fourteen feet I knew at once that the current must reach to a less depth than the draught of the vessel, otherwise she would have been swept away at its full rate, which was found to be about three knots, and by means of a very simple instrument, made for the occasion, I found the current reached down to *nine* feet only below the surface, leaving five feet of the vessel's bottom in *still* water, to check the full action of the current. The vessel lay

with her head north, across the stream of the current, which was setting due east; and nearly west of us was a Maldivie craft, drawing about eight feet, and so drifted by the current without any check as it reached down to a foot below her keel. Therefore as there was every chance of her drifting foul of us, a boat was sent away to help in towing her clear, and she did drift close upon us, certainly not further clear of us than her own length off. By sunset she was nearly out of sight. The calm continued all day, and the incident suggests to nautical men, including naval authorities, some useful considerations.

One of the first of these considerations is the importance of vessels employed together on an exploring expedition being as nearly as practicable of the *same draught*; on the one hand to lessen the risk of *drifting into collision*, and on the other, to lessen the risk of *parting company*, both of these casualties nearly occurring to the *Britomart* and the *Maldivie*.

What seaman has not remarked at times, in seasons of stark calm, vessels come in sight and disappear; and also remarked the difficulty when running side by side with another ship, of keeping clear without steering off half a point or so, which is commonly accounted for by the attraction of masses, but more likely to be owing to a cross surface current acting unequally upon two ships of different-depths of immersion. I would remark, that I have long had a conviction that the fate of the unfortunate *Peyrouse* and his consort, was owing to their coming into *collision*, and that the catastrophe probably resulted from the action of a surface current, when a heavy swell was on. And as it is probable there was a difference of five or six feet in the draught of the two ships, it is easy to imagine that they *drifted* into collision, nor is it unreasonable to think that the expedition might have ended otherwise, had the two ships been of the *same draught of water*.

Now, supposing that instead of the *Britomart* and the Maldivie vessel, there had been a fleet of twenty men-of-war off the Islands at the time, varying in draught from the heavy liners of twenty-four feet and upwards, down to small gun-boats of light draught for service in shallow waters; the result would have been, that each of these twenty vessels would be acted upon by this nine feet stream of current in *very different degrees*. For while the large ships having so much of their immersion in the *still water* below it, would be little affected, the smaller vessels would have been swept away and *separated* from the fleet. And it would have been a curious sight to see the small vessels drifting past the large ones, and perhaps in one or two cases, where a gun-boat was drifting very close to a liner, a *hawser* might be passed on board to keep the little craft from parting company. In another case boats would be sent to tow a vessel which was likely to drift foul of another, for the supposition is, that the fleet was composed of vessels without steam.

Having briefly indicated the action of surface currents at sea, and the disturbing effects they will have, in certain cases, upon "Rules of the Road," I go on to observe, that if after admitting this, and all other disturbing elements, a Rule can be so framed, as to be made

safely absolute, for a certain class of cases, then such a Rule is of very great value to *seamen*, and such appears to be the second Rule laid down in the brief work lately issued by the Secretary of Lloyd's Salvage Association, and one, therefore, to be commended to the attention of seamen of all nations.

The preliminary considerations here suggested are of a material and practical nature, but it will occur to a thoughtful observer of this and kindred subjects, relating to the safety of ships at sea, whether there is not an occasion for a preliminary consideration of *another* kind, involving the present very unsatisfactory relation so often found to exist between the owners and commanders, and between the commanders and the crews of ships, and to which may be traced a large part of our Maritime disasters. It is here, and in this region, *especially* and *primarily*, we so much need a better "Rule of the Road." For if this can be better ordered many good things will follow: among them an improvement in the general efficiency of our ships, and all on board of them: and if the "Institution for Improving the condition of Merchant Seamen" can in any way help forward a measure so important, and so much to be desired, then such an Institution will earn the gratitude of seamen of all nations, and the thanks of the country.

July 17th.

W. C. P.

[Our volume for 1842, in particular, supplies abundant testimony regarding the currents about the Maldives, and they will be found alluded to in several of our other volumes also. But we are under the impression, that, the ships of La Peyrouse will afford no illustration of the subject, for our volume for 1833, at page 530, shews that by the research of Captain Dillon, his ships were blown ashore from their anchorage on the island of Manicolo, one of the extensive range of the Solomon Islands, at the setting in of the Monsoon. The French navigators have, however, set this matter at rest, but their authority is not at present at hand to which we might refer.

At the same time, these surface currents, even those which will affect a boat drawing but a few inches of water, belonging to a ship that will not be affected by them, are well known to seamen. Our own experience furnishes one in the neighbourhood of the Azores while we were engaged in rock hunting. This was in H.M.S. *Leven* in 1818. We had been lying becalmed for a long morning, and in the afternoon the middies were allowed to take the jolly-boat to bathe. We had pulled about a cable's length from the ship, and were occupied about an hour or two when we were ready to return aboard, but on looking for the ship, we found ourselves about two or three miles from her, not having before noticed that our distance from her had increased so much. Now, the ship drew about twenty feet of water, while the boat drew about six or eight inches, thus affording a complete illustration of the effect of surface current above mentioned of the *Britomart* and her Maldivian friend. While the former was but little affected by it, the latter was entirely under its influence. Lieutenant Lee, of the American Navy, mentions numerous instances of his experience of surface

currents affecting only his boats, and we have also alluded in the *Nautical Magazine* to a boat being swept away from the *Rocas* by the surface current, which islet the crew could not regain, being unable to make any headway against the current setting Westward.—ED.]

THE VOLCANO OF MAUNA LOA, OWHYHEE, SANDWICH ISLANDS.

The Eruption of 1855.

(Continued from page 360.)

On the evening of the 11th of August, 1855, about ten o'clock, a small light, apparently of burning brushwood or grass, was seen near the top of Mauna Loa, which rapidly increased until the whole heaven reflected its brightness, and turned the night into day. So bright was it towards morning, that fine newspaper print could easily be read by the light. It was certain that some unusual eruption had begun. This light continued, varying in brightness, for weeks; sometimes a dense smoky atmosphere obscured it wholly, but when clear, the sight as seen by vessels at sea, is represented to have been grand beyond description. The seat of this eruption, which is in the old traditional crater of Mokuaweoweo, is on the summit of Mauna Loa, some 14,000 feet above the level of the sea, in a region rarely visited by man.

We cannot give a better description of the beauty and novelty of this grand sight, than by quoting Mr. Coan's account of his trip to the crater in October, 1855.

Taking the channel of a stream which enters Hilo Bay as our path, we advanced with much toil through the dense jungle along its banks, and rested at night at the roots of an ancient tree—having made about twelve miles. The next day we made about twelve miles more, for the most part in the rocky bed of the stream, the water being low. Volcanic smoke filled the forest, and charred leaves came floating on the breeze, and falling into the wild channel we were threading. At night, when the shades gathered over these deep solitudes, unbroken save by the bellowing of the mountain bull, the barking of the wild dog, the grunt of the forest boar, the wing and the note of the restless bird, the chirping of the insect, the falling of the time-worn tree, the gurgling of the rill, and the wild roar of the cataract, we made our little bed of ferns under the trunk of a prostrate tree, and here, for the first time, we found that the molten stream had passed us in the jungle on the left and was now many miles below us on its way to Hilo. But we would not retreat, and as the jungle was nearly impenetrable in the direction of the stream, we pursued our upward way in the bed of the river until half-past one p.m., on the third day, when we found ourselves out of the forest, and on the high plateau at the base of the mountain. I cannot stop to describe the beautiful, the romantic, the wild, the wonderful, in the banks, the narrows, the widenings, the rocks, the rapids, the cascades, the basins, the caves and natural

bridges of this solitary stream. Nor can I speak of the velvet mosses, the modest creepers, the rich festoons, the sweet wild flowers, the gigantic ferns, the ancient forests, and all the tropical glories which are mirrored in its limpid waters. We needed an artist and a naturalist to fix the glowing panorama, to paint the flora and catch the fauna of these romantic solitudes.

When we emerged from the upper skirts of the woods, a dense fog obstructed our view of all distant objects, so that we could not see the summit-fires, nor trace the molten stream down the slope of the mountain. We encamped early in a vast cave; but during the night the stars came out, and the volcanic fires played brilliantly from their high source down the mountain sides, over the scorified plains, and far down in the forest over Hilo.

Early in the morning (Friday, the 5th,) we left our cavern, and at half-past seven, were on that black and smoldering stream, for which we had been searching for more than three days. Almost as far as the eye could reach, these regions had been flooded with seas of fusion—now, for the most part, hardened, but smoking and crackling with heat and escaping gases.

We passed several miles up the left verge of the stream, and finding a narrow, well-solidified place, we crossed over to the right verge—our passage occupying an hour and a quarter. We now ascended rapidly along the right bank of the stream, sometimes upon it and again skirting it, according to the facility for travelling or the directness of its course. The stream is very tortuous, making ample detours, and sudden zigzags, so that we saved much by cutting off bends or following the bases of the triangles described in its course.

All this day we came to no open fire. The first overflowing had stiffened and solidified in contact with the atmosphere, forming a broad open pall.

Under this self-made counterpane the continuous stream has formed a vast duct; and in this subterranean pyroduct it now flows like oil, at the depth of from twenty to one hundred feet, unexposed to the stiffening action of the air.

At night we slept on the higher regions of the mountains, beyond the line of vegetation, with the slag for our pillow, the heavens for our canopy, the stars for our watch-fires, and Israel's Shepherd for our guardian.

We were astir early on Saturday morning, climbing over indescribable hills, cones, ridges, and masses of hot and smoking debris, and scoria, scattered wild and wide over those Plutonic regions. We soon came to a line of jagged cones with open orifices of from twenty to one hundred feet in diameter, standing over the molten river and furnishing vents for its steam and gases.

We approached the vent with awe, and, looking down their fiery throats, we heard the internal surgings and saw the mad rushings of the great molten stream fused to a white heat. The angle of descent was from 3° to 25° , and we judged the velocity to be forty miles an hour.

The maddening stream seemed to be hurrying on, as if on swift commission from the Eternal to execute a work of wrath and desolation in the realms below. Upward and onward we went—climbing ridge after ridge, parched with thirst, panting in a rare atmosphere, blinded by smoke, almost scathed by heat and excoriated by sulphurous gases.

All the rest of the way we saw frequent openings into the fiery canal, upon whose arched ceiling we walked for miles, with the fearful stream rushing madly beneath our feet. At one p.m. we found ourselves at the terminal crater and standing on its craggy and smoking crest.

This was the high fountain of eruption—the great chimney whose throat goes down immeasurable depths into those fearful realms where man's eye never penetrated, and where he cannot look and live. For nearly five days we had struggled to gain this point; and now we were here—specks, atoms in creation—obscured by smoke, startled by infernal hissings, amid these wild wonders, these awful displays of power which had scattered such a tempest of fiery hail and raised such a raging sea of molten rocks on these everlasting hills.

The grandeur, the sublimity, the terror of the scene were unutterable. A vast chasm had opened horizontally on the top of the mountain, and along this yawning fissure stood a series of elongated, jagged and burning cones, about one hundred feet high, rent through this larger diameter, and throwing up dense columns of blue and white smoke, which covering the mountain's summit, rolled in fleecy masses down its sides and spread out like the wings of chaos over unmeasured regions. Still no fire could be seen in this fountain-crater. We could feel it everywhere, and we could see and hear its escaping gases; but the throats of the cones were clogged with hot masses of cinders, pumice, and ashes, with cracks, crevices, etc., for the escaping smoke. The fusion had long since found vent in a lateral, subterranean duct, several hundred feet below the rim of the crater, and in this covered way it flows off until it makes its appearance, as described, some two miles down the side of the mountain.

This eruption, which in the quantity of lava thrown out, has probably never been surpassed during the residence of foreigners on these islands, continued for about thirteen months, and stopped when within six or seven miles of Hilo. The stream was more than sixty miles long, and the area covered by the eruption probably exceeded 300 square miles. It finally ceased and became quiet during September or October, 1856.

We have prepared from the Admiralty chart of the Sandwich Islands (called so by Captain Cook* their discoverer, after the Earl of

* CAPTAIN JAMES COOK.—It is stated in Australian papers that the inhabitants of Sydney, Australia, have resolved to erect a monument in their town to commemorate the discovery of their country by Captain Cook. The monument is to be completed in 1870, in which year precisely one century will have elapsed since the discovery of New South Wales by the English navigator. This group was discovered by the same renowned man in 1778, and before the centennial anniversary of it arrives, we trust that some movement will be made towards

Sandwich, then first Lord of the Admiralty), a plan of the Island of Owhyhee (called afterwards by the French navigators Hawaii), which is the largest and principal island of the group. It is not however the place of the capital or the residence of the native king of the islands, who with his government resides at Honolulu, a city of no mean pretensions, with a small harbour on the southern side of Oahu an island about one hundred and twenty miles N. W. of Owhyhee.

This island which is about two hundred and fifty geographic miles in circuit, is considered to owe its origin entirely to volcanic action, being the principal seat of volcanic fires. It is however entirely destitute of harbours, although abounding in exposed bays (one of which Karakakua, or "the path of the gods," in the estimation of the natives, is the place where Captain Cook was killed in 1799), but none of which afford shelter for shipping from all winds.

The three great mountains of the island are Mauna Kea, Mauna Hualali, and Mauna Loa, the latter which is to the southward of the others, being the most active volcano. Owing to its want of harbours and its volcanic nature it is but thinly inhabited. It is however not deficient of beautiful scenery, of the crater of which, already alluded to, we are preparing a sketch for our next number. A gentleman who visited the volcano in 1859, the eruption of which will be also described in our next, makes the following remarks on the island, with which we must conclude our present notice of it. He says,

"Besides volcanoes and snow-storms, the island of Owhyhee is remarkable as is well known for many other natural curiosities, among which its waterfalls are not the least interesting. In northern Owhyhee there are, scattered here and there, many remarkable falls and cataracts, some of which, for beauty and sublimity of surrounding scenery, possess few parallels in the world. The valley of Waipio, which in itself forms one of the most interesting natural wonders of the island, possesses two of these waterfalls. One of them, near the mouth of the valley, visible from the sea, and said to be twenty-five hundred feet high, possesses a world wide reputation. The other one, situated at the head of Waipio valley, at a distance of some eight or ten miles from the sea, is, although not its rival in height, by far the most beautiful and perfect fall. At this point the precipitous sides of the valley, assuming a perpendicular position, approach each other in a regular curve and join, so that the valley suddenly terminates in a large basin, surrounded by smooth perpendicular and overhanging rocks, rising to a height of fifteen hundred feet, and forming a sort of huge chimney, over the top of which pours the main body of the Waipio river. The water of this river rushes over the brow of the rock in one broad, regular stream, and falls in an uninterrupted sheet to the bottom, and thence, flowing forth from the deep round pool that receives it, dashes and roars away down the valley among the rocks. The huge precipices, the thundering water, the dancing rainbows, the blackness of the

erecting a monument to him in this group—either a lighthouse at the entrance of this harbour or an obelisk at Kealakekua (as it is called in the island), where he was murdered,

great cave beyond the pool and behind the fall, and the many varieties of bright coloured ferns above and on either side, form a rare combination of attractions. An artist would seldom meet a more glorious subject for a pencil.

"This beautiful fall is, unfortunately, very difficult of access. The route up the valley is rough and in some places dangerous. The traveller will be up to his waist in water a greater portion of the time, and in one place, for a brief distance, swimming is the only method of progression. Probably few white people have ever visited the spot. The lover of natural beauties, however, if he is stout enough of limb to overcome intervening obstacles, will be richly rewarded for his labours, by a visit to the head of Waipio Valley."—J. H. S.

We will now conclude our present paper with an account of a trip to Owhyhee from Honolulu, in the weekly steamer *Kealakakua*, made in September last.

It was late in the evening when we left Maalaea Bay. The wind was blowing furiously across the low isthmus between East and West Maui. Clouds of flying sand marked the channel which separated the two islands at no remote geological period. The *Kilauea*, under sail and steam, bounded through and over the waters like a sea bird; but before we had passed the channel of Kahoolawe, the breeze died away and the sails flapped uselessly against the masts.

The night was calm, with light *cumuli*, that seemed to hang motionless in the heavens. When daylight broke upon us, the point of Kohala appeared to the east beneath a bank of low clouds. Mauna Kea was shrouded, and the sun struggling up, radiated grandly through the mists that overhung Waimea.

We approached the coast, and the slopes of the mountains from North Kona down were of the purest and softest green, variegated by the different shades and tints of the foliage. A white cloud hung over the mountain summits in a line of great evenness and regularity, at an elevation of about 2,500 feet above the level of the sea. It was a snowy gossamer veil over a mountain brow of the brightest emerald. Bordering the sea shore, the cocoa nut groves with their feathery and fan-like foliage, indicated the simple homes of the natives of the soil. As the *Kilauea* steamed along, we passed the localities where once dwelt the ancient chiefs, the birth-place and first home of Kamehameha I. and many scenes of historic interest. The once royal city of Kailua slept silently beneath its groves, with its glory and prosperity departed. The wind sighing through the cocoa boughs, sang the requiem of its past greatness.

Rapidly moving down the coast, and approaching the memorable bay of Kealakeakua, the scene changed, and the orange and coffee orchards and sugar plantations of South Kona, appeared beneath the mantle of cloud far up on the mountain side and enlivened the picture. There can be no more beautiful landscape than that presented to the sea from South Kona. As we passed we looked with emotion on the lands that were formerly possessed by the great moral heroine, Kapiolani, the gifted and good.

We rounded the black lava point, which forms one of the great natural breakwaters to this fine bay and secure harbour, and passed up the deep and wide entrance that leads to the anchorage near the wharf. We approached this point with many historical associations arising from the past, and crowding on our mind relative to the great discoverer of these islands, and his melancholy fate. The scene of that fate was before us, and notwithstanding its romantic and picturesque beauty, our thoughts only recurred to him—the spot where Captain Cook fell, and the point where his mortal remains were mutilated and consumed.

The *Kilauea* was anchored, and bidding adieu to its ever-vigilant and skilful commander, Captain McGregor, and its courteous and gentlemanly purser, Peter Mellish, we proceeded in a whaleboat to Napoopoo, where we were hospitably entertained by our excellent and enterprising friend, I. R. Mitchell, Esq. Rested, and afterwards regaled by a cup of the fragrant Kona coffee, and refreshed by the delicious golden oranges of Honaunau, we proceeded forth to enjoy a *paseo*. It was evening. The sun lingered over his ocean couch, as his golden tresses gleamed in the wave,

“Not as in northern climes obscurely bright,
But one unclouded blaze of living light.”

We wandered to the ancient *heiau*. Ascending its broad platform, we seated ourselves on the basaltic rocks of a ruined altar, turned our eyes to the west and contemplated the scene. The broad and elevated platform of the *heiau* was composed of a mass of igneous rocks, poured forth in ages past from the fiery mouth of the volcanic Pele. It was a monument of superstition facing the setting sun, and reared by the slaves of a dark and barbarous age. Before us was the spot where the shrieking victims of dark and idolatrous ignorance had been offered in sacrifice to hideous gods, the creatures of a darkened imagination.

Here had stood those horrible and barbarous gods, to whom their blind worshippers bowed with fearful adoration. Here had smoked the blood of their human victims, as the wild shouts and fanatic chants of their deluded adorers filled the air. There, to the right, a faint line on the green hill side still marks the “Pathway of the gods,” or *Ke-ala-ke-akua*, which gave name to the place. Down this pathway the simple, ignorant and deluded people, believed their gods descended to sanctify their *heiau*. There once danced their tyrannical priests, Hewahewa and his associates, begrimed with blood and hideous in their moral deformity.

I turned from contemplations so sad and humiliating, and looked to the right beyond the *pali*, where the cocoa grove, yet green and vigorous, waved in the light of the setting sun over the spot where Captain Cook—the Lono of the simple natives—fell, pierced by their lances. Their shadows slept on the quiet wave, as if like him they were but shadows now. Above, the angular spur of the hill shot out, where he was mangled and burnt.

To the left the grove of Napoopoo, waved over the cottages of the village. There fled the natives, when the *avenger* of the murdered navigator inflicted punishment upon their flying myriads. Two ancient cocoa trees, still standing have the marks of the balls of his guns, which passed through and through. They are yet open. A grape shot pierced another through the centre—the mark still there. They all show the position and range of his guns, and the flying column of the consternated natives. The guns were taken ashore and placed in battery on the *heiau*, where we now sit, and must have been six pounders from the size of the ball holes through the cocoa trees. Though all the actors in that thrilling scene have perished, the cocoa grove still survives in greenness and beauty. What a lesson on the brevity of human existence!

We looked to the sunset. The clouds were tinged with rainbow beauty. The sun was slowly sinking toward the wave. Far off on the rose-hued ocean, a low, golden cloud, like a pillow of light, was prepared to receive him. Softly, gloriously, he descended upon it. It seemed to sink with him beneath the wave, line by line, till one crimson billow, casting a long column of light, only appeared on the horizon's verge, and then subsided for ever.

We looked around upon the *heiau*. How much the structure resembled the platforms of the temples, the pyramids, the places of sacrificial worship, in ancient Mexico! We thought of Cholula, of Teotihuacan, of Mitla, and many other places, the scenes of ancient Aztec offerings and sacrificial rights. How much the ancient Hawaiian *heiaus*, their worship, their sacrifices, and their horrid gods resembled theirs! Then we thought of the many peculiarities and superstitions, which were common to both races—the ancient Aztec and the Hawaiians, and we asked, can this be a mere coincidence? We answered, no! There is more than a mere coincidence in all this. These people, these superstitions, must have had a common origin.

The ancient war-god of the Mexicans—Mexitli or Huichilopotchli—and the war-gods of the Hawaiians—the companion of Kamehameha the Great, in his wars—had the same attributes.

The Quetzalcoatl of the Toltecs and Aztecs, and the sons of the Hawaiians, had the same superstitions connected with them. They were both law-giving and enlightened gods—both went away with the promise to return, and the simple minded Hawaiians, on the arrival of Captain Cook, believed that Lono had returned, in the same faith that the Aztecs on the arrival of Cortez, believed that Quetzalcoatl had returned.

The goddess of the volcano of Iztaccihuatl, and the god of Popocatepetl, had their counterpart in the goddess Pele, and in her attributes.

Most of their minor gods were similar in character and attributes. Their human sacrifices were the same.

Their mode of feather work was identic, and cloaks of Kamehameha I., and of Montezuma were *alike*. No other barbarous or semi-barbarous nations possessed the same art.

The matting, maro, and most of the arts of the ancient Aztecs and Hawaiians, were similar.

The obsidian axes and adzes of the Aztecs and Hawaiians, are the same in structure.

The canoes of the maritime Aztecs and those of the Hawaiians were similar in construction.

Their cranial development is the same. Notwithstanding our little acquaintance with the Hawaiian language, we find many words either identic in sound and sense, or derived from the same roots, as the ancient Aztec.

Their habits of life and mode of sleeping are the same.

Their feudal system if not identic, has few points of dissimilarity.

From all these facts, are we not led to infer that the first inhabitants of the Hawaiian Islands, were of the ancient Toltec or Aztec stock, and that they emigrated from the coast of North America? Subsequently, no doubt, there was an accession of population from Polynesia, Malay, and other regions to the West. Do not natural causes operate in favour of this hypothesis?

The maritime colonies of the ancient Mexicans, were to the East and North-east of these Islands. The trade winds and the ocean currents set from that portion of the coast in this direction, near three-fourths of the year. The canoes of the ancient Mexicans driven by these winds and currents would inevitably land on these Islands. Drift wood from Oregon, California and Northern Mexico, frequently lodges against the Hawaiian Islands.

According to their traditions, the Aztecs emigrated originally from the North west—probably some of their earlier settlements extended to California and Oregon. Then taking either point of emigration the probabilities are the same. The Hawaiian Islands may have been peopled from the North-west coast before the emigration of the Aztecs, and before they had arrived at that semi-civilization which existed among them at the time of the conquest.

Then the flora of North-western Mexico and the Hawaiian Islands is nearly the same.

The seeds of trees and plants have drifted with the ocean currents on to these shores, and an inhabitant of Mexico, now landing on these islands, would find much to remind him of his own country.

Reflecting on these facts as the shadows of night descended, we rose and walked away with the deliberate conviction that the primitive stock of Hawaii nei was from the western coast of America.

(To be continued.)

QUEEN ADELAIDE NAVAL FUND.

IN a recent number we directed the attention of our readers to this useful little Fund, and at the same time promised a further allusion to it, in the hope that the officers of those services whose children are the special objects of its solicitude might be induced to appear more

numerously in the list of its supporters; as well as those of our readers who, not belonging to the Naval Service, are nevertheless interested in its welfare.

Hitherto the Queen Adelaide Naval Fund has been noiselessly, but actively at work, and to the full extent of its means, minus about a five pound note a year for stationery, etc. (for it has no paid staff, nor office expenses)—the objects of its foundation have been kept carefully and steadily in view.

Its past experience of seventeen years has fully justified the necessity for such a Fund, and we understand that this is felt so strongly by those members of the Committee who have investigated the cases of the several applicants for relief, that they are most anxious that the fact of its existence should be more widely known. Of this we are sure that the extent of the distress which exists amongst very many of the families of deceased Naval and Marine officers can only be really known by those who devote themselves to their investigation with a view to relief.

Within the last few years, various societies have been formed which assist those who, however willing they may be to assist themselves, nevertheless do find it a difficult, if not an impossible matter to do all that is required to maintain themselves in the position in which they are placed, or even to keep up an appearance corresponding to their rank in society. It will be sufficient for proof of this to refer to the aid given by means of the Schools at New Cross and Isleworth, the Naval Benevolent Fund, and this little Fund, the cause of which we are advocating. All in their different spheres are doing what they can, room enough there is, and more, for each and all. We wish them all God speed!

To revert, however, to the more immediate object before us, we wish to point out to our readers that the aim of this Queen Adelaide Naval Fund is to assist in the education of the young, the maintenance of the aged, and the casual assistance of those daughters of deceased Naval and Marine officers who are in temporary difficulty.

Considering the wide extent of the area thus mapped out, the idea seems almost Utopian; yet, nevertheless, a high aim is essential to success. From its at present very limited resources, each class of the persons above mentioned have been assisted, though in sad disproportion to the necessities revealed. The educational expenses of a few orphan girls are well provided for, and in the school at Isleworth they have all the advantages which so well regulated an establishment affords. At the General Meeting, held under Lord Hardwicke's presidency in April last, it was determined that grants not exceeding £12 a year each should be available for the benefit of three or four pupils in the Royal Naval Female School at Isleworth, who may have been admitted on the £12 or reduced list, tenable so long as they remain in the school, and on that list, provided the half-yearly report of their general conduct is satisfactory.

We willingly endorse the wisdom of this decision, for the reason that those only are placed on the reduced list of the school who are in

actual need of such a boon—and a happy thing it is that when once elected by the votes—we might almost say of the Navy, considering the number of officers whose names are on the subscription list,—this little Fund can step in to help the most needy orphans at the time they most require it preparatory to their after career.

But although the education of the young is undoubtedly the most important, yet the other benevolent intentions of its large hearted originator are kept strictly in view. Elderly ladies unable from failing health and strength to support themselves; others hitherto dependent on friends and relations for perhaps a bare support, now cut off from these; worn out gentlewomen; young ladies needing help to emigrate, to start themselves in life as governesses, companions, and (shall we add?) needlewomen. These and such as these are continually needing help, and while the Committee of the Queen Adelaide Naval Fund have been enabled beneficially to apportion the limited amount placed at their disposal, they have to deplore its utter insufficiency to meet the many extraordinarily distressing cases laid before them. We are able to give our readers examples of the cases which come to the notice of the Committee, and from these they will best gather the benefits which flow through this little Fund. Two daughters of a Naval officer, left on the wide world with an income not exceeding £16 a year, and this only from the Compassionate Fund; had the opportunity of emigrating with a clergyman's family. They succeeded in obtaining a portion of the necessary funds, and with the aid of this Fund were enabled to accompany their friends, and are now maintaining themselves comfortably and respectably in the colony where they have settled.

In another case, one who was earning a maintenance as a governess was afflicted with deafness, which incapacitated her for that employment. Assistance was given her to obtain lessons in photographic printing, which has enabled her to contribute to her own maintenance.

Another who kept a Boarding house, was threatened with a seizure of her furniture owing to her inability to pay her rent. This misfortune was averted, the house was retained and she became more prosperous.

Again, one who maintained a younger sister and herself by the profits of a small shop, received in 1862, notice from the landlord to quit, as he hoped to make more money of the house during the time of the Exhibition; by means of this Fund was aided in establishing herself as a needlewoman.

Instances such as these might be multiplied, but we think these are sufficient to shew the kind of distress which exists. But irrespective of these, our own experience unhappily assures us of the need of such a charity as the Queen Adelaide Naval Fund.

To us it would be a source of much satisfaction if anything we can urge on its behalf would induce our readers to lend their aid in extending its benefits.

The last Report of the Committee, dated May, 1867, is now before us,—it pleads very earnestly—and to the Naval and Marine Services specially for support. But for space we would reproduce its appeal,—

we trust, however, we have said enough to convince our readers of the need which exists, as well as to enlist their sympathy and co-operation in its behalf,—so that, as was well suggested at the Meeting before referred to, “instead of their annual income being some £250, it might at the end of another year be increased to twice or three times that amount”—and, in the words of the Report, be “more in accordance with the needs which it is the object of the Queen Adelaide Naval Fund to assist and alleviate.”*

* For any information our readers may require, we refer them to the Honorary Secretary, Frederick J. Bowden, Esq., Admiralty, Somerset House.

THE NAVIGATION OF THE ROYAL NAVY.

ASSUMEDLY the navigation of the British fleet, next to having it, is one of the most important features of its management. It is in fact its proper disposal under all conditions in all parts of the whole world, and it above all things effects what the Commander in Chief or the captain principally desires. But the duties of the officer who had this important charge hitherto have so much increased of late years that the extensive knowledge, meteorological and hydrographical, essential towards good navigation could not be collected by one head, for it was occupied (when not navigating the ship) in many other duties concerning her, instead of being engaged in the numerous branches of those subjects intimately connected with navigation. For instance, how could this officer investigate the subjects of oceanic currents, periodical winds, such as Monsoons and Trades, their limits and periods of change, all of which affected the navigation of the ship when making passages; the knowledge of surveying under sail or at anchor; of not only making but laying down angles, the process in fact of making a chart of a coast, or a plan of a harbour or anchorage, drawing it to scale. How much information of this nature has been lost, the opportunities afforded by our ships of war visiting foreign parts, simply because the master either had some other duty to perform, or was not qualified for the task. It was time this was all remedied, as we have no doubt it will be by the navigating branch of officers now established, whose main duties should be all matters belonging to those subjects, making other matters secondary to them. They will be in fact the scientific officers of the fleet;—every subject, every particular connected with Nautical Astronomy and the various important branches of Hydrography, which should be, will now be familiar to them. To project an occultation of a star by the moon, or an eclipse of a heavenly body, the handling a theodolite or the levelling instrument, the different ways of obtaining a base line, all these subjects should be as familiar to them as the construction of the Mercator's chart or the working of a day's work. We are glad to see the great work of attending to all these duties taken up in earnest,

being satisfied that when they are made the principal occupation of one class of officers, who it would appear are to be reared in the service as the authorities in all these matters, they will be looked to—the stores of such information will be increased, as they should be, and hereafter, an officer in command of a ship when he goes to a foreign coast will soon find himself in possession of a mass of information of the utmost importance to him—will gladly fill up what may be wanting, and will improve what may be necessary where time has been busy in working changes, or will confirm with his own observation the accuracy of those who have gone before him. The subjoined regulations having been carefully considered, are issued by the Admiralty on this subject, and as they are already in force we commend them to the special attention of those who are connected with the Naval service, satisfied that they will not only raise the professional character of those to whom they are directed, but that the subjects to which they specially allude will very soon wear a far more imposing appearance of importance than they have hitherto done in the halls of science.

The following circular relating to navigating Her Majesty's ships has been addressed to Naval Officers by the Lords Commissioners of the Admiralty, and will be followed by a further memorandum regarding uniform :—

“ RANK, PAY, &c., OF NAVIGATING OFFICERS.

“ My Lords Commissioners of the Admiralty have been pleased, under the authority of Her Majesty's Order in Council of 26th June, 1867, to establish the following regulations :—

“ 1.—The titles of the officers to be :—Navigating cadet (in lieu of naval cadet second class) ; navigating midshipman (in lieu of master's assistant) ; navigating sub-lieutenant (in lieu of second master) ; navigating lieutenant (in lieu of master) ; staff-commander ; staff-captain.

“ 2. Gentlemen to be entered as navigating cadets between the ages of 13 and 15, under the regulations now in force ; the regulations for the entry of officers at later ages from the merchant service, either as navigating cadets, midshipmen, or sub-lieutenants, to be cancelled.

“ 3. The examinations to be the same as at the present, except that the regulations regarding forfeiture of time for rejection at the Royal Naval College are to be assimilated to those now in force for sub-lieutenants. Officers not passing at the Trinity House within two months after passing at the Royal Naval College to be discharged to the shore, and deprived of three months' seniority ; and those not passing within three months to be dealt with as their lordships may think fit, either as to further deprivation of time or removal from the service, as the circumstances in each case may deserve.

“ 4. Navigating lieutenants, instead of passing for line-of-battle ships after three years' service in that rank, to be required to pass at

the Trinity House for ships of the first class drawing twenty-six feet of water and upwards.

"5. Navigating sub-lieutenants to rank with sub-lieutenants according to date of commission, and above chief gunners, chief boatswains, and chief carpenters. Navigating lieutenants to rank with lieutenants, and staff-commanders with commanders, both according to date of commission. Staff-captains to rank with captains under three years' standing.

"6. The regulation that navigating sub-lieutenants must serve two years in that rank, before being qualified for promotion to the rank of navigating lieutenant, to be abolished.

"7. Navigating lieutenants to be qualified for promotion to the rank of staff-commander after ten years' service as navigating lieutenant, or on attaining fifteen years' seniority with not less than seven years' service as navigating lieutenant. In both cases, five years' service must be sea service, as defined by Her Majesty's Order in Council of the 9th of July, 1864, and the officer must have passed for first-class ships. It is however, to be distinctly understood that promotion to the rank of staff-commander is at the discretion of their lordships, and is only to be given to officers of good character and qualifications.

"8. Navigating lieutenants to be eligible for promotion to the rank of staff-commander for distinguished or highly meritorious service, provided they have completed two years' sea service as navigating lieutenants. Should an officer to be so promoted not have passed for first-class ships, he is only to be promoted to the rank of acting staff-commander, but to be confirmed with his original seniority, provided he pass within a reasonable time after his arrival in England. In such cases, the regulation that an officer must serve three years before he can pass is to be dispensed with.

"9. Officers of the navigating class may be transferred for distinguished service in presence of the enemy to the active lists of those executive officers with whom they may rank at the time of performing such service, carrying with them their seniority, and the benefit of their larger rates of full and half pay (if any) until subsequently promoted to a higher rank. Navigating officers may also, at the discretion of their lordships, be promoted to a higher rank in the executive branch, should the circumstances of the case appear to deserve it.

"10. The rank of staff-captain to be confined to master's attendant, assistant master's attendant, and Queen's harbour masters, and to masters of the fleet when so employed.

"11. The pay of the navigating cadets and navigating midshipmen to be the same as at present.

"12. Navigating sub-lieutenants to receive five shillings per diem, to be increased to seven shillings and sixpence per diem after two years' service; half pay as at present.

"13. The full pay of navigating lieutenants and staff-commanders to be as follows, viz. :—

						PER DAY.
Under 5 years' service	.....	£	0	10	0	
Above 5 years' & under 10 years' service..		0	12	6		
" 10 " " 15 " "		0	14	0		
" 15 " " 20 " "		0	16	6		} Provided they have passed for 1st class ships.
" 20 " " 25 " "		0	19	6		
" 26 "		1	1	6		

" 14. Staff-commanders on promotion to receive fourteen shillings per diem, or such higher pay as they may be entitled to by service.

" 15. Half pay to remain the same as at present, except that staff-commanders on promotion are to receive eight shillings per diem, or such higher pay as they may be entitled to by service.

" 16. Navigating lieutenants and staff-commanders, when in command of any of Her Majesty's ships or vessels, to receive the same rate of command money as lieutenants and commanders.

" 17. Store and other allowances, widows' pensions, compassionate allowances, &c., to be the same as at present.

" 18. All navigating officers to be placed on the reserved list on attaining the age of sixty; they may also be removed to that list under the conditions laid down in the first, second, and third paragraphs in Her Majesty's Order in Council of 31st March, 1865.

" 19. Staff-commanders to be allowed to retire when unfit for further service, or on attaining the age of fifty-five, on the following scale, viz :—Under fifteen years' service, no increase to half pay to which they may be entitled by service: after fifteen years, and less than twenty years' service, twelve shillings per day; after twenty years, and less than twenty-five years' service, fifteen shillings per day; after twenty-five years, seventeen shillings and sixpence per day. Officers having served twenty years in the ranks of navigating lieutenant and staff-commander to retire with the rank of captain; officers having served fifteen years in those ranks to retire with the rank of commander. No officer is, however, to be entitled to the increased rank or to the increased pay on retirement, unless he shall have in the ranks of navigating lieutenant and staff-commander at least seven years' sea service as defined, by Her Majesty's Order in Council of July 9th, 1864.

" 20. All time served as acting navigating lieutenant and four years of time served as navigating sub-lieutenant to reckon towards increase of full and half pay and reserved half pay.

" 21. Time served as master attendant, assistant master attendant, and Queen's harbour master, to reckon as service towards increase of full and half pay, and reserved half pay. On retirement from these positions officers will be granted the rank of retired captain, and will be allowed sixpence a day for every complete year's service in such capacity, in addition to their half pay or reserved half pay.

" 22. Navigating lieutenants who may hereafter be placed on the reserved list may, at the direction of their lordships, be promoted to the rank of staff-commander on attaining fifteen years' seniority, if of good character and qualifications.

" 23. Time served in revenue vessels to count as sea time. Time

served in the coast guard on shore, or in the transport service on shore, to count as sea time in the proportion of two years in the coast guard or transport service as one of sea service. Time served as mail agent or transport agent afloat or abroad to count as sea time for the first three years, and after that in the proportion of three years agent's time as two of sea service. These regulations only to apply to increase of full and half pay and reserved half pay.

"24. Navigation officers, whatever their rank and seniority may be, are in all matters of command, and in all details relating to the duties of the fleet, and to the discipline and interior economy of Her Majesty's ships, to be held subject to the authority of any officer, not below the rank of lieutenant, who may be in charge of the executive duties of the ship, or in charge of any other special service or duty, of whatever seniority such officer may be.

"25. Navigating officers in command of Her Majesty's yachts and store-ships are not to be interfered with by officers commanding any of Her Majesty's ships or vessels of war, except under special or exceptional circumstances; nor are they, when on the home station, to be required to wait on any officer in command of one of Her Majesty's ships or vessels of war under the rank of commander; but in foreign stations they are to report themselves to the senior officer present, whatever his rank and seniority may be.

"26. The officers borne on the books of home ships for pilotage and other duties, and for the command of small vessels and tugs, who now are styled acting masters and acting second masters, although they have never passed the examinations required for those ranks, are to be styled chief officers in Her Majesty's fleet instead of acting masters, and senior mates in Her Majesty's fleet instead of acting second masters, as laid down by Her Majesty's Order in Council of 11th December, 1865, in the case of acting masters and acting second masters in the coastguard service.

"27. These regulations to come into force from the 1st July, 1867; and to apply to all navigating officers on the active lists.

"By command of their lordships,

"HENRY G. LENNOX.

"Admiralty, July 2."

It has been advanced that the altering and realtering of the regulations concerning this branch of the Naval service, argues against a naval administration changing with every change of government. But even with the present form we have come to the right thing at last. The old term of *Master* was derived from former days when Her Majesty's officers were more soldiers than sailors, and their ships were sailed for them by sailing masters from the Merchant fleet. But times have been long changing and our officers are as good navigators and sailors as they are soldiers. What is really found is that the subject of navigation extends to the whole world, and that as a knowledge of meteorology is also essential to make a good navigator, and that ocean currents influenced by serial currents and changes

affect coasts and bays, throwing up banks and shelves where none existed, and that with the wide range requiring attention, everywhere the subject has grown to that extraordinary magnitude that requires continual study to master, and therefore should at least be begun early, as there must be some other routine duties which belong to a ship of war that must also be performed. The navigating officer we therefore look on as a most wholesome change in the Naval service. In fact, the important claims of navigation in all its branches, are now likely to be well met in far better spirit than under the old system of confiding it to one who had very many other duties to perform.

By change of administration one set of officers improve on the plans of others, and it seems that to the present administration may be attributed the credit of having given us an established class of officers, well organized and paid for their services, with quite enough of their own peculiar duties to perform if they do them well—which duties combine subjects of the most useful as well as instructing kinds, and from which they may derive not only pleasure and honour, but also highly interesting philosophical and ornamental amusement in more branches of science than one, tending to improve the mind of the individual, and to make him a more valuable member of society. On the whole, we congratulate the naval profession on the change, and we also congratulate the authors of it, on having exercised their experience in framing their new laws and carrying them into effect.

CIVIL LAW AND MARTIAL POWER.

(Concluded from page 378.)

OUR readers will have already had sufficient about the Jamaica outrages and Governor Eyre, to which the attention of this journal would never have been directed but for the barbarous conduct of the Royal Navy, to use the mildest terms, in the killing and slaying of the miserable inhabitants of that island. The excellent letters we have therefore reprinted have shown up the enormities of those offences, in which predetermined malice against those unfortunate individuals, was, we are satisfied, evident.

And a writer in the *Daily News* appositely says, "If I see my enemy in a position in which I may put him to death under colour of law—if I rejoice to see him in that position—if, instead of extending to him a mercy which it is unquestionably in my power to extend, I eagerly strain the law in several ways to get him killed, then whether I have kept within the letter of the law or not, I have the guilt of murder on my soul. It is evidently the opinion of the highest legal authority in the land that Governor Eyre did not keep within the letter of the law."

Thus much for our legal forms and ceremonies, and ignorance of

law, common enough, and perhaps excusable among naval officers, but most inexcusable among those holding the onerous position of government.

But our naval officers will have found out the false position they were placed in in Jamaica, the ridiculous and mistaken, yet sad light in which they authorised barbarities and crimes, that were committed, at which humanity shudders—the mock courts-martial, hangings, and shootings which followed them. And this ignorance, where have the effects of it fallen? On those who ought to have known better? Not so! Those unhappy islanders undeserving of their fate, termed by their Governor “savages,” and some few others free from that unmerited appellation, have been consigned to their graves, as the forfeit of this ignorance on the part of the abettors, who have been shielded from the course of the law of their land by a body of men called grand jury. It may be all gone by, but its effects on English minds are too deeply engraved ever to be indelibly eradicated.

Let us hear no more of martial law where civil law always reigns, and let our naval officers of all things remember that civilians can never be brought before martial courts. On this subject the following copy of a circular despatch to colonial governors, dated 30th January, 1867, on the subject of martial law, has been presented to both Houses of Parliament by command of her Majesty:

“Downing-street, Jan. 30, 1867.

“Sir,—Although I do not know that there exists in the colony under your government any law authorising the proclamation of martial law by the governor, I think it advisable to communicate to you, for your information, and if necessary for your guidance, an extract of a despatch addressed by me to the Governor of Antigua, in which I have stated the views of her Majesty's government on this subject.—I have, etc.,

(Signed)

“CARNARVON.”

“Extract of a Despatch from the Earl of Carnarvon to the Officer administering the Government of Antigua, dated Downing-street, 30th January, 1867. No. 40.

“An enactment which purports to invest the executive government with a permanent power of suspending the ordinary law of the colony, of removing the known safe-guards of life and property, and of legalising in advance such measures as they may deem conducive to the establishment of order by the military officer charged with the suppression of disturbances, *is, I need hardly say, entirely at variance with the spirit of English law.* If its existence can in any case be justified, it can only be because there exists such a state of established insecurity as renders it necessary for the safety and confidence of the well-disposed, that, in times of national emergency, the government should possess this extraordinary facility for the suppression of armed rebellion. But whatever apprehensions or disturbances may exist in any of her Majesty's colonies, it is certain that no such chronic insecurity prevails in any of them, and in no colony, therefore, should the power given by the present law to the governor of Antigua be

suffered to continue. I think it, therefore, necessary to repeat the instructions given by my predecessor to Colonel Hill, and to request that you will cause to be submitted to the Legislature an act repealing so much of the law as authorises the proclamation of martial law. I have only to add, that in giving you these instructions, her Majesty's government must not be supposed to convey an absolute prohibition of all recourse to martial law under the stress of great emergencies, and in anticipation of an act of indemnity. The justification, however, of such a step must rest on the pressure of the moment, and the governor cannot by any instructions be relieved from the obligation of deciding for himself, under that pressure, whether the responsibility of proclaiming martial law is or is not greater than that of refraining from doing so."

The difference between a humane governor who knows his duty and one who terms his people "savages," with no regard to their improvement or their happiness, is well exemplified by comparing the late outbreak with the present state of Jamaica, as shown by the following extract from the "*Kingston Journal*," of June 3rd:—

"THE TAXES IN JAMAICA.—The humbler classes throughout the country have shown an extraordinary willingness to pay their taxes, and the 'upper,' 'property and governing,' class who expected to see the people break out into open riot when the taxes were demanded of them and who hinted to the people that they should resist the tax-gatherer, have been very much disappointed. It was represented that the labouring people of St. Ann had been pulling down their houses to avoid the taxes. This we have been assured is not true, whilst we know that in other places the taxes are paid before they are demanded. In the Woburn Lawn district of St. David, we have assurance that the deputy of the collector of dues was kept up till midnight receiving money from persons who had come from great distances to pay taxes. This speaks well for the people, especially in a parish that has been considered partly the seat of rebellion!

A FOREIGNER'S ACCOUNT OF US—*The Admiralty.*

(Continued from page 368.)

BEFORE we part from the Hydrographic office of the Admiralty, let us say a passing word on the importance of this establishment. To a committee of naval officers, that has to consider the movements of the fleets of England in all parts of the world, it is the very beacon light of their councils! Without it, how could their opinions be formed on many matters concerning those ships? Even the limits of stations of their Admirals abroad and at home are readily shown on the chart. Is a ship overtaken by a hurricane and damaged? Does a

ship come in contact with another? like the *Amazon* a short time ago (which vessel actually foundered). Does a ship strike upon a rock? or does she accidentally get on shore on some foreign coast? How essential for consideration of the circumstances in all these cases is the chart, and if so, how much more essential that it should be unimpeachable for its truth! The Board of Admiralty without such information, wherewith to consider the despatches continually arriving from abroad, containing accounts of those transactions and others of their fleet in distant seas, without such information as a good chart conveys, would literally be in the dark! portions of those despatches as to the "whereabouts," and the true configuration of the locality in question would not be intelligible! Such facts are sufficiently known to that Board, and for reasons which every day's experience displays, it wisely keeps not only the charts within their reach, but also an able superintendent, who himself has already taken his part in their construction, to report to that Board on those transactions, and thus the Board has not only the chart to assist in forming its opinion, but also the opinion of that officer, their hydrographer, to light them to their conclusions, and to confirm them in the view they may take as to the measures to be adopted.

Now those charts, which extend to all the world, have been carefully collected, but not without great expense to the State; from the early days of the great English circumnavigator, Captain Cook, and they certainly compose the first great emporium of hydrography in the whole world, and yet it is one of the most modest dimensions: an office which ministers not only to the safety of the huge fleet of ships of the State, but also those of the Mercantile vessels in the great and important subject of hydrography in all its branches, is cooped up in a few rooms of the upper floors of this building. Compared with what it was in former years, it is now in a superior condition, but compared with what such an office should be for a great Maritime State like England, it is but the mere nucleus of what it ought to be—for taking all the various subjects which it includes;—the chart of the sea shore, or the ocean itself, its depths, dangers, currents, and channels, its various shores, their lights, beacons, and buoys, their tides, and the influence of these on the weather, thus throwing, as it were, into the arena of subjects, that of meteorology, to say nothing of pilotage, which, although the duty of another office, is virtually the offspring of hydrography. Were all these subjects duly treated, along with that formidable one the compilation of sailing directions to accompany them, and the construction of the chart itself, they might well occupy a building the size of the Admiralty itself, and yet not be overdone! And yet all these matters individually and collectively along with the never flagging attention required to the daily passing events of the fleet, relating to them and the direction and control of surveys at home and abroad, are constantly going forward under the hydrographer's auspices. All these things are done without any trouble or confusion, silently carried on in some half dozen rooms; which, themselves and their connecting passage, contain not only those archives in

which are lodged the drawings of the surveys from which the charts are formed, but a number of copies of the charts themselves, which from these rooms are not only distributed to the fleet, but also dispensed to the public as well as to foreign communities and governments that may desire them, but also those of our Mercantile Marine. Well may the Board of Admiralty treasure up their hydrographical resources, so well known not only at home, but in the remotest corners of the world ; and well may they make much of those busy heads who are daily contributing under their own roof, with their matured and experienced judgment, to that solid safeguard which these charts with the sailing directions accompanying them, supply to him who chooses to use them. That Board has at length made the discovery that pure and unalloyed hydrography is an invaluable commodity !—one that will repay the care bestowed on it ; nay, the expenses of providing it, by conducing to the well being of the country to which it belongs, in the promotion of commerce, in the safety of its fleets, and in the dispatch and celerity of navigation. Turn we now to other matters, for we are satisfied that, of all countries in the world, the garden of hydrography should be well cultivated in that which is so essentially maritime as England.

Before sending expeditions, in war-time, to the shores of countries hostile to Great Britain, she naturally looks to the defence of her own against a foreign fleet. We know the vigilance with which they were watched during the first empire, and the alarm occasioned by the appearance of a suspicious sail on the horizon. Since those days, thanks to a constant state of peace, the coast guard has been established, much less for the purpose of preventing foreign invasion than for preventing the schemes of smugglers. In consequence of the proximity of France considerable fraud of revenue had occurred. The extent to which smuggling was carried on the Cornish coast is now matter of history. An honourable resident of that part of the country has found in the caves of his shore two hundred tubs of brandy of which nobody seemed to know anything. How could they have got there ? A written notice enjoined him under severe threats to breathe not a word about them, and frightened he shut the door determined to know nothing of them. Some days afterwards the tubs all disappeared excepting two or three which were left him in reward for his silence. But mostly merchandise just landed from some vessel has been half buried in the sand, or concealed in the interior of some cavern difficult of access at the foot of the cliffs. The sale of these articles, which had paid no duty, had been settled beforehand ; the only difficulty was to convey them into the interior of the country. But men getting into the farms at night, took the horses from the stables, harnessed them to carts of the farmers, and then took them to places agreed on ! Horses and carriages were carefully returned without noise or disturbance, and a present was even left for their owner in the shape of a handsome shawl or some considerable amount of lace. The fact was that the country population without openly assisting the smugglers encouraged them by a sort of moral complicity, generously

paying them for the service rendered ; and thus avoided any impeachment of character in rewarding what became a veritable profession. The adventures and enterprises of these lawless gentry even found approval among the weaker sex. Sailors and fishermen voluntarily engaged in this illegal commerce, and many a fine vigorous young fellow has shewn his metal worthy of a better cause in resisting authority in his pursuits. The annual sum lost to the country in those days from the clandestine trade in French merchandise was estimated at £800,000.

The public treasurer has no fancy for romance, especially when his interests are at stake, and has very naturally no sympathy whatever for smugglers, and so resolves to maintain his rights most vigorously. In 1822 a system of blockade backed by fifty-two cruisers undertook to clear the Strait of Dover and the British waters, of these terrible enemies of the custom-house. In two years, 1822 and 1823, on the coasts of the united kingdom fifty-two vessels were seized, and three hundred and eighty boats engaged in the contraband trade. On shore the blockade was composed of one thousand five hundred officers and men of the Royal Navy, under the orders of the Admiralty, and an army of coast guard then under the orders of the customs. The contest was active between the officers of the government and the smugglers. On both parts deeds of heroism were worthy of being the subject of an epic poem. Still this system was ruinous to the state, which expended in one way what it never recovered in another. Is it then to be attributed to the enterprise of the preventive force that smuggling has been all but abolished from British shores ? No indeed, what put an end to the business of the smuggler was the gradual reduction of duties. Who was on the wrong side in those days ? the government or the smuggler. Perhaps both, for the fraud arising from high duties has nearly disappeared without returning to the time of a better policy that made a step towards free trade. Swift used to say, that in the arithmetic of the custom house two and two instead of making two made but one. Why did he not at the same time point to the remedy for such things. In these days the remedy is known, and that is not to ask an immoderate price, more than the country will give. By lowering prices a fair balance has been established between the expenditure and receipt in the English custom house.

In 1857 the custom house vessels were placed under the orders of the Admiralty. At present to get into the service it is necessary for the candidate to have served seven years on board of a man-of-war, and to bring certificates of good conduct. At first sight the appearance and uniform of a seaman of the coast guard is not different from that of the Royal Navy. There are the traits of character strongly marked, features with a sort of stocial indifference to danger. He braves the fury of the elements with the same air of defiance with which he regards the enemy. The man-of-war's man however, is only distinguished by a broad shirt collar of blue cotton and white border thrown back over the shoulders, exposing a neck bronzed by the sun and effects of the weather. Those of the preventive service on

duty, on the contrary, wear a woollen shirt and a neat cravat of black silk, while on a large band round their hat the word coast guard appears in gilt letters. A leather belt round the middle carries a cutlass, and in large breast pockets he has a brace of pistols. These weapons now never used remind one of the days of adventure when these same men had to defend themselves from the pirate. Some of them wear certain marks or badges or stripes on their coats, which are given for good conduct. Three of these are all they can obtain. If they have these three of embroidered silk and gold on the arm, the first is for good conduct, the second for very good, and the third for excellent. Each of these stripes of distinction entitles the bearer to an additional penny a day to the pay of the coast guard man.

During the day they have only to walk about with a telescope along a portion of the shore, and observe every vessel and boat within sight; but how much more is exacted from them at night? Obligated to appear at the principal guardhouse every morning, they there learn what they have to do at sunset. A party composed perhaps of seven men, of which one looks out by day and the other six take their turns during the hours of darkness. They then patrol the sea shore, whether of rocks or sand, and meet parties of the adjacent station with whom they communicate and deliver, or receive messages in reference to their duties. In the winter season, when the weather is bad and the sea runs high, the lives of these men are exposed to considerable danger. About five or six years ago on a dark stormy night, an officer of this service, stationed at Hunstanton, on the coast of Norfolk, lost the winding path along the edge of the cliff, and fell from a height of eighty feet down among the fragments of rock at the foot lining the beach. His fall was of course unknown to any one, and after several days' search, his mutilated remains were found. On the same night also another accident occurred on another part of the coast, that also proved fatal.

The coast guards, in fact, by day and night have to perform the duty of the police of the sea. Every vessel or boat in the least suspected is notified from one station to another by means of telegraphic communication, which reaching from one place to another extend round the coast of Great Britain. And as the contraband trade declines, reducing the opportunities of risking life for the fiscal benefit of the country, these are made up for by a commendable zeal in saving life from wrecks. No doubt it was an easier matter to suppress fraud than to do away with the tempest, and it is particularly in contending with the fury of the sea that the coast guardsmen are celebrated as boatmen. On discovering a vessel at sea with signals of distress, they are as ready to go out to her relief as Newfoundland dogs. At each coast guard station there is a life-boat, with which they immediately put off to the distressed vessel. But these life-boats must not be confounded with those of the National Life-Boat Institution. These men have neither life-belts nor any apparatus to support them at the surface in case of accident, and as to *their* life-boat, it is far from being constructed in the scientific way in which those of the Institution are.

The number of persons saved in the course of the year is estimated at about six hundred, and the property about seven or eight thousand pounds sterling. This is no light service which these brave seamen perform in defiance of the elements, of a far more formidable nature than contending with smugglers. In 1859 four coast guardsmen, of Pevensey, on the Sussex coast, were ordered to launch their boat and proceed to rescue a small vessel about a mile off shore, but which the heavy sea that was running seemed likely to overcome. The sea was very bad and the danger evident enough, but the officer had given the orders and they were sufficient, so off they went. In a few minutes the boat was capsize about a hundred yards from the beach, and the four seamen were contending, holding to the boat bottom upwards, but they were unable long to contend with their condition, and sunk with the wreck of the boat. Nor are such catastrophes at all uncommon. In these cases an enquiry is held, and a verdict is generally given of accidental death:—the widows are assigned a small pension, and the orphans if any are frequently adopted by the other boatmen, and thus the matter ends. Other seamen fill up the places of the lost and contend with the sea like them. It is impossible not to admire such heroic devotion, and how a nation so conscious of her glory does not take measures to prevent such a sacrifice by efficient measures. These men receive but a limited reward for their services even in saving merchandise of great value from wrecks. It is true that on the first of March every year the Government gives two medals, one entirely honorary, the other which is accompanied by a pecuniary present for each ship, which forms the centre of each district of the coast guard. Among the things thrown up by the sea and which the coast guard is directed to collect and to transmit to the authorities, they find some sad victims of the waves. On the coast of Norfolk lately a dark object on the surface attracted their attention that proved to be the corpse of a female.

Most of them have Government buildings for their residence, and those who have not are allowed five pounds a year for lodging. The cottages built for them generally have four rooms, two above each other, with a kitchen and washhouse, these mostly detached. They have also a garden in front, where the women dry their washing, etc., and also a paved yard behind, where the men have an opportunity of displaying their taste in the way of ornament and paving, etc., in the mosaic style. It is not the general lot of seamen, who have passed their previous life at sea in a ship of war, to enjoy themselves on shore, nevertheless, Jack as he is always called, distinguishes himself as a family man. Even when at sea he has always his ditty box, in which are carefully deposited his letters and those little secrets of the heart, such as a bit of ribbon, perhaps a lock of hair. Let no one intrude on this little sanctuary of the affections. That mysterious affair, the ditty box, is to him the germ of domestic happiness. When this comes hereafter to be opened in more prosperous days, and looked into by a pair of dark eyes, that same person, its owner, is no longer the wanderer on the ocean drifted about like a piece of seaweed but is tied to his home.

Those coast guard houses in fact in the eyes of the visitor are emblems of happiness in their way. Their interior is the very specimen of neatness and propriety. At the entrance is a neat mat made by the old seamen on board his ship, and the little parlour displays the simplest possible furniture, and, whether of wood or metal, bearing proofs of daily polishing. A carpet, muslin curtains, a neat little table with a few books, chairs, and flower pots suspended from the ceiling form the little stock of furniture in these modest abodes. The order of such a little establishment belongs to the manager. The British sailor is not always that uninstructed person he is taken to be. He knows very well how to blanch the linen, to keep the house in order, and cook as well as his wife. But she also has her part to perform. She is a workwoman and can make ladies' dresses, and contributes with her hands to increase the slender allowance derived from her husband's pay. Let her be seen on winter nights, when the wind is howling round their little abode, waiting in the corner of their room the return of her husband. She is preparing his meal, and welcomes him on coming in from his round, when he clasps his children to his breast and proceeds to light his pipe.

These houses, in groups of five or six, are generally sheltered by a surrounding wall, perhaps also enclosing a bit of ground which is under cultivation. Sometimes the wall is between the houses and the sea, there being nothing but the hills on the opposite side. At a short distance from their residence is the look-out tower, from whence the sea may be overlooked to the horizon; but this tower, sometimes of wood and sometimes of brick, has nothing picturesque about it. When new it has the appearance of a pigeon-house, when old it is contemptible. Sometimes their look-out places consist of only a platform, more or less, with a parapet on the summit of a rocky height perhaps with a kind of balustrade about it, in the midst of which stands a flagstaff accompanied by two pieces of artillery. Sometimes the coast guard people go out in their boats to overhaul suspicious looking vessels, a part of their duty often attended with danger, for frequently they are met by men who are half smugglers and half pirates, who have made up their minds to part with their merchandise to the coast guard at as dear a rate as possible. The women themselves are not always strangers to these audacious attempts at deceiving the officers of the coastguard, and more than one Cornish heroine has become illustrious from her encounter with the men of the coast guard. One of them lost her heart to the son of a fisherman, a ferocious looking man who had promised to marry her after about two years of work. But even their marriage happened to be delayed by a circumstance which seemed of little importance. At a particular time there was reason to believe that a vessel (a brigantine) would endeavour to run some contraband goods, a vessel which had often eluded the vigilance of the coast guard. At night it was impossible to surprise her at sea, while in the morning she would be seen securely anchored and off some approachable points of the coast. The coast guardman in love receives orders to go with his comrades and board

the suspected vessel. But this was no easy task, for if for some time a black object was seen on the summit of the waves, the brigantine would escape at the moment she was supposed to be in their power. One night however, the coast guardmen distinctly saw a sail on the horizon, and although it was dark enough to rejoice the heart of a smuggler they did not fail to keep sight of her. Consequently, a regular attack took place, and at the moment of boarding the report of a pistol was heard, which seemed to be fired by a boy, and was supposed to announce that the brigantine was determined on resistance. But she was captured, and what was the surprise of the assailants when they found among the group of crestfallen smugglers that they could not discover the boy who had fired the pistol, and whom they had distinctly seen by the flash. It was in vain they sought for him both inside and outside of the vessel, but some days afterwards in one of the bays of the Cornish coast, the corpse of a female in sailor's clothes was found, and in the face the coast guardman recognised the features of the girl to whom he was to be married. Had she fallen overboard by accident, or had she voluntarily thrown herself into the sea to avoid the shame of the discovery that awaited her if she had been found by her lover in such bad company? This is a mystery which has never been cleared up. In these days such stories are unknown even on the wildest shores of Great Britain. The coast guardmen whom I have questioned, have invariably replied, "We have no more adventures." Everyone is satisfied that if this is not an English romance, at all events there was the materials for one lost. If report speaks true there is but little smuggling going on in the present day, except through the Custom's officers. But the coast guard themselves are they not the greatest smugglers after all in certain cases. Preserve us from lending a too ready ear to such accusations, belied by the honest forms and simple manners of those old seamen who are accustomed to look death in the face, and serve their country honestly in spite of the storm.

Accustomed to the strictest discipline, the English coast guard form the materials of both fleet and army. Their servitude which by turns is afloat and on shore is entirely amphibious. Their fleet consists of thirty-eight watch vessels, a dozen ships stationed in certain districts, and forty-eight cruisers. To keep the men at work two men are sent alternately from each station to their sea work and to take to their seamen's duties again. Thus they traverse gradually the whole coast from the coast of Norfolk to that of Scotland. These changes last for six weeks generally for each of the men once a year. During that time their wives remain at home in their cottages, counting the days anxiously and trembling at every gale that comes, for those shores are dangerous and more than one mariner has left his bones on them. The coast guard ships and the small vessels which attend on them assemble from time to time in one of the ports, where they are inspected by the Lords of the Admiralty. A captain and lieutenant command the district, provided with lodging by the government. Each station has a chief boatman who of course occupies the best quarters reserved for the coast guard. They are generally distinguished

by the two letters C. G. on their hat, the buttons of their jackets bearing the anchor, and an anchor on crimson ground embroidered on the sleeve of the left arm.

After twenty years of servitude from the time they entered the Navy, a coast guardman who would be worn and weakened by age may demand his retirement. He obtains then on the report of an examination by medical certificate, an allowance of twenty pounds a year, and is at liberty to pursue whatever other occupation he pleases. But he very rarely leaves the sea coast to which he has become attached, and he generally prefers to end his days in sight of the sea, and within even the hearing of those waves which remind him of the scenes of peril he has passed in the course of his life.

The Admiralty superintends all the naval affairs of the state, but at the same time there is an alliance between it and the Trinity House, which exercises some authority in its turn over the Merchant service. This however is another subject in the midst of the various docks of London, from which an idea may be had of the commerce of the English generally. But it is quite true, that the Merchant fleet is the cradle of the British navy, and it is from the volunteers of that service that the Royal Navy draws its resources incessantly.

When King James the First, angry with the people of London, threatened to remove the Court to another part of England, the Lord Mayor is stated to have replied, "We much regret that your Majesty would deprive us of your royal presence, but in the event of your Majesty leaving us would you kindly leave us the Thames? This river, of far greater importance than royal protection, has, in fact, contributed to the commercial greatness of London, and to the stranger what a spectacle it presents. Where else could be found a parallel of floating riches? What is called the port of London extends from London Bridge to the North Foreland—such at any rate are the limits assigned to it by Charles the Second, but, in fact, the port traced along the river does not extend below Gravesend. And in reference to this subject the port must not be confounded with what the city considers as such, which is from Staines (in Middlesex) to a mark in stone on the bank of the river in Essex. According to the old charters the Corporation of London are charged with the care of the river, and the Lord Mayor has the title of "Conservator of the Thames." For many years the Parliament has deprived the Corporation of the privileges of conservancy and transferred it to a Board, of which the Lord Mayor is the chairman. There is a range of this river thirty-two miles in extent covered with the produce of the known world. The vessels are placed quietly along the two banks, with sails furled and yard arms locked in each other, like the wings of hugh ocean birds, leaving in the middle between them the highway of navigation. Quiet and steady, however, the noble river is subject to the flow and ebb of the tide which brings up the ships from abroad and reconducts them to sea.

Huge vessels come up but slowly through such a concourse of ships as is collected here, of all kinds, steamers, colliers, vessels laden with

grain towing or sailing, perhaps working up and occasionally halting for the tide, like grand signors resting on their way. In the midst of this concourse of vessels there will be small craft of all forms and sizes, and even colours, grey, brown, green, and mixed, skimming along from one side to the other, and some drifting with the tide, heavy and deeply laden, managed by two oars only, and others towed like huge whales drawn along by dolphins. These huge moving masses stir up the sea occasionally and leave in their tracks ripples sufficient to distress the boats that may be about. These belong to the watermen, a numerous race on the Thames, but which are dwindling every day, from the steamers having taken their traffic. But on all parts of the banks there is endless rough and ready as well, at the same time, as spacious storehouses for the reception of the goods from the troubled waters. The moving chimnies of steamers meet the immoveable chimnies of factories and smoke mingles with smoke as it passes, and here indeed navigation lends a helping hand to industry.

As reach after reach opens the river, on the north side are seen the entrance of wet docks, which are signalized by a forest of masts on the horizon. The English never courageously risk a fortune in great and useful enterprises. It would seem at first sight, that the united efforts of generations have been required to construct such works, and hence these basins seem quite modern. The present age indeed has seen the excavations for these docks. Until then, ships that entered the port of London had no other place to discharge their cargoes, except the quays, called the legal quays, and others known as sufferance wharves, which extended along each bank of the river. These narrow platforms were encumbered with valuable materials, and the open water of the river on the other hand, by which the vessels were subject continually to a system of robbery. Boats at night found their way among them, and in the confusion which reigned, the vessels often being pressed against each other, much property was carried away to the amount of some hundred thousands of pounds. In 1793, a plan for these docks was proposed, and for remedying the obstructions of the river. But it was not until six years afterwards, in the month of August, 1802, that the West India Docks were opened, the first work of this kind that was constructed in the port of London.

These docks, established at the enormous cost of £1,380,000, extend across the isthmus which connects the Isle of Dogs with the shore of Middlesex. They are entirely surrounded by a high thick wall which protects the vessels in them from nocturnal depredations. Like all other works of the same kind they are composed of three distinct parts: the basin, the quays, and the storehouses. The advantage of these basins is that they are always filled to the same height of water, which is still, and the ships are not subject to the rise and fall of the tide. Formerly when vessels discharged alongside the jetties of the river they were compelled to haul off as soon as the tide changed at high water, and to haul into the stream. Nothing is worse for a large vessel with cargo in her than to ground at low water. At present these huge craft have no kind of trouble from the tide. As their keels

never touch the ground they are subject to no injury from grounding, and notwithstanding the paltry wooden store houses, the great success of the docks is intelligible enough. The quays which have succeeded the old wharves are of substantial granite, on which the cargo of a ship may be placed in safety, and to each vessel is assigned an extent of jetty as marked. The warehouses are huge brick buildings, provided with windows furnished with wooden shutters, provided with cranes as necessary for the landing of the goods on the several floors of the building, and a curious sight they present, dancing at the end of a powerful chain, which deposits them in safety on the rail for which they are intended.

One part of the Thames docks is devoted to imports, and another to exports, an arrangement which very much facilitates commercial operations. The merchandise of Great Britain or the produce of foreign countries, either of these change hands and pass from one storehouse to another, by merely the authority of a simple morsel of paper, generally known as a dock warrant, and is considered one of the safest certificates that can be presented. The company also guarantees to the purchaser the quality of the goods he requires. For a long time the storehouses of these docks have been encumbered with West India produce, such as rum, sugar, coffee, and mahogany. A clause of an act of parliament obliges all vessels bringing home foreign produce to use the docks intended for them. But this monopoly, which had existed for twenty years, is known no longer. These docks, of which we have been speaking, are open to the commerce of the whole world. The Seal by which the rich company of merchants trading to the West Indies attracted attention is not, however, entirely effaced. It is necessary still to go there if one desires to breathe among the produce the odour of that group of islands which has been named the paradise of the new world.

THE NAVAL REVIEW AT SPITHEAD.

THE events of July will be long remembered by those who had the privilege of enjoying them, and will be consigned to the page of history, as another triumph of England's hospitalities and her naval *prestige*. An account of them all, including banquets, balls, concerts, operas, and volunteer as well as naval reviews, would occupy more space than we could devote to them. If in treating on one of them we should rather exceed the bounds of rational space usual to such narratives, we hope our readers will find an excuse for us in the unprecedented character of the occasion. Who has ever heard of the Sultan of Turkey and his Viceroy visiting England before this year of grace? besides that debt had to be paid by the friendly reception which we owed to the Belgian Volunteers. No wonder then that

London, especially, has been all gaiety and bustle, and no wonder that our principal arsenal was fairly besieged by crowds of visitors who had to put up with what they could get, in order that they might witness the naval review. But, alas, how often our best hopes are disappointed! this uncertain climate of our's marred the best preparations with storm and rain, which too often frustrate the best of intentions, and that review which its rehearsals promised should be everything that could be desired, became a mere inspection accompanied by abundance of salutes.

In our last number we alluded to the programme of the proceedings which were to take place. But, we shall preserve here a general outline of what did take place, and then refer more especially to our part of it, the naval proceedings. We will briefly enumerate the *fêtes* to which we have alluded in honour of the Sultan, the Viceroy of Egypt, and the Belgian Volunteers.

They commenced on Sunday, the 14th, when the Sultan, accompanied by the Prince of Wales and a numerous suite, paid a visit to Richmond; and the Viceroy, accompanied by the Prince and Princess Teck, went to Maidenhead to see the magnificent and picturesque seat of the Dowager-Duchess of Sutherland at Cliefden. On Monday evening, the Sultan went to the Opera in state, which was one of unusual brilliancy and interest. On Tuesday, the 16th, the Sultan and the Viceroy went to Woolwich to witness an inspection of the troops and Royal Artillery, but were prevented by the weather from seeing more than the Dockyard and Arsenal. The next day was occupied with a Naval Review at Spithead, on which occasion the Sultan was invested by the Queen, on board the Royal yacht, with the Order of the Garter. On Thursday, the 18th, the Viceroy took leave of the Sultan and left for Dover, *en route* for the Continent. In the evening there was a grand concert and ball at the Guildhall, the Sultan, the Prince of Wales, and members of the Royal family were present, to the number of about 3,000. There was also a grand ball at the Agricultural Hall, Islington, which was one of the most brilliant affairs seen in London for many years, and here the Belgian Volunteers were present, the company numbering about 10,000, including the Prince of Wales, the Duke of Cambridge, and a brilliant assemblage of peers and peeresses. On the 19th, the Sultan and the Volunteers were entertained by Miss Burdett Coutts, at her choice residence, Holly Lodge, Highgate, and in the evening the Sultan was present at a magnificent ball given by Her Majesty's government, at the New India Office. On Saturday there was a grand review of the Volunteers at Wimbledon.

Such is a *resumé* of the principal events which have rendered the month of July the most remarkable of the year. Let us now select the Naval review as our own special province, on which we have to treat. It has been justly said that our horse races, and our naval reviews, eclipse those of all other countries. For instance, "No other country can show such a spectacle as Epsom Downs on a Derby Day, or as Spithead that day. 'Famous for ships, famous for horses,' is

as true to-day of England as of the ancient Attica. On the turf and on the water we exercise a sovereignty of character and habit with that large familiar assurance, far above vanity or self-love, which has the force of instinct and the calmness of law. Soldiering on a large scale is certainly not an English taste, though we garrison the Indies, and from dawn to dawn beat our roll-call round the world. Our volunteering is a manly, national sport; our regular battalions are the sentinels of a world-wide empire. We have taken no mean part in the great decisive battles of many centuries; but ours is not the military spirit, we have no pride in great armies, and if we had, our insular position would have forbidden us to indulge it, and our military administration would have long since cured us of it by its enormous cost.

"The notion of our military authorities combining in a tremendous effort, and at no inconsiderable expense, to collect seven thousand troops, infantry, cavalry, and artillery, in Hyde-park to astonish the Sultan and the Viceroy, who had just assisted at a review of the Army of Paris (of some 60,000 men), was eminently British, no doubt, and, we must add, eminently absurd. Let us make up our minds, once for all, that great military spectacles are not our *forte*, and be thankful and proud that we cannot compete with the continental monarchies in such displays. Surely it was a happier inspiration that proposed a Naval Review for the gratification and instruction of our Oriental guests. At Woolwich they have seen scientific and mechanical inventions applied to the preparation and concentration of armaments. At Wimbledon they saw in the ranks of a citizen army the living bulwark of a free nation. But on the 17th, on the waters of the Isle of Wight, they discovered the very vital source and secret of the greatness of this little island, the mainspring of her power, the reason of her authority among the nations, the sum and substance of her national idiosyncrasy. To explain England to a foreigner, her history, her traditions, her place and duty in the world, show him the navy that guards her shores, that protects her commerce on every sea, that ministers to science by its explorers, vindicates the independence of Europe by its heroes, and spreads over the seas so many moving citadels of liberty and justice. There is nothing in the spectacle of a British fleet more noble than the fact that it presents one of the most formidable fighting forces in the world, at the service of a liberal and enlightened Government and a free and peaceful people."

And here is the array of ships of war, that were to have manœuvred in the review; but which were compelled to hold on by their anchors, although they were by no means silent spectators of the scene.

The fleet under the command of Admiral Sir Thomas Pasley, Bart., Commander-in-Chief at Portsmouth, consisted of eight wooden line-of-battle ships, eight wooden frigates, two wooden sloops, fifteen iron or iron-clad frigates and sloops, sixteen gun boats, five royal yachts, and eighteen troop-ships, yachts, tenders, etc.; and, excepting the gun vessels and gun boats, were anchored in two lines or divisions, the starboard one being next the Isle of Wight.

STARBOARD DIVISION. <i>Iron.</i>				PORT DIVISION. <i>Wood.</i>					
	Ships' Names.	Guns	Horse Power.	Ton- nage.		Ships' Names.	Guns	Horse Power.	Ton- nage.
1	Minatour	34	1350	6621		Victoria	102	1000	4127
2	Achilles	26	1250	6121		Donegal	81	800	3245
3	Warrior	32	1250	6109		Revenge	73	800	3322
4	Black Prince ...	41	1250	6109		Duncan	81	800	3727
5	Bellerophon	14	1000	4270		Irresistible	60	400	2642
6	Lord Clyde.....	24	1000	4067		Lion	60	400	2611
7	Vallant	24	800	4063		St. George	72	500	2864
8	Pallas	6	600	2372		Royal George... ..	72	400	2616
9	Research.....	4	200	1253		Mersey	36	1000	3733
10	Royal Sovereign ..	5	800	3765		Liffey	31	600	2654
11	Prince Albert... ..	4	500	2037		Liverpool	39	600	2656
12	Wivern	4	350	1899		Phœbe.....	30	500	2896
13	Viper	2	160	737		Sutlej	35	500	3066
14	Vixen	4	160	754		Dauntless	31	500	1575
15	Waterwitch	2	167	777		Nymphæ	4	300	1084
16	Gladiator	6	430	1210		Daphne	4	300	1081
17	... ..	...	...	...		Terrible	19	800	1850
GUN VESSELS AND GUN BOATS.									
18	Stork	2	60	236		Lee	5	80	431
19	Fancy	2	60	235		Magnet	2	60	238
20	Pigeon	2	60	268		Pheasant	2	60	235
21	Redwing	2	60	236		Hyæna	2	60	236
22	Clinker	2	60	235		Surly	2	60	236
23	Bullfrog	2	60	236		Sandfly	2	60	236
24	Fervent	2	60	233		Highlander.....	1	60	233
25	Orwell	2	60	268		Speedy	2	60	273

Captains and Commanders' Names for reference, by the numbers of the Ships.

STARBOARD DIVISION.		PORT DIVISION.	
1	Capt. Jas. G. Goodenough. Flag of Rear-Admiral F. Warden, C.B.	Capt. Frederick Beauchamp P. Seymour, C.B. Flag of Adml. Sir T. S. Pasley, Bart.	
2	Capt. Edward W. Vansittart	Capt. Edward W. Turnour	
3	Capt. John Corbett	Capt. George Le G. Bowyear	
4	Capt. John Fellowes	Capt. George Hancock. Broad Pennant of Comm. J. W. Tarleton, C.B.	
5	Capt. R. J. J. G. Macdonald	Capt. John Borlase, C.B.	
6	Capt. Roderick Dew, C.B.	Capt. John M. Hayes, C.B.	
7	Comm. Charles H. Stirling	Capt. Matthew S. Nolloth	
8	Capt. Matthew Connolly	Capt. Thomas Miller	
9	Comm. Arthur Morrell	Capt. Henry S. Hillyar, C.B.	
10	Capt. Cowper P. Coles, C.B.	Capt. Gerard J. Napier	
11	Comm. Charles D. Inglis	Capt. John Seccombe	
12	Capt. H. T. Burgoyne, V.C.	Capt. John Bythessea, V.C.	
13	Comm. Henry E. Crozier	Capt. Trevenen P. Coode	
14	Comm. Charles D. Lucas, V.C.	Capt. Edward P. B. Von Donop	
15	Comm. Philip R. Sharpe	Com. Thomas Barnardiston	
16	Captain E. D'O. D'A. Aplin	Com. George L. Sullivan	
17		Capt. J. Commerell, C.B., V.C.	

OFFICERS COMMANDING GUN VESSELS AND GUN BOATS.

18	Lieut. Charles E. Reade, Capt. A. W. A. Hood	Comm. Charles W. Andrew
19	Lieut. Henry S. Mandeville	Lieut. George B. Golden
20	Lieut. Francis C. de Lousada	Second Mate G. H. Robertson
21	Lieut. William M. Moger	Lieut. Blair S. Hamilton
22	Navig.-Lieut. G. S. Alldricks	Lieut. George W. J. Aldham
23	Lieut. Alfred C. May	Lieut. Charles S. Shuckburgh
24	Lieut. John J. Gregory	Lieut. Arthur C. H. Paget
25	Lieut. Alfred F. Marescaux	Navig.-Sub.-Lieut. N. Child

The following Royal Yachts, Yachts, Troop Ships, and Tenders, attended the Fleet.

ROYAL YACHTS.

Ships' Names.	Guns	Horse Power.	Ton-nage.	Commander.
Victoria and Albert ...	2	600	2345	Capt. H.S.H. The Prince of Leiningen, G.C.B.
Alberta		160	391	Staff-Comm. David N. Welch
Elfin		40	98	Navig.-Lieut. A. Ballistoun
Osborne	2	430	1034	Comm. John D'Arch
Fairy		128	312	Staff-Comm. W. H. Drysdale

TROOP SHIPS, YACHTS, TENDERS, ETC.

Serapis	3	700	4173	Capt. John C. Soady
Malabar	3	700	4173	Capt. Frederic D. Rich
Enchantress	1	250	835	Staff-Comm. John E. Petley
Helicon	2	250	837	Comm. Edward Field
Black Eagle		260	540	Staff-Comm. T. J. Whillier
Vivid		160	350	Staff-Comm. T. W. Sullivan
Fire Queen		120	313	Staff-Comm. F. W. Paul
Sprightly		100	234	Chief Officer George Allen
Princess Alice		120	270	Navig.-Lieut. W. H. Parker
Argus		50	318	Chief Officer P. Mahoney
Seamew				Comm. Robert Sterne
Medusa		312	889	Staff-Comm. Thomas Potter
Lightning	2	100	296	Comm. David Aird
Porcupine	1	132	382	Staff-Comm. E. K. Calver
Lizard	1	150	340	Lieut. Stanhope G. Price
Dee	1	220	704	Navig.-Lieut. G. Raymond
Pigmy	1	100	227	Staff-Comm. W. H. Petoh
Bann		80	267	Senior Mate Philip Johns

The two divisions of ships commencing at a short distance west of the fort building on "No Man's Land" Shoal, extended towards the Solent to a little beyond the Sturbridge Shoal, the two lines about three cables' lengths apart, the ships anchoring in line ahead in the order

enumerated. It was intended that one of the Royal yachts should be anchored about four miles outside the Nab Shoal, and that the two lines of ships should get under way simultaneously, and preserving their order run down to it, returning as before. But it was wisely determined that the ships should remain at anchor; and the weather which followed in the course of the day fully justified the decision.

At Portsmouth the first move was made by the Sultan embarking on board the *Osborne*, and followed by the *Helicon* with the Viceroy on board, and the *Enchantress* with the Lords of the Admiralty, steamed out of the harbour, and by the *Porcupine*, Com. E. K. Calver, having a large staff of scientific officers on board, with the hydrographer to the Admiralty, and company specially invited by Captain G. H. Richards, R.N., and under the usual salutes from the shore, steamed out of the harbour to the fleet. Meanwhile Her Majesty had embarked from Cowes, and gone out with the same destination in the Royal yacht *Victoria and Albert* and remained off Osborne for the arrival of the Sultan. On passing between the lines of the fleet the Sultan was saluted, and arriving off Osborne His Royal Highness went on board the *Victoria and Albert*, accompanied by the Imperial Princes, their Royal Highness the Prince of Wales and the Duke of Cambridge, and followed by his Highness the Viceroy of Egypt and his suite from the *Helicon*, and was received on deck by Her Majesty the Queen.

The Sultan was received by Her Majesty on her own quarter-deck, and we see the event announced to the fleet by the banner of the Ottoman bearing the imperial cypher flying by the side of the Royal Standard at the same masthead of the yacht. Thus seen from one side the yacht was bearing the flag of England, and seen from the other she carried that of Turkey!—a sight never before witnessed, and as has been observed, one suggesting “ample subject for reflection.” It was there that the Sultan was honoured by Her Majesty with the Order of the Garter—but soon the yachts are off again, and deliberately pursuing their way between the two lines of the fleet from the westward. Then continued the Royal Yacht (led by the Trinity Yacht *Irena*) with the *Osborne* on her starboard quarter, and the *Elfin* on her port quarter, entering within the two lines of the fleet, with her faithful Lords and Commons in the *Syria* and *Ripon*; and as she passed the two end ships *Gladiator* and *Terrible*, then opened a steady salute from the broadsides of each ship as she successively passed them down the lines, in the course of which the brilliant rays of the sun occasionally burst forth with a fine pictorial effect and gave animation and life to the scene, the more charming on account of the sombre contrast which here and there intervened. It was a glorious interval, one which, as the powerful reports succeeded each other or accidentally coinciding, themselves combined (as it were) in unison now and then to contribute their powerful effects to the scene,—it was one we say, to which the heart responded with thrilling sensations of delight, admiration, and gratitude, that if we are to lose our wooden walls we shall have yet those of iron, and a queen who with her august presence will shew her sailors that she too as well as they can make free with

salt water, even in a *coup de vent*—that “cap full of wind” as Robinson Crusoe so naively puts it, that converted the intended naval review at Spithead into a mere inspection on the afternoon of the 17th.

Besides the vessels above named, the *Alberta*, the *Enchantress*, *Fairy*, and *Helicon*, were attending on the Royal Yacht, and the Danish and Italian corvettes took up the salute with as much spirit as any ship present. Indeed the latter (the *Ida* we must call her until we can find out her name) heedless of wind and rain was in her fine weather attire, as she should be on such an occasion! By lines of flags from the jib-boom end to the taffrail and to her yard arms, she shewed us that Italian bunting could fly as well in rain as in sunshine; and her commander merits the compliment, that she was the best dressed ship of the fleet.

As the yachts neared the eastern ships of the fleet, the weather still squally and disagreeable, the pace was slackened, and about three in the afternoon the Royal Yacht dropped her anchor under foot, as well as the other yachts near the fort building on “No Man’s Land,” where they lay for an interval of rest from the glories of the day. And this being concluded they again got under way and passed through the fleet amidst the usual salutes towards Osborne.

The work of the yachts as well as that of the ships forming the line, might now be said to have been concluded; but not so of the squadron of gunboats, whose business it was to bombard with all their fury, the two forts of block-house and Southsea. And this they did, so reckless of consequences that two of them got into shoaler water than was intended! But such things will happen. However, they had a harmless enemy to deal with, and were lifted off again by the flowing tide as quietly as they had been left aground; contributing much, by their well kept up fire, to add to the interest of the scene.

This, however, was now on the wane, for the illuminations of the fleet by “long lights” varied by manicoloured exhibitions of this kind, and enlivened with bouquets of rockets, were much interfered by the rain. Thus the foul weather followed up all the proceedings. Indeed so much wind, as had been blowing all day, was a pretty sure index of the certainty of time being required to quell it. And the great review of Spithead, from which so much enjoyment had been expected, and which had assembled people far and near at Portsmouth, really passed away half shorn of its attractions. And yet it did not prevent our English hearts from rejoicing at those proceedings which *were realized*, and will often hereafter recur to the memory of many a visitor to Portsmouth on that day as a glorious proof of the strength of England’s Navy.

The Sultan, as well as his Viceroy, have both left us. Both came to profit by their visits, and let us hope they will do so. They will have taken with them at all events, a lively remembrance of us, our institutions and our ways, and we may be allowed to cherish the hope that what they have seen to approve they will turn to good account in their own lands.

No doubt had a different period of the moon been chosen, we might

have had more propitious weather for our aquatic proceedings. For he who still doubts the power of the full or the new moon has had now before the *contretemps* of this visit. There can be no doubt that of all others a naval review is much more dependent on the changes of the moon for the caprices of the weather or its contributing success. How truly has it been observed: "All the monarchies of the east and west cannot 'charm the narrow seas to give gentle pass.' 'What care these roarers for the name of King?'" many a qualmish courtier may have asked on this occasion, when the yachts began to rise and fall upon the crests of the sea, plunging and foaming under the western gale.

It is to be regretted that our Oriental visitors were not with us when the moon was young, and the *crescent* shone serenely in a clear sky. Our western full moons are not happy in their auguries: they rise in rain and set in tempest in this month of thunder. "On the night of the 16th it needed no seaman's eye to read the sign of change and storm. At sunset the rain had lifted, and a hard keen sky, traversed and torn from hour to hour by flying squalls and scuds of driving air, with fitful lulls and baffling pauses of the wind, foretold uncertainty, trouble, and changes in those regions, 'over which,' as Mr. Disraeli remarked, 'we have no control.' The raw and ragged beauty of the early morning must have warned the most knowing of the select thousands who left the West-end deserted, that, though Britannia rules the waves, wind and sea are no respecters of persons, and that British landmen, especially at the height of the London season, are very fit and proper persons to offer sacrifice to the sea gods at whose altars they presume to worship. 'We'll not offend one stomach with our play' is a promise that even the British Admiralty cannot obtain from the facile Nereids of the Solent when they offer the two Houses of Parliament as hostages. A July gale is not so bad, perhaps, as a March or September one; but a gale is a gale, and the eager venturers who paid so dear for the whistle on the 17th had the satisfaction of facing, if not a whole gale, something very like half a gale. We would rather not attempt to picture to our readers or to ourselves the secret sufferings of many an illustrious and many an obscure pleasure-seeker on that occasion, in pursuit of patriotic emotions under difficulties. A fleet of fifty war-ships riding out a storm is in itself a splendid sight: a fleet of steamers and yachts freighted with ardent and curious idlers, who, disdaining the 'suave mari magno' philosophy, go out to share the 'great labour' of their naval fellow countrymen, is a spectacle that almost reaches the moral sublime. But here at all events it was one of fun and frolic."

In reference to these proceedings the following minutes have been communicated to the fleet.

"*Victoria*, at Spithead,

"18th July, 1867.

"GENERAL MEMORANDUM.

"I have much pleasure in promulgating for the information of the flag officers, captains, commanding officers, and crews who served

under my orders at the naval review yesterday, the accompanying minute of the Lords Commissioners of the Admiralty, communicating her Majesty's approval of the manner in which their respective duties were performed.

"I request that Rear-Admiral Wellesley, Rear Admiral Warden, Commodore Tarleton, and the captains and other officers assembled at Spithead and in Portsmouth Harbour, will accept my thanks for their exertions and able assistance in carrying out the arrangements connected with the naval review, although the complete fulfilment of the programme of the review was interfered with by the state of the weather, which prevented the intended evolutions of the fleet under way.

"I have further to express my approval of the general good conduct of all classes belonging to the fleet, during their stay at this port; and to make known to the officers and five hundred men of the Royal Naval Reserve who volunteered their services for the review the satisfaction with which I have received from Commodore Tarleton reports of the zeal and efficiency with which they discharged their duties on this the first occasion of their being employed on service with the fleet.

"The accompanying Admiralty minute, together with this memorandum, are to be read to the officers and ships' companies of Her Majestys' ships at Spithead and Portsmouth.

"T. S. PASLEY, Admiral.

"To the respective flag-officers, captains, and officers commanding Her Majesty's ships and vessels at Spithead at Portsmouth."

"The Board of Admiralty has received the command of Her Majesty to notify to Admiral Sir T. Pasley, Bart., and the flag officers, captains, officers and men, who served under his orders at the Naval Review this day, Her Majesty's approval of the manner in which their respective duties were performed.

"The Board is further commanded to express Her Majesty's gratification at the spectacle presented to Her Majesty in passing through the lines of ships which were drawn up for Her Majesty's inspection.

"My Lords direct that these commands may be made known to the fleet.

"By command of their Lordships,

"(Signed), W. G. ROMAINE.

"To Admiral Sir T. Pasley, Bart.,
Commander-in-Chief, Portsmouth.

"17th July, 1867."

ROYAL NATIONAL LIFE-BOAT INSTITUTION.

A MEETING of this Institution was held at its House, John-street, Adelphi; Thomas Chapman, Esq., F.R.S., V.P., in the chair. There were also present Sir Edward Perrott, Bart., W. H. Harton, Esq., Admiral Sir Wm. Hall, K.C.B., Captain De St. Croix, Admiral M'Hardy, Colonel Palmer, and Richard Lewis, Esq., the secretary of the Institution.

The minutes of the previous meeting having been read, a reward of £4 10s. was voted to the crew of the Society's Rhoscolyn lifeboat, for going off on the 5th ult., in a gale of wind and very heavy sea, and assisting to take to a place of safety the schooner *Hope*, of Beaumaris, and her crew of three men, which vessel was in a perilous position in Cymmuran Bay, Anglesey. Various other rewards were also granted to the crews of the Institution's lifeboats at Lytham, Lancashire, and Cahore, Ireland, for putting off during rough weather with the view of rendering assistance to the crews of distressed vessels. A reward of £4 was likewise voted to the crew of a shore-boat, for rescuing in a heavy sea the crew of four men from the sloop *Woolpacket*, of Dartmouth, which was wrecked on Barnstaple Bar. Other rewards were also granted for saving life from different wrecks on our coasts.

It was reported that during the past month the Institution had sent new lifeboats to Redcar Yorkshire, Seaton Carew Durham, and West Wittering Sussex. The several railway and steam packet companies had kindly granted the boats a free conveyance to their destinations. The Redcar lifeboat was taken to Burton-on-Trent on the way to its station, and a grand demonstration took place there on the occasion of the presentation and launch of the boat. The West Wittering lifeboat was also publicly inaugurated on the 20th ult., at which the Bishop of Chichester assisted.

The late Miss Mary Shortridge, of Cleadon, Durham, had left the Society a legacy of £500 free of duty. It was also stated that a contribution of £500 had been received from the City of Worcester Lifeboat Fund, through Captain Saumarez Frazer, R.N., in aid of the Bembridge, Isle of Wight, lifeboat station. £400 had also been handed to the Institution on account of the lifeboat fund raising among licensed victuallers, on behalf of the new lifeboat establishment about to be formed at Hunstanton, on the coast of Norfolk. £300 were also contributed for a new lifeboat for Dundalk, Ireland, from the Stockport Sunday School Lifeboat Fund. New lifeboat houses were ordered to be erected at St. Ives (Cornwall), Hunstanton, and Stromness, N.B. The Institution decided to place a new lifeboat at Kessingland, on the coast of Suffolk. Payments amounting to £1,900 were ordered to be made on various lifeboat establishments.

Mr. Lewis, the secretary of the Institution, reported that he had on the occasion of the great ceremony on Monday the 1st ult., in the Palais d'Industrie, Paris, received from the hands of the Emperor of the French the Grand Prize of Honour, awarded to the National

Institution in acknowledgment of its great services to sailors of all nations when shipwrecked on our shores. The medal is a magnificent work of art, and weighs about 12oz. H.R.H. the Prince of Wales, who sat next the Sultan, on the right of the Emperor, appeared much pleased at this great tribute to the English Lifeboat Institution, he having recently presided over its annual meeting at the Mansion House. Reports were read from the inspector and assistant-inspector of lifeboats to the Society on their recent visits to different stations. Most favourable accounts had been received of several of the safety fishing boats of the Institution. The proceedings then terminated.

NOVELTIES—PAST, PRESENT, AND FUTURE.

A NOTICE to Mariners in *Mitchell's Maritime Register* says: "CHEFOO, April 12.—The Chinese government have erected a lighthouse on one of the islands at the entrance of the harbour." We have heard nothing of a light in it, and should be thankful to our readers for any further intelligence concerning it.

THAT new island reported by a Boston paper as having been so recently found "exactly in the track of vessels from China and Japan to San Francisco," turns out to be an old one not in the place assigned to it, and the story of the wreck of the *Canton*, being wrecked fifty years ago, seems to have originated from the following extract of a Sandwich Island paper. The account of the *Libelle's* wreck on Wake Island appeared in our number of December last, in a letter from Madame Bishop, dated at Guam.

CRUISE OF THE CAROLINE MILLS.—The American schooner, *Caroline Mills*, Captain Nickols, returned to report on the 22nd inst., having left here on a wrecking voyage to the westward about three months ago. She was provided with all the appurtenances for recovering wrecked property, and her Captain and crew were thoroughly experienced in those enterprises, and equipped with the proper instruments for navigation. A complete modern diving apparatus was on board—commonly known as a "submarine armour," with two men to operate it, one to don the "armour," and the other to attend to the signals of his confederate while exploring the bottom of the ocean. The first island visited by the schooner, and the principal object of the expedition, was Wake or Halcyon Island, one of the Palmyra group, lying in latitude 19° 11' N., and longitude 166° 31' E. Here they obtained some flasks of quicksilver from the wreck of the bark *Libelle*, which left here last year, having as passengers, Madame Anne Bishop and others. On the voyage, Captain Nickols visited an island which is on some charts called Gasparico and on others Cornwallis Island, in 14° 43' north, and 169° 03' east longitude, where he found portions of a wreck that had evidently laid there for years. It was that of a teak-built ship, with composition fastenings. By Lloyd's Register we find

that a ship called the *Canton*, left Bengal, and in 1822 was reported as missing, at Lloyd's. From the fact of her having composition metal, which was only invented after 1840, it could not have been the *Canton* suggested by the *Gazette*, and besides, that vessel was not of the size by several hundred tons, as it is apparent was the ship, the remains of which were found by Captain Nickols. Another circumstance which goes to prove that the wreck is a modern one, is that the masts, which are still to be seen, are what are called by seamen "made masts," that is, built in pieces and bound by iron bands. The coat of arms from the stern Captain Nickols has brought here and deposited in the Harbour Master's office. The fair inference is, that the ship in question was the Hudson Bay Company's ship *Canton*, chartered by the East India Company, perhaps, in 1822, or the wrecks now to be seen there may be those of two distinct vessels. On the shield, which is certainly a curiosity and well worthy of inspection, are first, the royal arms of England—three lions, etc., surrounded by the crown. Under this are evidently the arms of the Hudson's Bay Company, a beaver and a bear. On the outer circle of the shield are a succession of elephants and castles. Then comes a cypher which Captain D Smith, an experienced British shipmaster, interprets to signify 1799, the date at which the ship was built. There are few probabilities that the fate of the crew of that ship will ever be ascertained. The only sign that men had ever been on the island, beside the remains of the wreck, were some pieces of woodenware. The unfortunate men who were thus cast on a barren island may have perished there of starvation, or, what is more likely, have gone away in the ship's boats and foundered at sea, or fallen a prey to the savage inhabitants of the neighbouring islands.

The *Caroline Mills* is loading oil, and will sail for San Francisco.

As to the harbour for the San Francisco line of steamers to China, we believe that the prospect of Honolulu being a point of call between Panama and China for a new line of American steamers has induced the authorities there to turn their attention towards preparing a landing pier with an appropriate depth of water, which seems likely to be effected by the following extract from the same paper.—"We understand that the Hawaiian Government will act with becoming liberality towards the new enterprise, and will immediately set to work to extend the wharf on the Esplanade, so that a new pier may be in readiness by January next, or as early thereafter as is possible. It is now proposed to extend the present steamboat wharf south on a line with its present front, say one hundred and fifty feet, making a wharf of two hundred and seventy feet for the steamers to lie at. The China steamers are three hundred and forty feet in length, but as they remain in port only a day or so on each stoppage, this wharf will amply accommodate them. The depth of water alongside varies from twenty to twenty-four feet, but it will be dredged to a uniform depth of twenty-four feet. As this wharf lies at the head of the channel, the steamer will reach it without the necessity of turning around, and when ready to leave, has simply to cast off the bow lines and head out to sea.

The bar at low water has twenty-one feet, and at full tide twenty-three to twenty-four feet. It is stated that the steamers will draw, when fully loaded, only twenty-one feet. Excepting in the event of southerly storms, which seldom occur, there can be no difficulty in the ships entering and leaving in any ordinary half tide. The bar and channel are very smooth in all weathers, except during southerly storms, when the swell is heavy, as is usual at all entrances, when exposed to the wind. It is understood that efforts will be made to deepen the channel as soon as arrangements can be perfected.

HONGKONG.—*Extract of a Letter.*—To us at the Islands, who are so fortunately situated on the great ocean highway between the advancing civilization and Christian enlightenment of the East, and the receding barbarism and paganism of the West, everything relating to those hitherto little known regions of the globe possesses, at the present time, a peculiar interest. The probabilities are, that ere long Honolulu, through the steamer line of the Pacific Mail Steamship Company, will be in monthly communication with the ports of China and Japan, and it may become a common occurrence for those of our residents who can afford it, and wish a change of scene, to embark on one of the great "floating palaces" of the line and make a trip to Hakodadi or Hongkong.

Hongkong (or Victoria), is located on an island, near the mouth of the Canton river, in $22^{\circ} 12' N.$ (nearly the same as Honolulu, which is 21.19) and longitude $114^{\circ} 32' E.$ The Island is a barren, rocky one, with several rough and abrupt looking peaks, one or two of which reach an altitude of eighteen hundred feet above the level of the sea. It is eight miles long by two to five broad, and is estimated to contain about twenty-nine square miles. It was ceded by the Chinese to Great Britain, June 25th, 1843, at the conclusion of the "opium war," though it was in reality possessed by the East India Company some years previously. The climate of Hongkong has been variously represented by different visitors as unhealthy and as salubrious, though the weight of evidence would go to show that those who take proper care of themselves have no trouble. As it is, like Honolulu, situated in the tropics, the months from May to September are extremely hot, for it is not, as here, favoured with the cooling trade winds, and the invariable custom is to suspend all kinds of work in the middle of the day. The town is well watered, from the numerous streams of the island, and is conducted through stone aqueducts.

From a late letter writer in a San Francisco paper, who visited Hongkong in the *Colorado* on her first trip, we make the following extracts of interest in regard to Hongkong. We will observe, however, in passing, that the estimate of the number of foreign residents strikes us as being too small.

"The European population—under which term the Americans are also included—numbers about five hundred. The merchants mostly live in the same buildings in which they do business; the clerks, for the most part, boarding and living with their employers. The Chinese

population numbers about forty thousand, their quarter being at the western end of the settlement, called the Tai-ping-shang. A San Franciscan cannot but remark the cleanliness of the streets in this quarter, when compared with the disgustingly filthy condition of that portion of San Francisco occupied by the Chinese. This is owing to the very strict municipal regulations, and the severity of punishment inflicted for any infringement of the same. There is a large police force, consisting of Sepoys and Chinamen, officered by Europeans. The mode of punishment adopted toward the Chinese is rather severe under the administration of the present governor. For a light offence the culprit is imprisoned for a few days, then branded on the ear, and ordered to leave the colony, for which purpose he is provided with sufficient means. Should he ever return, and be caught, he is publicly whipped and sent off again; and the whipping is no joke I assure you. This severity has had the effect to greatly lessen crime amongst Chinese, and gives entire satisfaction, not only to the Europeans, but also to the better class of Chinese. The governor of the island is absolute. There is a council, appointed by the Crown, upon the recommendation of the governor.

There are three churches in Hongkong—one Protestant Episcopal, one Catholic, and one Presbyterian. They are all handsome buildings, the Protestant Cathedral, especially, and on Sundays one is always sure to see a large portion of the Europeans at one or other of the churches.

The Government buildings are also large and commodious—the Post Office, particularly; and although the letter business of the place is not one-third that of San Francisco, this building is twice as large as ours—from which the U. S. Government might draw a wholesome lesson. The Jail, also, is a model of a well-built and ventilated establishment, and although the majority of prisoners are Chinese, it is kept scrupulously clean. At present there are but 800, although the number has been as high as 1,600.

The hotels of Hongkong are nothing to boast of. Hitherto there has been but little business for them, as most of the visitors to the place were called there on business, and bringing letters of introduction with them were accommodated by resident firms, and the hospitality of the people in Hongkong, and, in fact, of the Europeans throughout China, is proverbial. But of late years travel having increased to a considerable degree, the necessity for hotels has become more apparent, as it is impossible for the residents here to accommodate indiscriminately every one who may bring a letter of introduction with them. The Hotel d'Europe heads the list, although, of course, there are several smaller and less convenient ones. The former, however, although by no means equal to what the Americans generally consider a good hotel, is nevertheless kept in a very respectable style by a Frenchman, and is, in fact, the only one fit to stop at. An association has been formed who are building a commodious and large establishment, which is to be kept more on the English, or American style.

Hongkong boasts of but one newspaper, *The China Mail*, from the

issue of which for Feb. 17, we extract the following words of cheer for the *Colorado* :

Before our next issue the *Colorado* will be some hundreds of miles on her return to San Francisco, having opened a line of communication between the Eastern and Western worlds, and marked the accomplishment of an object at which the Americans have always more or less vigorously aimed. We do not wish to inquire too curiously into the past history of the American trade with the South of China ; nor perhaps would we willingly drag to light some of the incidents of the earlier career of the old East India Company in Hindostan. Wherever a foreign trade has to be forced upon unappreciative natives of a strange country, circumstances must occur painful to the feelings of any good man who does not happen to be engaged in the said trade. But so rapid has been the march of events, and we may say the change of policy, as regards Asiatic nations both in England and America, that we can afford to let by-gones be by-gones and wish our cousins all the success to which their energy and enterprise so fairly entitle them. The new year has been inaugurated by an event which must at least occupy a line or two in Universal History ; the completion of a line of regular communication round the world. One cannot but regard the *Colorado* with peculiar interest as being the vessel which has thus carried out what but a few years ago was considered but the visionary scheme of a mad enthusiast. England commenced it by bridging with steam the oceans of the Eastern hemisphere, and America, her worthy successor in the Western world, has completed her undertaking. The *Colorado* will convey to America the first Pacific steam-carried inward mail from China to that continent. In this capacity, no less than for intrinsic merits, we wish her God speed on her homeward voyage.

Doubtless the establishment of a company which for 300 dollars, 200 dollars, or 100 dollars will take a European passenger, and for 50 dollars a Chinese, from Hongkong or Shanghai to San Francisco, and whose list of ships comprise four steamers of and above 4,000 tons burden, combining comfort, safety, and low fares to an extent hitherto unheard of, is likely to affect our own companies at first ; but universal experience has shown that traffic increases in exact proportion to the facilities afforded for intercommunication between port and port.

LOSS OF THE BARQUE DANIEL WOOD.

BEFORE daylight on Wednesday morning Captain J. Richmond, with a boat's crew of the whaling bark *Daniel Wood*, belonging to New Bedford, arrived at Honolulu in a whale boat from French Frigate Shoals, where the bark was wrecked April 14th. It will be remembered that the whale ship *South Seaman*, a fine, nearly new vessel, was lost March 13th, 1859, on the same shoals, which consist of a series

of rocks, reefs, and sandbanks, located about four hundred and fifty miles to the north and west of these islands. Owing to their low position, being in no case more than six feet elevation above the sea, and also the fact that strong and variable ocean currents prevail in their neighbourhood, they are peculiarly dangerous to navigators, especially to ships bound hence to the northward. On some of the islets, which are very small, consisting of only an acre or two each, a limited supply of brackish water can be obtained, although that is not to be depended on at all seasons. Turtle usually abound, and fresh fish are easily taken, while sea birds flock there in myriads to deposit their eggs, which, contrary to general supposition, are very palatable and devoid of fishy taste.

The *Daniel Wood* arrived at Honolulu on the 5th of April, from a cruise to the westward, with a hundred and odd barrels of sperm oil, which was here discharged for shipment home, the bark leaving again on her cruise to the northward on the 10th. On Saturday, the 13th, Captain Richmond ascertained his position at three p.m. to be lat. $23^{\circ} 10'$, and long. $164^{\circ} 20'$, the shoal on which the vessel afterwards struck, which is known on the chart as Basse Française Shoal, then bearing west by north half north, distant eighty-five miles. The course of the vessel was given north-west, which would have made, with the variation, a course of north-west by north, and if no currents had interfered, and the position of the shoal been correctly laid down, the vessel would have gone forty-five miles to the windward of all danger. On Saturday night the weather was beautiful, with a clear atmosphere, and a full moon, and the bark, under all sail, was steadily pursuing her course with a fine favourable breeze.

At one o'clock Sunday morning, Captain Richmond, who was below, heard the second officer, in charge of the deck, shout to the man at the wheel: "Hard up the helm!" The Captain immediately sprang up on deck and ordered the vessel to be put about; but before this could be accomplished she struck heavily on the reef, and pounding her way over the first or outer rock, went on to the inner ones. Here the breakers were reached, about half a mile from the place where she first struck, and the vessel heeled over to the blows of the breakers. It having become apparent that she could not be saved and was about breaking up, the masts were cut away to keep her upright. The crew all went into the boats with the Captain, second officer, cooper and three seamen, who remained on board as long as safety would admit, and got about a hundred gallons of water into their boat before leaving. At daylight the only sign of terra firma in sight was a bleak looking rock, for which the boats pulled. At a distance of fifteen miles from the ship they reached a small sand bank, barren, with the exception of here and there a tuft of grass.

On Monday morning they again boarded the ship, through a heavy sea, and the Captain was washed overboard, but fortunately regained the deck. On this occasion they secured six casks of water and a lot of bread and meat. It occupied them a whole day and a good part of one night, to tow the casks of water to the sand bank through tortuous

channels, and on getting there the men were given each a pint of fresh water. On broaching two of the casks they were found to contain *salt water*, and they were the first of the six that were landed. Imagine the feelings of these shipwrecked mariners when the thought arose that they were on "a lone barren isle," without fresh water!

On Monday noon the ship broke up, and the Hawaiians of the crew, expert swimmers, were active in the water in securing provisions. The Captain decided at once to proceed to Honolulu for assistance. Taking a favourite large whale-boat, named the *Ann E. Wilson*, he put on her what the sailors call a "sister gunwale" and a "washboard," and declared his intention to start for Honolulu. As an instance of Yankee enterprise and determination of character, under difficult circumstances, it is well to mention that the only tools the Captain and his men had to operate with in making their boat seaworthy for the long and perilous voyage of nearly five hundred miles to this port, was a saw, a hammer and a chisel. The nails with which to fasten their work they had to draw from the fastenings of the other boats.

On Tuesday, the 16th, the boat being ready, the Captain, second officer and six men embarked at three p.m., with a necessarily limited stock of water and bread, bound for Honolulu, leaving twenty-seven of their shipmates on the sand bank, doubtless with a feeling of uncertainty, both on the part of those who went and those who remained, as to whether they should ever see one another again. One party left on an unfrequented barren sand beach in mid-ocean, and the other, with scanty provisions, undertaking, in an open boat, a sea voyage of hundreds of miles.

For the first four days after leaving the shoal the *Ann E. Wilson* encountered strong winds from the north and north-north-east, but made very good headway in the desired direction, sometimes pulling and sometimes sailing when the wind gave a slant. For prudential reasons all hands in the boat were put on an allowance of one pint of water and one biscuit a day. Thus they struggled on, until Sunday morning, April 23rd, when they made the Island of Niihau. Landing there, they were most hospitably and kindly received by the proprietors of the Island, Captain Sinclair and family, of whom Captain Richmond speaks in the highest terms. Leaving Niihau at six o'clock on Monday morning, they continued their course for Honolulu without touching at Kauai. During that night they spoke the *Monticello*, Captain Phillips, who gave them the course to steer, their compass having become disarranged. On Tuesday night they spoke the *Massachusetts*, Captain Williams, who hove his ship to and insisted upon their coming on board and taking some refreshments. They landed at the wharf in Honolulu on Wednesday morning, at three o'clock, after an open boat voyage of eight days, during tempestuous weather and on starvation rations.

As soon as the facts became known to General Smith, the American Consul at this port, preparations were at once made to get the United States steamship *Lackawanna*, Captain Reynolds, ready for sea to proceed to French Frigate Shoals, for the purpose of rescuing the

shipwrecked officers and crew of the *Daniel Wood*. She was made ready with all possible dispatch, and sailed on Thursday, at one o'clock, and will probably be absent on her errand of mercy about a week or ten days. Her presence here is quite fortunate on this occasion, and forcibly illustrates the propriety of the policy which we have repeatedly urged, that the American Government should always have a war vessel either at or in the neighbourhood of Honolulu. Just now, in these "piping times of peace," what better occupation for one of "Uncle Sam's bull-dogs" than to succour his shipwrecked mariners from a barren sand spit where, without this timely assistance, they all might have perished.

In this connection it may not be amiss to refer back to the loss of the whaleship *South Staman*. From a letter of Capt. Norton's, published in *The Pacific Gazette*, we learn that she left Honolulu March 19, 1859, and ran on to the shoal at 5 a.m. on the morning of the 13th following. The vessel was a total loss. A few gallons of water and some hard bread were safely landed, and the Captain and crew decided to start in whaleboats for Guam. Just as they were leaving on their voyage, they fell in with a boat belonging to the schooner *Kamehameha IV.*, which was on a wrecking cruise in that neighbourhood. She took half the crew on board, and was twelve days reaching Honolulu. Returning to the shoal she brought the remainder of the men to Honolulu.

There are six small islets, the largest of which contains only an acre or so of surface. The reef extends northwest and southwest, and is variously estimate at 25 to 35 miles long. Capt. Norton took an observation on the largest islet, and placed it in $166^{\circ} 16'$ west long, and $23^{\circ} 40'$ north lat. Bowditch places it in $165^{\circ} 59'$, and Lieut. Brooks of the *Fenimore Cooper*, in $166^{\circ} 25'$. Captain Norton's position is believed to be most correct.

The arrival of Captain Richmond and a portion of his crew on Wednesday morning, after a cruise of four hundred and fifty miles in an open whale boat, affords another instance of the daring of American seamen. Had the strong north-east trades been blowing, the chances of this boat reaching this group would have been small. A northerly wind, with unusually good weather, favoured the little craft, which arrived at this port safely. When it is remembered that schooners are usually ten or twelve days making the passage, any unbiassed mind will recognize the hand of a kind Providence directing the winds and the waves, and thus favouring the timely rescue of the seamen still remaining on the barren sand bank of French Frigate Shoal.

Naval Chronicle.

[With the view of adding to the utility of our pages we propose to record the names of the Royal Navy in commission at the commencement of each quarter, as an important feature in our Naval Chronicle.]

SHIPS OF THE BRITISH NAVY IN COMMISSION.

Name of Vessel.	No. of Guns.	Horse Power.	Commander's Name.	Station.
Aboukir	86	400	Commodore Sir F. L. M'Clintock, K.C.B. Com. G. M. Smith ...	Jamaica
Achilles	26	1250	Capt. E. W. Vansittart...	Channel Squadron
Active	20	...	Com. G. G. Duff	Sunderland
Adventure ...	2	400	Capt. C. L. Waddilove ...	China
Alert	17	100	Com. H. H. Knocker ...	Pacific (ord. home)
Algerine	1	80	Lieut. C. E. Domville ...	China
Antelope	3	260	" J. Bruce	W. Coast of Africa
Arethusa	35	500	Capt. R. Coote	Mediterranean
Argus	6	300	Com. F. W. Hallows ...	China
Asia	...	...	Capt. W. C. Chamberlain Flag of Rear-Admiral Wellesley, C.B.	Portsmouth
Assurance.....	4	200	Com. W. H. Pym	W. Coast of Africa
Aurora	35	400	Capt. A. F. R. de Horsey	N. Amer. & W. Ind.
Barracouta ...	6	300	Com. G. D. Bevan	N. Amer. & W. Ind.
Basilisk.....	6	400	Capt. W. N. Hewitt, V.C.	China
Bellerophon ...	14	1000	" R. J. J. G. Mac- Donald	Channel Squadron
Boscawen	20	...	Com. MacLeod B. Cock- craft.....	Portland
Brilliant	16	...	" J. E. Bickford	Dundee
Brisk	16	250	Capt. C. W. Hope.....	Australia
Bristol	31	600	" L. E. H. Somerset Commodore G. T. P. Hornby	W. Coast of Africa
Britannia	8	...	Capt. G. G. Randolph ...	Dartmouth
Cadmus	21	400	" A. C. Gordon	N. Amer. & W. Ind.
Caledonia	31	1000	" A. H. Gardner. Flag of Vice-Admiral Lord C. Paget, C.B.	Mediterranean
Cambridge ...	...	...	Capt. the Hon. F. A. C. Foley	Devonport
Cameleon	17	200	Com. W. H. Annesley ...	Pacific
Caradoc.....	2	350	Lieut.-Com. E. H. Wil- kinson	Mediterranean
Castor	22	...	Com. E. C. Symons	Shields
Challenger ...	18	400	Commodore R. Lambert, C.B. Com. C. J. Brown- rigg	Australia

Name of Vessel.	No. of Guns.	Horse Power.	Commander's Name.	Station.
Chanticleer ...	17	200	Com. W. W. S. Bridges...	Pacific
Charybdis ...	17	400	Capt. A. Mc. L. Lyons...	Australia
Clio	22	400	" N. E. B. Turnour	Pacific
Columbine ...	4	150	Com. J. E. Erskine	Pacific (ord. home)
Constance ...	39	500	Capt. E. K. Barnard	N. Amer. & W. Ind.
Cordelia	11	150	Com. T. A. de Wahl.....	N. Amer. & W. Ind.
Cormorant ...	4	200	" G. D. Broad.....	China
Cruiser	5	60	" M. Singer.....	Mediterranean
Cumberland ...	24	...	Capt. the Hon. A. A. Cochrane, C.B.	Sheerness
Cygnets	5	80	Com.—	N. America and W. Indies (ord. hom.)
Daphne	4	300	Com. G. L. Sullivan	Devonport
Dart	5	80	" M. Lowther	W. Coast of Africa
Dædalus	16	...	" I. T. M. Nicholl	Bristol
Dasher	2	100	" J. H. Bushnell.....	Channel Islands
Dauntless	31	580	Capt. E. P. B. Von Donop	The Humber
Donegal	81	800	" E. W. Turnour ...	Liverpool
Doris	24	800	" C. Vesey	N. Amer. & W. Ind.
Dromedary ...	2	100	Staff-Com. J. H. Allard	W. Coast of Africa
Dryad	4	300	Com. T. H. B. Fellowes...	Devonport
Duke of Wellington ...	49	700	Capt. C. Fellowes	Portsmouth
Duncan	81	800	" G. Hancock	North Britain
Eagle	16	...	Com. W. E. Fisher	Liverpool
Egmont	4	...	Capt. H. F. W. Ingram...	Rio de Janeiro
Endymion ...	21	500	" C. Wake	Mediterranean
Enterprise ...	4	160	Com. G. S. Bosanquet ...	Mediterranean
Esk	21	250	Capt. J. P. Luce	Australia (ord. home)
Espoir	5	80	Com. M. S. L. Peile	W. Coast of Africa
Excellent	...	...	Capt. A. W. A. Hood ...	Portsmouth
Falcon	17	100	Com. W. H. Blake	Australia
Favourite	10	400	Capt. F. H. Shortt	N. Amer. & W. Ind.
Fawn	17	100	Com. C. A. J. Heysham...	N. Amer. & W. Ind.
Fisgard	42	...	Capt. W. Edmonstone, C.B.	Woolwich
Flora	40	...	" A. Wilmhurst	Ascension
Formidable ...	26	...	" D. Mc L McKenzie Flag of Vice-Adml. Sir B. W. Walker, K.C.B.	Sheerness
Fox	2	200	Staff-Com. Moriarty.....	Particular Service
Frederick William	74	500	Capt. J. J. Kennedy, C.B.	The Shannon
Galatea	26	800	" H. R. H. the Duke of Edinburgh, K.G. ...	Particular Service
Gannet	3	150	Com. W. Chimmo	N. Amer. & W. Ind.
Ganges	20	...	" J. E. M. Wilson ...	Falmouth
Gladiator	6	430	Capt. E. D'O. D'A. Aplin	Particular Service
Greyhound ...	5	200	" C. Stirling	W. Coast of Africa
Helicon	...	250	Com. E. Field	Channel Squadron
Hesper	2	150	Staff-Com. J. G. H. Thain	China (ord. home)

Name of Vessel.	No. of Guns.	Horse Power.	Commander's Name.	Station.
Hibernia	104	...	Com. G. L. Norcock. Flag of Rear-Admiral H. Kellett, C.B.	Malta
Highflyer	21	250	Capt. T. M. S. Pasley ...	East Indies
Himalaya	2	700	" S. B. Piers	Particular Service
Hydra	1	220	" P. F. Shortland ...	Mediterranean
Icarus	3	150	Com. S. P. Townsend ...	China
Implacable ...	24	...	" P. W. Pellew	Devonport
Impregnable ..	78	...	Capt. F. S. Tremlett	Devonport
Iudus	...	...	" G. O. Willes, C.B.	Devonport
			Flag of Rr-Adml. the Hon. J. R. Drummond, C.B.	Devonport
Industry	...	80	Staff-Com. C. T. Youel ...	Particular Service
Investigator ...	2	34	Lieut.-Com. A. E. Kay ...	W. Coast of Africa
Irresistible ...	60	400	Capt. J. Borlase, C.B. ...	Southampton Water
Jackal	1	150	Lieut. A. E. Dupuis	W. Coast of Scotland
Jason	17	400	Capt. C. M. Aynesley ...	N. Amer. & W. Ind.
Landrail	5	80	Com. H. L. A. L. Maitland	W. Coast of Africa
Lion	60	400	Capt. J. M. Hayes, C.B.	Greenock
Liverpool	39	600	" J. Seccombe	Particular Service
Lizard	1	150	Lieut. S. G. Price	Sheerness
Lord Clyde ...	24	1000	Capt. R. Dew, C.B.	Channel Squadron
Lyra	7	60	Com. R. A. Parr	East Indies
Malacca	13	200	Capt. R. B. Oldfield	Pacific
Megæra	4	350	" J. Simpson	Particular Service
Minotaur	26	1350	" J. G. Goodenough. Flag of Rear-Admiral F. Warden, C.B.	Channel Squadron
Mutine	17	200	Com. W. Swinburn	Pacific
Mullet	5	80	" C. A. P. V. Robinson ...	W. Coast of Africa
Murkin	50	...	Capt. R. Hall	Pembroke
Narcissus	35	400	" J. C. Wilson. Flag of Rear-Admiral G. Ramsay, C.B.	S. E. Coast America
Nassau	5	150	Capt. R. C. Mayne	Straits of Magellan
Nereus	6	...	Master J. P. Dillon	Valparaiso
Niger	13	350	Capt. J. M. Bruce	N. Amer. & W. Ind.
Nimble	5	80	Com. A. J. Chatfield	N. Amer. & W. Ind.
Niobe	4	300	" T. K. Mackenzie ...	Devonport
Nymphe	4	300	" T. Barnardiston ...	Woolwich
Oberon	3	260	Lieut.-Com. H. Hand ...	W. Coast of Africa
Ocean	24	1000	Capt. C. S. S. Stanhope	Mediterranean
Octavia	35	500	Commodore L. G. Heath, C.B. Com. M. G. Jackson	East Indies
Orontes	2	500	Capt. H. Phelps	Particular Service
Osprey	4	200	Com. W. Menzies	China (ord. home)
Pallas	6	600	Capt. M. Connolly	Channel Squadron
Pearl	21	400	" J. F. Ross	China
Pelorus	21	400	" W. H. Haswell ...	China (ord. home)

Name of Vessel.	No. of Guns.	Horse Power.	Commander's Name.	Station.
Pembroke ...	25	200	Commodore J. W. Tarleton. C.B. Capt. Hon. J. W. S. Spencer	Harwich
Penguin	5	80	Lieut. E. St. J. Garforth	East Indies
Perseus	15	200	Com. C. E. Stevens	China
Peterel	3	150	„ W. E. Gordon	Cape of Good Hope
Phœbe	35	500	Capt. T. Bythesea, V.C.	Devonport
President	16	...	Com. H. W. Comber	City Canal
Prince Consort ..	31	1000	Capt. E. A. Inglefield ...	Mediterranean
Princess Charlotte	12	...	„ O. J. Jones	Hong-Kong
Princess Royal ..	73	400	„ W. G. Jones. Flag of Vice-Admiral G. St. V. King, C.B.	China (ord. home)
Racer	11	150	Com. L. Brine	Mediterranean
Racoon	22	400	Capt. R. Purvis	Cape of Good Hope
Ranger	5	80	Com. W. A. Cambier ...	W. Coast of Africa (ord. home)
Rattler	17	200	„ J. T. Swann	China
Reindeer	7	200	„ E. Nares	Pacific
Research	4	200	„ A. Morrell	Particular Service
Revenge	73	800	Capt. G. LeG. Bowyer	Pembroke Dock
Rifleman	5	100	Mas.-Com. J. W. Reed	China Seas
Rinaldo	7	200	Com. W. K. Bush	China
Rodney	78	500	Capt. A. C. F. Heneage. Flag of Vice-Admiral Sir H. Keppel, K.C.B.	China
Royal Adelaide ..	26	...	Capt. W. G. Preedy, C.B. Flag of Admiral Sir W. F. Martin, Bt., K.C.B.	Devonport
Royal Alfred ..	18	800	Capt. F. A. Herbert. Flag of Vice-Admiral Sir G. R. Mundy, K.C.B.	N. Amer. & W. Ind.
Royal George ..	72	400	Capt. T. Miller	Kingstown
Royal Oak ...	35	800	„ the Hon. G. D. Keane	Mediterranean
St. George ...	72	500	„ M. S. Nolloth	Portland
St. Vincent ...	26	...	Com. R. Carter	Portsmouth
Salamander ...	6	220	„ G. S. Nares	Australia (ord. hom.)
Salamis	...	250	„ F. G. Suttie	China
Satellite	17	400	Capt. J. Edye	China
Scout	21	400	„ J. A. P. Price	Pacific
Scylla	21	400	„ R. W. Courtenay ...	China (ord. home)
Sealark	8	...	Lieut. J. N. Croke	Devonport
Seringapatam ...	...	...	Commodore H. Caldwell	Cape of Good Hope
Serpent	4	200	Com. C. J. Bullock	China
Sharpshooter ..	6	160	Lieut. B. W. Bax	S.E. Coast America
Shearwater ...	4	150	Com. T. E. Smith	Pacific (ord. home)
Shmoon	4	400	Capt. T. B. Lethbridge ...	Particular Service
Slaney	1	80	Lieut. W. F. L. Elwy ...	China
Snipe	5	80	Com. H. A. Trollope	W. Coast of Africa (ord. home)

Name of Vessel.	No. of Guns.	Horse Power.	Commander's Name.	Station.
Sparrow-hawk	4	200	Com. E. A. Porcher	Pacific
Sphinx	6	500	Capt. B. V. Hamilton ...	N. Amer. & W. Ind.
Spiteful	6	280	Com. B. L. Lefroy	S.E. Coast America
Star	4	200	„ B. Bradshaw	East Indies
Steady	5	80	„ J. P. J. Parry	Devonport
Supply	2	80	Staff-Com. C. Bawden...	Particular Service
Sutlej.....	35	500	Capt. T. P. Coode. Flag of Vice-Admiral Hon. J. Denman	Pacific (ord. home)
Sylvia	5	150	Com E. W. Brooker.....	China Seas
Tamar	2	500	Capt. F. W. Sullivan, C.B.	Particular Service
Terrible	19	800	„ J. E. Commerell, V.C., C.B.	Particular Service
Terror	16	200	„ J. F. B. Wainwright	Iternuda
Topaze	31	600	Com. B. A. Powell, C.B.	Pacific
Torch	5	80	„ G. A. Douglas.....	W. Coast of Africa
Trincomalee...	16	...	„ W. J. Pollard	Hartlepool
Triton	3	260	Lieut.-Com. R. H. Napier	S.E. Coast America (ord. home)
Urgent	4	400	Capt. S. H. Henderson...	Particular Service
Valorous	16	400	„ C. C. Forsyth	Cape of Good Hope (ord. home)
Vestal	4	300	Com. S. P. Brett	W. Coast of Africa
Victoria	102	1000		Portsmouth (to pay off)
Victory	12	...	Capt. Hon. F. Egerton. Flag of Vice-Admiral Sir T. Pasley, Bart. ...	Portsmouth
Vigilant	4	200	Com. R. A. O. Brown ...	East Indies
Viper	2	166	„ H. E. Crozier	Sheerness
Virago	6	220	„ H. M. Bingham ...	Australia
Warrior.....	32	1250	Capt. J. Corbett. Flag of Rr.-Adml. C. Frederick	Queenstown
Wasp.....	13	100	„ N. B. Bedingfield...	East Indies
Wellesley	72	...	„ W. H. Stewart, C.B.	Chatham
Winchester ...	12	...	Com. G. M. Balfour	Aberdeen
Wolverine.....	21	400	Capt. T. Cochrane	N. Amer. & W. Ind.
Wyvern	4	350	„ H. T. Burgoyne, V.O.	Particular Service
Zealous	20	800	„ R. Dawkins. Flag of Rear-Admiral Hon. G. F. Hastings, C.B....	Pacific
Zebra	7	200	Com. E. J. Pollard	China

Nautical Notices.

[Communications for the Editor of the *Nautical Magazine* to be addressed to him at 31, Poultry.]

PARTICULARS OF LIGHTS RECENTLY ESTABLISHED.

(Continued from page 408.)

Name.	Place.	Position.	F. or R.	Ht. in Ft.	Dist seen Mls	[Remarks, &c. Bearings Magnetic.]
38. Ireland, Waterford	Spit Point of Passage	Seven Miles within the entrance	F.	...	...	Est. 15th August, 1867. Beacon pole and barrel removed. See directions in note (a.)
39. Aransas Pass	Coast of Texas, Low Island	... ..	F.	64	12	Est. 15th June, 1867. See note (b.)
Little Egg Har- bour near En- trance	Tucker's Beach, New Jersey	39° 30' 3 N. 74° 16' 8 W.	F.fl.	...	12	Est. 20th June, 1867, varied by a flash every minute. See note (c.)
40. Prince Ed- ward Island	East Point	46° 27' 1 N. 61° 58' 3 W.	F.	313	18	Est. 30th July, 1867.

F. Fixed. F.fl. Fixed and Flashing. R. Revolving. I. Intermitting. Est. Established.

(a.) IRELAND—SOUTH-EAST COAST.—*Fixed light in Waterford Harbour.*—The light is a *fixed red* light. The lighthouse is built on seven iron piles. The beacon pole and barrel recently standing on the site of the Passage lighthouse have been removed.

DIRECTIONS.—To a vessel entering the harbour the Passage light will first become visible when she is half a mile above Duncannon fort, the light then bearing N.N.W. $\frac{1}{2}$ W., distant nearly one mile. By keeping the light open on the port bow, and while passing giving it a berth of half a cable, a vessel will pass through the best part of the channel leading to the Passage anchorage and can there bring up in safety.

[All Bearings are Magnetic. Variation 24° in 1867.]

(b.) UNITED STATES—COAST OF TEXAS.—*Fixed light at Aransas Pass.*—The light is a *fixed white* light, at an elevation of 64 feet above the mean level of the sea, and should be seen in clear weather at a distance of 12 miles. The illuminating apparatus is dioptric or by lenses, of the fourth order. The light when bearing N.W. $\frac{1}{2}$ W. will be seen between the two points of the Pass; but as the bar frequently shifts, no directions can be given for crossing without a Pilot.

(c.) NEW JERSEY.—*Light near the entrance to Little Egg Harbour.*—The light is a *fixed light* varied by a *flash every minute*, and should be seen in clear weather at a distance of 12 miles. The illuminating apparatus is

of the fourth order. The tower is white, and stands in lat. $39^{\circ} 30' 18''$ N. and long. $74^{\circ} 16' 48''$ West of Greenwich.

[All Bearings are Magnetic. Variation at Aransas Pass $8^{\circ} 45'$ East in 1867.]

CHINA PILOT.—NOTICE 4.—In consequence of the total wreck of the *Corra* steamer at night, on her passage from Hong Kong to Yokohama, in January last, on a sunken rock supposed to exist about $1\frac{1}{2}$ miles to the southward of Flat reef, one of the dangers near Breaker point, on the east coast of China, and which rock did not appear on the Admiralty charts, the neighbourhood of this point has been closely examined and sounded; the following information relative to this examination has been received from Mr. J. W. Reed, Master, R.N., commanding H.M. Surveying Vessel *Rifleman*, 1867.*

Corea Rock.—A pinnacle of 14 feet at low water spring tides and 6 fathoms around it, stands two thirds of a mile S.W. $\frac{1}{4}$ S. from Flat reef, with the summit of the islet westward of Flat reef bearing N.N.W. $\frac{1}{4}$ W., distant a large mile; Dome hill N.E. $\frac{1}{4}$ E., about $2\frac{1}{2}$ miles; and Breaker point N.E. by E. $\frac{1}{4}$ E., $2\frac{1}{2}$ miles.

The Three Fathoms Patch.—Is westward of the Corea rock a cable and a half, with 3 to 5 fathoms water over it, and 7 fathoms around. From the 3 fathoms spot the summit of the islet westward of Flat reef bears N. by W. $\frac{3}{4}$ W., distant about a mile; Dome hill N.E. $\frac{1}{4}$ E., $2\frac{1}{2}$ miles; and Breaker point N.E. by E. $\frac{1}{4}$ E., $2\frac{1}{2}$ miles.

Sunk Rock.—Has but 7 feet water over it at low water springs being the shoalest part of a rocky patch about a cable across. From this rock the summit of the islet westward of Flat reef bears N. $\frac{1}{4}$ E., distant half a mile; Dome hill N.E. by E. $\frac{1}{4}$ E., $2\frac{1}{2}$ miles; and Breaker point E. by N. $\frac{1}{4}$ N., 2.8 miles.

When on Sunk rock, the black rock (15 feet high,) and the rock (12 feet high,) respectively to the West and N.W. of Flat reef, are in line.

Soundings.—The depths outside of these dangers are regular, but between the Corea rock and Flat reef are very irregular, with numerous patches of 3 to 5 fathoms.

Flat Reef.—Is a bed of dark-coloured rocks, half a cable in extent, crowned with two conspicuous masses 12 feet above high-water mark. A quarter of a mile W. by N. $\frac{1}{4}$ N. from Flat reef is a small black rock 15 feet, and N.N.W. half a cable, another, 12 feet above high water.

General Remarks.—Dome hill seen from the westward has the appearance of a Dome, but is by no means conspicuous when passing at a moderate distance southward of Flat reef, and when seen from off Breaker point it is still less conspicuous, appearing then as a low straggling sand-hill.

No safe judgment could be formed at night as to the distance of the land, although the weather—during the three nights the *Rifleman* remained there—was clear and starlight, and the horizon to seaward plainly visible. The islet could only be made out with difficulty from a distance of 2 miles, and Breaker point from a distance of $2\frac{1}{2}$ miles could not be distinguished. The range of dark hills seen over the high sandy coast is very deceptive at night, and Dome hill can then very seldom indeed be recognised with certainty; strangers cannot do so readily by daylight, and at night are very liable to mistake for it a round-shaped hill at the extremity of the back range.

*See Admiralty Chart, Chelang point to Chauan bay, No. 1963; also the China Pilot, 4th Edition, page 98.

For these reasons sounding only can be relied upon to enable vessels to pass the above dangers safely at night; when by keeping in depths of 11 or 12—but not less than 11 fathoms, they will pass from one to two miles to the southward of the Corea rock.

[*All Bearings are Magnetic. Variation 2° Easterly in 1867.*]

VANCOUVER ISLAND PILOT.—NOTICE 1.—(*Corrected Notice of No. 4, 1866.*)—*Rock in Seymour Narrows, Discovery Passage.*—A dangerous rock, with 3 fathoms water on it, has been discovered almost in the centre of Seymour narrows—but rather on the western side—between Maud island and Wilfred point. It lies S.W. $\frac{1}{2}$ W., nearly 3 cables from the north-west point of the island, and N.N.E. $\frac{1}{2}$ E. 3 cables from the south-east extreme of Wilfred point; it is near the position of the heaviest part of the tide race.

The passage is therefore dangerous for large vessels during the strength of either stream, and it is recommended to enter it—especially from the southward—at slack water, and to pass on the eastern side of the rock.

[*All Bearings are Magnetic. Variation in 1867, 23 $\frac{1}{2}$ ° Easterly.*]

See Admiralty Charts:—Vancouver Island, No. 1917; North America, West Coast, Strait of Georgia, Sheet 2, No. 580; Seymour Narrows, No. 588; and Vancouver Island Pilot, page 157.

THE LOSS OF IRON SHIPS.

THIS question, which has recently excited so much attention amongst underwriters and shipowners, was incidentally discussed recently at Liverpool, at the annual meeting of the Maritime Insurance Company (limited), the directors of which are all largely interested in shipping. The general opinion of those present was that the risks on iron ships were unduly great. 1st. From the use of cement and iron ballast. Vessels at present, it was stated, are constructed to float on rather than in the water, and, consequently, they had to be weighted down to a certain depth by iron. For instance, a first-class merchant ship (A 1 twenty years at Lloyd's) had 200 tons weight of iron on her ties and rivets. It was also urged that the space occupied by iron ballast filled the space which would otherwise be occupied by the leakage water, which was in consequence thus frequently forced to an undue height to the great injury of the cargo. 2nd. The deviation of the compasses was another serious and frequent cause of risk, and it was recommended that all iron ships should carry a compass on the mainmast, twenty feet above deck. It was also remarked that Shipmasters very often did not make sufficient allowances for these deviations. 3rd. It was urged that another great cause of risks was attributable to the fact that young and inexperienced Captains were allowed to command large vessels, while old and experienced Masters were not sufficiently encouraged. It was also recommended that not only should more care be taken with the compasses, but that the instructions with regard to the use of the lead should be very strict, and that Shipowners and Underwriters should endeavour to show their warm and liberal appreciation of careful and experienced navigation.

REFUGE HARBOURS.

SOME ill informed landsman who may have profited more by the insurance office than by the working of his ships, has adopted the opinion that harbours of refuge are the graves of seamanship. It would afford this gentleman a good lesson to be caught in one of his own craft on a lee shore in a gale of wind, where he could find no harbour of refuge, that he might be cast away with his own ship and her crew, that he would thus consign to perdition instead of being able to go to the insurance office and realize the money (and for aught any one may know) more than the money that she cost him. Such a friend to seamen, we say, would be served quite right, but unhappily these gentlemen are the only parties who do not suffer on such occasions. So that on they go and flourish with their very *considerate* doctrines. Happily common sense people look on harbours of refuge in a different light, as will be seen by the following extract from the *Morning Post* on the subject.

"Harbours of refuge have been called the graves of seamanship, and they no doubt have a tendency to produce a certain laxity and carelessness among so proverbially foolhardy a class as sailors; but that, of course, is no reason why they should not be constructed, any more than it would be a reason against increasing the other means of securing men from danger, and in the abstract it would be desirable, if it could be effected, to build harbours of refuge every five miles round our stormbound coasts. When the question of providing the money, however, comes to be considered, it is generally found that the conviction of the advantages to be derived is not strong enough to induce those for whose advantage harbours are made to provide the funds necessary, and Ministers do not like to come upon the people at large, and thus it happens that there are much fewer harbours fit to receive and shelter vessels of all sizes, in all weathers, than either the ship-owners or the philanthropists desire to see. The importance of this question of money will be appreciated by those who study the return now in question, and it will be seen that the expense of forming, by artificial means, a good safe anchorage, even in localities where nature has already done much, is very great indeed, and not to be undertaken except for the strongest reasons.

"The return now before us refers to the four great undertakings at Dover, Alderney, Portland, and Holyhead, all of which are now fast approaching completion. At Dover, the pier which is familiar to all travellers, and which forms the breakwater or western arm of the harbour of refuge, was commenced as long ago as October, 1847, and has been advanced to a state which renders it a perfect delight to embark and disembark there for the Continent. The estimated cost of this work is £725,000, of which £611,277 has already been spent, and the further extension of the pier, which was decided upon this year, has already been begun and is progressing fairly. Although not offering any very great natural advantages for the formation of a har-

bour of refuge, Dover is yet from its position, in the very heart of the Channel trade, the spot of all others where such a harbour is most desirable, and there is no doubt that the present works when completed will offer a very considerable advantage to vessels which may be caught in bad weather either coming up or going down Channel.

"At Alderney a breakwater was also begun in 1847, and now, twenty years afterwards, we are beginning to see the end of the undertaking, after an expenditure of no less than £1,130,013 out of the whole estimated cost of £1,800,000. These works, although more costly, will not probably be nearly so useful as those at Dover, but the navigation of the Channel Islands is beset with difficulties which are at any rate diminished by the new harbour, and for vessels bound to the south, round Ushant, Alderney is undoubtedly capable of being of much use.

"Portland is perhaps the finest and altogether the most valuable harbour we possess. The fine bay, sheltered on two of its sides by the Chesil Bank and the Isle of Portland, has been enclosed on a third side by a breakwater 8,500 feet, or nearly two miles long, stretching out towards Weymouth, and enclosing over 2,000 acres of the finest anchoring ground in the world. Whole navies could lie afloat in this port, secure from all the winds that blow; and, lying as it does directly in the track of all our westward-bound trade, its importance is incalculable, as may be judged by the crowd of vessels which flock in on the first approach of bad weather. This breakwater was begun in December, 1849, and has been completed now since December, 1866, with the exception of some minor works which are continued by separate contracts. The amount which, up to April last, had been expended on the undertaking is £1,002,248, or some £5,000 less than the original estimate, and this includes the cost of the convict labour which has been so largely employed in this work. No less than 5,627,654 tons of rough stone have been thrown into the sea to form this barrier, and so effectual has it been that the most violent gales have had no perceptible effect upon it, further than displacing a few blocks of stone which are at once reset.

"It is, however, at Holyhead, which lies directly in the course of all our American trade from Liverpool, and which is the door of communication with Ireland, that the greatest efforts are being and have been made. Thir harbour, as begun according to the original design of 1845, intended to provide for a small packet station, included an anchorage of two hundred and sixty acres; but this was reconsidered, the breakwater was extended, and it has now been carried 7,151 feet out into the sea, and encloses a sheltered anchorage of four hundred acres of deep water. In addition to this, piers and various conveniences have been established for the packet service to Ireland, which is certainly one of the best, if not the best, in the world, and deserves all that can be done and said for it. The old harbour, too, has been improved, and altogether £1,371,155 have been expended upon the works. By far the greater part of the breakwater is already actually completed, and the rest is not far behind; while the worth of the

harbour is shown by the fact that during the last year no less than 3,647 vessels, or upon an average ten per day, have availed themselves of the shelter it offers. The original estimate of £1,536,000 will certainly produce for us as good a harbour as could be made in that particular spot, and it will certainly not be grudged by the nation. But it is useful to keep this fact in mind, that our harbours of refuge do, as a rule, cost us from one to two millions each, and that it is therefore a serious matter to undertake their construction at the expense of the nation. The four we have mentioned are pretty fairly distributed among the lines of our great traffic, and it will be proper, for many reasons, to pause before we engage upon other works of a similar nature—unless, indeed, the shipowning interest is disposed to submit to the imposition of adequate dues to recoup the nation for its original expenditure.

LOSS OF HER MAJESTY'S SHIP OSPREY.

WE regret much having to record the following account of the loss of the *Osprey*, which we have no doubt has been occasioned by the strong westerly current on the southern African coast.

By the arrival of the Cape mail steamer *Briton* at Plymouth on the 23rd ultimo, we have detailed accounts of the loss of the *Osprey*, 4, screw gun vessel, commander William Menzies. The *Osprey* was on her way from the China station for England. Having crossed the Indian Ocean, she was running along the southern coast of the South African colonies with the intention of rounding Cape Agulhas, probably in sight, and calling in at Simon's Bay. On the evening of the 29th of May she was continuing this course under sail and easy steam, her reckoning being believed to make her about twenty miles from land. For two or three days previously the wind had been variable and strong. That evening the weather was very boisterous, and the sea heavy and chopping. During the night it came on to rain, with a strong north-west gale. Everything, however, was taut and trim, and although the night was pitch dark, no danger was apprehended. As the night progressed the wind increased, a very heavy sea set in, and the rain poured down in torrents. In the latter part of the middle watch, while it was yet dark, suddenly there was a sharp grating, grazing, hollow sound that made her quiver from stem to stern, and all hands were aroused to the fact that she had grounded on a shoal.

The situation was most appalling. A narrator who was on board says:—"The ship was gone. The fact was realized in a moment, and it was now her gallant captain's care to save life. 'Cheerily, my boys,' he said, and it was so, not a heart quailed. It wanted an hour of daylight, and the task of rescue was a difficult one. The dull, grating sound continued above the roar of the waters, and the vessel was filling where she struck amidsthips. All on board were calm, and

orders were promptly obeyed. She bumped and rolled, till at last a huge wave took her over a reef into a gully at least a hundred yards wide. As morning dawned land could be seen about two hundred yards from the ship, and boats were got out to take a line ashore. This was no easy task in broken water, and Acting Lieutenant Meade and two men who attempted it were capsized. Two men succeeded in swimming back to the ship. Lieutenant Meade struck out for the shore with the line, but it got entangled among the rocks, and was carried away. Nothing daunted, the gallant swimmer made a second attempt, again struck out for the shore, and after severe exertion succeeded in reaching land with the life line, by which all but one man were rescued. The crew consisted of eighty-three officers and men, all told; the poor fellow who was drowned was George Devereux, leading stoker, a native of Portsmouth, who leaves a wife and five children." The spot where the vessel struck is to the westward of Algoa Bay, near Klippen Point, about ten miles west of Cape St. Frances, and near the township of Humansdorp. The local papers speak very highly of the kindness experienced by the shipwrecked crew.

The only articles rescued from the wreck were sixteen rifles, three revolvers, one chronometer, two sextants, a change of clothing for each man, some sails, and remains of the rigging. The crew were forwarded in five bullock waggons to Port Elizabeth, where they at once embarked on board the *Peterel*, 3, screw sloop, lying there. The *Peterel* left Port Elizabeth on the 8th of June for Simon's Bay, and visited the wreck. As she passed the scene of the disaster, it was found lying about one hundred yards from the shore at low tide, and had broken up, the stern having washed ashore. It was not likely that anything more would be recovered. The *Peterel* arrived in Simon's Bay on the 12th of June, and a court was sitting to inquire into the circumstances attending the wreck when the *Briston* left. The accident is generally considered to have arisen from the strong currents, as yet but imperfectly known, that prevail on the coast; and the *Eastern Province Herald* hopes that the Admiralty will now recognise the necessity of proper charts of that coast, with reliable currents and soundings marked on them, being provided, and gives a long list of wrecks occurring near the spot under similar circumstances.

So the Atlantic Cable is again broken, for we find that a telegram dated Valentia, Saturday, 6 p.m., reports that the cable of 1866 was broken suddenly on Saturday afternoon; that the preliminary experiments give the locality at 50 nautical miles from the other side—i.e., from Heart's Content. "This," says the chairman of the Anglo-American Telegraph Company, "would indicate a very moderate depth of water, in which the injury can be repaired with great facility, as in the case of the recent accident on the shore end of the same cable. The 1865 cable is in perfect order." No doubt there must not only be a very moderate depth but a bank of soundings which it would be most important to have explored, and which we have no doubt will not escape the attention of the Admiralty.

MERCHANT SEAMEN'S ACT.

THE following important clause appears in the Merchant Shipping Bill, and we trust it will have the effect of preventing such disgraceful disasters occurring as the foundering of the *London* and her companion another iron ship, and that on such occasions of barefaced overloading there will be found some one bold enough to point out the defect of such ships to the Board of Trade :

“ Whenever, in any legal proceeding before any Justice or Justices, between the Master or Owner of any ship on the one hand, and any Seaman or Apprentice belonging to such ship on the other, it is alleged that such ship is, by reason of unseaworthiness, overloading, improper loading, defective equipment, or for any other reason, not in a fit condition to proceed to sea, the Justice or Justices may, and, if required by either party, shall, call upon one of the Surveyors of the Board of Trade to survey such ship, or to answer any question concerning her which the Justice or Justices may think fit to put to him; and if there is no such Surveyor at or near the place, the Justice or Justices shall apply to the Board of Trade, and the Board of Trade shall thereupon direct one of their Surveyors to proceed to the place; and in every such case the Surveyor so called upon or directed shall survey the said ship and shall make his report in writing to the Justice or Justices, and such report shall be communicated to the parties by the clerk to the Justices, and shall be received as evidence in the said proceeding, and shall be accepted as *prima facie* evidence of the facts therein stated; and the Justice or Justices shall determine the question before them in accordance with the opinions expressed in such report, unless it is proved to his or their satisfaction that such opinions are ill-founded; and every such Surveyor shall for the purpose of the said survey have the powers given to Inspectors by the first part of the principal Act, and shall be paid such sum for expenses, if any, as the said Justice or Justices may direct; and such expenses shall be costs in the proceeding, and be paid by such of the parties as the Justice or Justices may direct, and be accounted for by the Surveyor in such manner as the Board of Trade may direct.”

 SAN FRANCISCO.

OUR readers may have observed in the late San Francisco papers, an account of the destruction of Rincon Rock, in San Francisco harbour, by means of powder explosions. The powder is simply laid on the rock in a tin canister, and exploded by means of a wire, thus blowing the rock into atoms. The experiments have been very successful, comparatively inexpensive, and have resulted in removing a dangerous obstruction to navigation. There are several places in our harbour where rocks exist, which can, no doubt, be destroyed by his process. The gentleman who has been engaged in removing Rincon

Rock has offered to visit Honolulu and remove any harbour obstructions there may be here. The experiment is certainly worth a trial. Just off the point of the Esplanade is a troublesome rock, which should be removed, as it prevents large vessels from coming up to the wharf. Another lies at the point where the new steamboat wharf is to be extended to, which may possibly be blown up, and allow the extension of the pier in a straight line five or six hundred feet further on. As our harbour is small, every fathom of space that can be rendered serviceable to shipping is so much gained, and all experiments with that end in view must meet public approbation.
—*Sandwich Island Paper*

The process mentioned in the foregoing extract seems to be peculiar to the American engineers and certainly beneath the attention of ours. A ridiculous attempt was made by us to remove a rock at the entrance of Plymouth Sound, about fifteen years ago by blowing up an old cylinder of powder which produced no effect whatever on it. But the way that we go to work and the way the Americans did at New York, as recorded in these pages now many years ago, are two distinct operations. Commend us to our American friends on occasions where patience and perseverance are required rather than to the off-hand work of our clever engineers.

WE noticed in our last the departure of the *Nonpareil* from New York on her voyage across the Atlantic. She has made a very successful voyage as appears by the following account of her arrival at Southampton. Our South American friends will recognise in her the principle of the Balsa of Arica.

The American life-raft *Nonpareil*, forty-three days from New York, arrived here between five and six o'clock on the evening of the 25th of July, and is moored off the dock shore. This daring adventure has been conducted by Mr. John Mikes, captain, and a crew of two, named George Miller and Jerry Mallene. She is twenty-four feet long and twelve and a half feet broad. The raft, which has two masts, consists of three cylinders, pointed at each end, united together by canvas connections, having no real deck, and is strengthened by boards slipped under strong iron neck-pieces, the whole kept together by lashing. A waterproof cloth, hung over a boom, closed at each end, somewhat resembling a gipsy tent, affords sleeping accommodation, two at a time, and the third keeping watch. This is fixed on a strong locker, in which the provisions are kept. The raft lay-to seven times from stress of weather, and the last vessel spoken was the *John Chapman*, a week since, from which they were given a fowl, which is still alive and well. They have arrived with thirty gallons of water to spare. The captain was poorly two days during the passage, otherwise all have been in perfect health, and the men are in good spirits, their countenances looking healthy and bronzed by the weather. They had no chronometer on board, and sailed by dead

reckoning, and corrected their position by vessels they spoke. There is a smaller raft on deck for use as a boat. The raft has kept perfectly water tight all the way, not a leak of any sort having occurred. She is fitted with an apparatus for filling the tubes with air. On the arrival of the raft, Mr. J. R. Stebbing, the president of the Chamber of Commerce, went on board, congratulated them on the success of their daring enterprise, and tendered them any good offices that might be required. The captain landed on his arrival to report to the United States' Consul, Captain J. Britton.

WHAT an amount of good sense there is in the following lines—

Speak kindly !—'tis a simple thing,
 Yet bears a wondrous power ;
 'Twill shed the bloom of summer time
 O'er every darken'd hour.
 'Twill calm the jarring chords of life,
 By grief or passion stirr'd ;
 Like oil upon the troubled waves,
 Is a kindly spoken word.

And they who fought, but yielding fell,
 Were wreck'd by passion's blindness,
 Though fall'n, may yet be won by love
 And blessed words of kindness.
 Then let no cold self-righteous spirit
 Place love and pity under ban ;
 Con well this lesson's holy teachings,
 " Deal gently with thy fellow-man ! "

Speak kindly !—many a bitter word,
 Is thoughtlessly and rashly spoken,
 And through years of vain regret
 Its galling chains remain unbroken.
 The sweet glimpse of Paradise,
 The truest types of Heaven above,
 Are beaming smiles and kindly deeds,
 And gentle words of love.—*Selected.*

CHARTS, ETC., PUBLISHED BY THE HYDROGRAPHIC OFFICE, ADMIRALTY,
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EDWARD DUNSTERVILLE, *Commander, R.N.*

Hydrographic Office, Admiralty,
22nd July, 1867.

THE
NAUTICAL MAGAZINE

AND

Naval Chronicle.

SEPTEMBER, 1867.

ENGLAND'S MARINE.

LEAVING, for the present, all practical details of the subjects contained in the first article of the *Nautical Magazine for August*; I wish to devote this short paper to a consideration of the relations existing between the owners of ships and their commanders, and between the commanders and their crews.

This is undertaken now for two reasons;—first, because I hope that among the readers of the *Nautical*, there are some commanders who take a sufficient interest in all important questions affecting their profession, and that they will bring their skill, intelligence, and experience to bear upon those subjects, and send the results of those considerations for publication in this periodical magazine of useful information.

Second. Because I have a conviction that the source and origin of the larger part of our enormous list of annual *casualties* and disasters at sea may be traced to the very unsatisfactory character of these relations.

1. The relation between the owner of a vessel and her commander is materially injured by the practice of **INSURANCE IN FULL**. In confirmation of this assertion, it is only necessary to state, that the cases are not few where the owners would be glad to *hear no more*

about their ships after they have left port ! and so long as owners can send their ships to sea at the *risk of others*, just so long will they continue to be indifferent about the abilities and the characters of their commanders, and also careless about the equipment and seaworthiness of their vessels ! For instance, no one acquainted with maritime interests can think that the unfortunate *London* would have left port in the condition she was in, to founder in the Bay of Biscay, had she been at the owner's risk, and under the *uncontrolled* command of the captain. The strange fact is, that it is not the *owner* who is so much concerned about the character of the commander of the vessel, as the *underwriter* is,—a party who knows as little about the ship or her commander as the Llama of Thibet does, and with about as much control in her equipment.

If this contrast between owners and underwriters were simply a speculation, no one would have a right to interfere ; but as it is a question affecting the lives of seamen and passengers, as it is also a question of national importance, as well as one seriously affecting our interests and reputation as a great maritime people, it demands consideration. The best remedy appears to be *PARTIAL INSURANCE*, and anything beyond it to be made *illegal*. No doubt this ought not to be necessary. But as the present time is one in which excessive competition is sure to be destructive alike of both honesty and humanity, some interference of the government is absolutely necessary.

2. England will never attain to *true* maritime greatness until those who command her ships act upon the principle that they have a *DUTY* to perform towards those who sail under their charge, *equal in importance* to what they owe to their employers and superiors. This remark applies as much to the Royal Navy, as it does to the merchant service.

There never was a time, in this country, when the relations between capital and labour were in so unsatisfactory a condition as at present. The want of harmony between these two main elements of national prosperity is deeply felt among the nautical classes. Had there been for them the same facilities of combination as there are among landmen, we should before now have had a general strike of seamen, not so much, perhaps, for better wages, as (in the first place) for better *forecastle accommodation*. Who, when going over a ship, has not been struck in passing from the gilded saloon to the dingy stifling fore-castle, with, what may be called, the *inhuman contrast* between them ; and has not ceased to wonder that discontent and disaster should have become chronic in our merchant service. Wherever a flag flies over a vessel so *unequally* freighted, with splendour in her after part, and

squalor in her fore part, though it be that flag of which the proud boast is made, that it has "braved a thousand years the battle and the breeze," in every such vessel, when the hour of peril comes, there will be found wanting the essentials of good discipline and of safety.

The "Sailors' Home" has become an institution of our land, and one greatly to be commended. But it is a question whether such institutions are rightly named; for what is a *sailors' home* after all but a short temporary refuge for a seaman from land sharks and other two legged creatures of prey, in which *home* he passes not more than perhaps one year out of every ten on an average, and all the rest of his life he passes on board ship, which ship *really* is his *home*, and where he should be so treated as to be made to feel that really as the old sea song says,—“His HOME is on the Deep.”

W. C. P.

NETHERLANDS.

*Report by Mr. Thurlow, Second Secretary at the Hague, on the
“Waterstaat” of the Netherlands.*

The Hague, April 10th, 1867.

The actual kingdom of the Netherlands is composed of the following eleven Provinces:—

- | | |
|----------------|------------------|
| * Friesland, | * North Holland, |
| * Groningen, | * South Holland, |
| Drenthe, | * Zeeland, |
| * Overysse, | North Brabant, |
| * Guelderland, | Limburg |
| * Utrecht. | |

Of the eleven Provinces above mentioned, the eight marked with an asterisk abut more or less upon the “outer waters” of the German Ocean, and combine in their conditions of existence the double danger of submersion from the “inner” and the “outer” water—i. e., from the drainage of the higher lands of Central Europe and from the inroads of the open sea; of which two evils the former is most dreaded, being strangely, as it will be later shown, more entirely beyond the power of man to keep within control.

Constructionist and Destructionist Schools.—The physical formation of the Netherlands, as a subject of much interest to the Dutch themselves, has received a large share of the attention of their learned and scientific men. Two schools have thus been founded; one of which maintains that the Netherlands have been abandoned by the

sea to man by the very gradual upheaving of the land, and the deposit among the sandbanks, as they emerge from their watery cradles of slime and soil, borne down through the lapse of countless ages by the Rhine, the Meuse, and the Sheldt. The second school, whose tenets appear to be less upheld by science, pretend that the elements have, through many centuries, been endeavouring to regain possession of the Netherlands; that the sandy soil has been constantly washed and blown away, and buried in the depths of the German Ocean; and that the bare existence of the Netherlands of to-day is only due to the mastery of mankind over matter.

Both these doctrines, diametrically opposed to one another as they are, may, however, be applied to certain portions of the country under discussion; for no less surely do the hands of man, by building dykes, exclude the stormy waters of the Zuyder Zee from overriding the rich pastures of Friesland, Groningen, and Utrecht, than do the "dunes" or downs of sand, thrown up by the sea along the coast-line of North and South Holland, keep at bay the tempest-tossed waves of the German Ocean, as they lash in vain fury a breakwater of their own formation.

The two schools above referred to are known as "Constructionists" and "Destructionists." Both adduce arguments and examples in support of their respective theories. They first point with pride to what has been termed the Archipelago of Zeeland, or "See-land"—"a region outcast of ocean and earth," which "the slow process of nature," backed by "the untiring industry of man," has transformed from floating quicksands into rich alluvial grain, fruit, and flower-bearing plains. These islands are quite unknown to the ancients; and this fact, when taken by the side of the careful geographical descriptions handed down to us by Pliny and Tacitus, tends to prove that, if existing in their time, they must at least have been uninhabited. The earliest authentic records of them describe "the spongy land as rendered almost uninhabitable by the frequent overflow of numerous rivers when forced back upon their currents by the stormy sea. Here, within a half-submerged territory, a race of wretched ichthyophagi dwelt upon 'terpen,' or mounds, which they have raised like beavers above the almost fluid soil;" and "here it was that, at a later day, the same race chained the tyrant ocean and his mighty streams into subserviency, forcing them to fertilize, to render commodious, and to cover with a beneficent network of veins and arteries, a country disinherited by nature of its rights." This province has adopted, as its national crest, a lion rising out of the sea, with the appropriate motto, "Luctor et emergo."

The destructionists, on the other hand, derive a gloomy satisfaction from the contemplation of the ravages of the relentless penetrating ocean. The season of the spring-tides is naturally the one that a sad experience has taught the coast inhabitants of the Netherlands to watch with annual anxiety; and if, as often happens, the spring-tides have been preceded by a long continuance of south and north-westerly winds, their anxiety is not unfrequently succeeded by despair.

Dangers from the "outer waters."—South-westerly gales, acting on the surface of the Atlantic, drive an accumulation of waters round the north of Scotland into the German Ocean, where, encountering northerly winds, the sea is propelled with great violence through the British Channel, in search of its original level in the Atlantic.

The straits of Dover being, however, too narrow to carry off the waters as rapidly as they accumulate, they fall back, and pile themselves up against the coast of Holland. Then the weight of the "broad ocean leans against the land," and the preservation or submersion of the latter is at such times entirely dependent on the solidity and powers of resistance of the sea-walls or dykes.

On these and similar occasions the alarm-bell sounds in every fishing village and coast hamlet, and every human being, capable of bearing aid in strengthening and heightening the dykes by the application of hurdles, sails, and whatever is most ready to hand, is forcibly impressed into what is literally the service of the State.

This race in the erection of an embankment against the rising tide is frequently continued through many midnight hours, along a length of many leagues of quaking dykes, by men, women, and children; and relief to their anxiety and labours only dates from the happy moment when the ocean tide begins to ebb again, and they acquire an undisturbed repose of some few hours to gird themselves for a renewal of their struggle with the elements.

Inundations from the Sea.—It is in the above combination of wind and tide that past disastrous inundations from the sea have had their origin; and it is to them that has been due successively the submersion of fertile provinces, now represented on the map by the stormy waters of the Dollart and the Zuyder Zee.

The history of the submersion of the former has been accurately preserved. It was in the spring of the year 1277 that the piled-up waters of the German Ocean broke their barriers to the north of the Province of Groningen, and converted the smiling, fertile delta of the River Ems into a watery waste, which the Dutch have christened "the Furious," or Dollart.

Similar catastrophes, on a greater or a smaller scale, all well authenticated, occurred in the years A.D. 533, 792, 806, 839, 1164, 1170, 1205, 1210, 1221, 1230, 1237, 1248, 1249, 1250, 1257, 1277, 1282, 1287, 1300, 1336, 1400, 1421, 1429, 1500, 1507, 1516, 1524 (in which year three inundations occurred), 1530, 1532, 1659, 1570, 1584 (on November 1 of this year some of the highest ground in Friesland was submerged, and over 100,000 persons lost their lives), 1591, 1647, and 1687. In this year the Spanish Governor Robles introduced an improved method of dyke construction; yet notwithstanding the erection of more efficient barriers against an ever-watchful and invulnerable enemy, fearful inundations of the sea are recorded for the years 1591, 1610, 1647, 1649, 1675, 1687, 1717, 1776, and 1825.

To the inroads of the sea, above recorded in the twelfth and thirteenth centuries, was due to the gradual formation of the Zuyder

Zee ; a destructive work of vast magnitude, conducted by the hand of nature with most relentless energy and precision. No terrestrial convulsion came to the aid of the "outer waters" in the execution of their design ; it was accomplished in the course of a century and a half, in a laborious, patient kind of way, and Texel, Vlieland, Ter Schelling, Ameland and Schiermonnik, isolated continuations of the "dunes," or "narrow rope of sand," which constitutes the sole natural defence of Holland against the ocean, are all that now remain to mark the actual limits of these vast submersions.

Such are the dangers by which the existence of the Netherlands is daily threatened from irruptions of the "outer waters ;" or the sea. It is but necessary that a tide should rise one inch higher than is provided for by some sea wall, a circumstance dependant upon the ungovernable forces of the winds, and fertile provinces descend forthwith into the watery depths of the German Ocean, whence it is pretended that they originally sprang. Yet, great as are the dangers thus menacing Holland from the outer waters, or the sea, still more formidable are those to which she is exposed from abnormal incidents and conditions of the "inner waters" of the Rhine, the Meuse, the Scheldt, the Wasl, the Leck, the Yssel, and their affluents and tributaries, which seam the Kingdom of the Netherlands, and parcel it out in an archipelago of islands.

Dangers of the "inner waters."—The breaking up of the winter is the period of the year when danger is most to be apprehended from the "inner waters ;" and the Rhine, "the father of all German rivers," is then the origin and source of evil. The great danger to be dreaded is the breaking up of the ice on the upper and swift waters of the Rhine and Meuse, before a thaw has opened up a free passage for the ice-blocks to the sea ; and this danger is augmented when much snow has fallen, and suddenly melting, has soaked and soddened the artificial banks by which the Rhine and other rivers are held within their bounds in periods of flood. This combination, which occurs to a greater or a less extent almost every year, may at any moment of the winter season deluge and destroy some of the richest provinces of the Netherlands. The last great catastrophe of the kind occurred in 1861, when the ice from the "upper waters," unable to force a passage through the still solidly frozen "lower waters," completely filled the river bed, and rising high above the artificial banks, compelled the accumulating waters to break their bounds, and spread themselves over many hundreds of square miles, dealing death and destruction among villages, flocks, and herds, and provender.

To understand, however aright, the great dangers to which this "low land," "nether land," "hollow land," or Holland, is exposed from irruptions of its "inner waters," it is necessary to realize the fact that the Rhine, the Meuse, etc., like the Mississippi, the Ganges, and all other great natural drainage systems of the world, deposit much soil, earth, and sand (only partially held in solution), along the river bed ; that this process of silting up has been going on without intermission for countless ages ; that it has been combated by the Dutch by the

gradual construction of artificial banks, and that the actual results with which the Netherlanders of to-day are brought face to face, is, that the great waters of the lower Rhine are borne above the level of the country through which they flow, and which in many places lies many feet below the bed of a river twenty feet in depth. Under these circumstances it does not require a prophet to foretell some grand disaster from the "inner waters" at perhaps no very distant day, when some unusual and unforeseen conditions of the thermometer and barometer will throw a greater strain upon the artificial river banks than they are capable of supporting, and when we shall have in Holland a redistribution of land and water, and a probable return to a more natural topography than that offered by the Netherlands of to-day. It is now very generally held in Holland that, in building up the banks of rivers in proportion as their beds have silted up, the Dutch have committed a fatal blunder, for which they will inevitably pay dearly at some future time; and it is argued that the frequent overflowings of the great rivers of the delta of the Netherlands were designed by nature to fertilize the soil. To escape however from inundations, which are not hailed with the delight of the Egyptians as absolutely necessary to the growth of grain, and to rid themselves of the practical inconvenience in a densely-peopled country of having, at uncertain periods, great rivers wandering about among their towns and villages in search of new outlets to the sea, the presumptuous Dutch have built up bulwarks to defeat the aims of Nature, and time alone can test the wisdom of the experiment.

Origin of the Waterstaat.—Still, whether right or wrong in the course it has adopted to defend itself against these watery dangers from within and from without, it is hardly strange that as this country advanced in science and the arts of civilization it should have concentrated much energy and thought upon the means of best supplying, by the hand of art, the security which the hand of nature had denied; and it is the result of three centuries of such an expenditure of energy and thought that it is now intended to record in a short account of the administration known as the "Waterstaat," to whose supervision the construction and maintenance of all hydrographical undertakings in the Kingdom of the Netherlands are by law and ordinance entrusted.

Powers vested in it.—The powers vested by the State in the senior officers of the Waterstaat are in full proportion to the national importance of their office, and to the variety and extent of the work involved in watching and controlling "the state of the waters." At the command of an employé of this administration any subject of the Netherlands can be summoned from his bed and compelled, under heavy pains and penalties, to labour in the public service. From this primary obligation to the State not even the uniform of the King's Guards can exempt a Dutchman; individual soldiers and whole regiments are as much bound to obey the signal of alarm as the poorest operative.

In times of danger, the proprietors, whose landed and household interests are at stake, are not permitted to exhaust their energies and

resources in the construction or fortifying of barriers to resist the growing waters within the narrow limits of their own fields and villages; on such occasions a law obtains, more respected by a Dutchman and more absolute than any martial law that ever was proclaimed. The whole population, and, if necessary, drafts from the neighbouring provinces, are called together by the booming of cannon and the tolling of bells to resist the threatened watery invasion at the most strategic points, and, so long as danger lasts, "force majeure" reigns supreme, and the personal service of the King, the conduct of legislation, artillery practice, and the passing bell are hushed, and held in due subservience to the mandates of the Waterstaat.

Training of its Officials.—To educate engineers for the performance of the duties of this administration a special college has recently been founded at the historical little town of Delft, in the province of South Holland; a nearly central point as regards the more important hydrographical public works in the Kingdom of the Netherlands. On every suitable opportunity the theories there taught are tested and explained to the students by practical illustrations; and the receipt, by the Governor of the Institution, of a telegram from some threatened point, is frequently a signal to the members of the College to put away their books, and betake themselves without delay to witness the rising and resisting of the waters of the Rhine or Zuyder Zee.

Cost of the Waterstaat.—Such are the general duties, and such is the education, of an administration which, according to competent authorities, has, in the last 200 years, had the spending of over 3,600,000,000 florins (300,000,000*l.*), within the narrow tract of country lying between the Dollart and the Scheldt. This sum may be regarded as the price at which Holland has been purchased from the waters; but, great as it is, the interest on this money sunk does not fully represent the rent that Dutchmen pay for the uncertain tenure of their land, and the Kingdom of the Netherlands can only be compared to a copyhold property, with Neptune for Lord of the Manor, to whom annual fines are paid amounting to over 1,000,000*l.* sterling, in the shape of repairs and superintendence.

Calculated as these figures are to inspire respect for a little country, with an area of but 12,623 square miles, hardly as large as Wales and Yorkshire put together, to which this money stands in the light of a national debt, amounting to little short of half of that with which the revenues of Great Britain and Ireland are chargeable, we must examine in more detail the stupendous public works on which this money has been spent, in order to form a due appreciation of the untiring energy and industry necessary for the preservation of the land described in Hudibras, as—

"A country that draws fifty feet of water,
In which men live as in the hold of Nature;
And when the sea does in upon them break,
And drowns a province, does but spring a leak."

The works may be divided into two great categories, as destined for the construction of new land, or the preservation of the old, and as

noble specimens of each class we will cite the draining of the lake of Haarlem, and the dykes of West Capelle, to which the island of Walcheren owes its existence as dry land.

Lake of Haarlem and Dykes of West Capelle.—The first of these works was accomplished in 1852, after thirteen years of toil and anxiety, at a cost of 11,000,000 of florins (916,666*l.*), a sum which, large as it is, has nevertheless been completely recovered both in capital and interest, by the sale of 42,481 acres of valuable land; while the second presents to view a sea wall 40 feet in height, with a foundation 150 feet in width with a slope towards the German Ocean of but 1 in 13, faced with granite brought from Norway, thatched with turf, and surmounted by a carriage road lined with fine trees. Of this dyke it has been said, that had it been originally made of solid copper, the first cost would have been less than the sums successively expended in building and repairs.

Three hundred miles of dykes on the above pattern, but varying in solidity and cost according to the accidents of their position as destined to resist the heavy seas of the German Ocean, or the steady pressure of a rising river tide, protect the islands of the Province of Zealand from the irruptions of the outer and the inner waters: while no less than 85 per cent. of the superficial area of the eight provinces marked with an asterisk on page 473, lie below the level of the sea, and have been reclaimed at different times by private or public enterprise, after the manner of the great instance quoted of the Lake of Haarlem.

Boezemlanden.—The remaining margin of 15 per cent. of the natural land, the Dutch term “*boezemlanden*,” or lands from which the water runs off without artificial aid. These are principally sandy wastes or rabbit warrens, and represent well nigh the only portion of the Netherlands that Nature appears to have designed as habitable for man.

Having thus briefly shown the important part that water plays in the physical economy of Holland, covering as it would, if unchecked, eight and a half-tenths of eight of her provinces, we shall proceed to a more detailed account of the uses to which this water is put in times of peace and war by the skilful hands of the patient race by whom this country has been constructed.

This inquiry, so far as regards pacific purposes, may be dealt with under two heads, Agriculture and Navigation, and both of them become subservient in times of war to the necessity of the State, which in the exercise of its “*eminent domain* takes to the water like a duck,” and finds its natural refuge in resort to inundation.

To appreciate the beauty of the Dutch science of hydrodynamics, it is necessary to understand that from the first to last it is a question of comparative levels. The error of a centimètre in level might drown a province, or frustrate the purpose for which some canal had been designed.

Amsterdamsche Peil.—Thus it may be said, without exaggeration, that the most important institution in the Kingdom of the Netherlands

is a certain antiquated pile at Amsterdam, but one of many millions of pine-trees brought from Norway on which the city is perched, which indicates the rise and fall of the outer waters of the Zuyder Zee and German Ocean

For 200 years this pile has been watched with anxiety by the burghers of the Netherlands, and a graduated scale has been marked upon it, in which the mean water level is represented by zero. It is known as the "Amsterdamsche Peil," and every hydraulic undertaking in the country is measured by its standard, as having a level of so many mètres or centimètres above or below the usual level of the sea. The initials A. P. (Amsterdamsche Peil), O. A. (Zero of Amsterdam), or Z. P. (Zero of Peil) are the forms of abbreviations most generally used to represent the starting point in all hydraulic calculations; and one of these with the signs + and — must therefore necessarily occur in every intelligible description of Dutch public works. In the course of this Report, the last one, Z. P., will consequently be used without further explanation.

Polder and Boezem.—Before proceeding further it is necessary to explain the meaning of two technical Dutch words, which are best retained in a descriptive task of this kind, as difficult, if not impossible, of translation. The first is "polder," which signifies a drained lake or tract of low-lying ground, only kept free from water by dykes and periodical pumping out; the second is "boezem," or the basin into which are pumped the waters from the polders belonging to any one of the hydraulic administrations among which the Netherlands are parcelled out.

Thus, in point of fact, the Haarlemer Meer is but a polder, and it is indeed so called on every Dutch map; while the river IJ, an estuary of the Zuyder Zee, on which Amsterdam is situated, is the great boezem into which it is pumped.

When the boezem is natural, and a marked feature in the topography of the country, like the river Amstel, the old Rhine, or the Vecht, it often gives its name to the hydraulic administration of which it is the heart; in other cases, when the boezem is artificial or less marked, the administration takes its name from some central town, as Delft or Neerden. Thus we have Amstellands Boezem, Rijulands Boezem, Delflands Boezem, etc.

Many of the Artificial boezem, and indeed many of the lower-lying polders, have been formed in early times by excavations of turf, of which fuel many millions of tons are still annually consumed; and to such a point has this mine of wealth been worked in some provinces—for instance, in Groningen and Drenthe—as to have entirely changed the face of the country, producing most abnormal topographical conditions, which will call for observation at a later period in this Report.

The value of a polder for agricultural purposes is dependent on its situation with reference to the boezem of the system to which it belongs. Different terms are used to distinguish those polders that abut on the boezem itself, from those lying, so to speak, further inland. Then there are also what are termed "administrative polders," of per-

haps a lower level, and nearer to the boezem than others, and into which these others may be drained without resort to artificial means.

The machine in most general use in the Netherlands for agricultural draining purposes is the Archimedes screw pump, and the motive power is almost invariably the windmill, which is in much favour with the Dutch husbandman, as applicable to his three primary requirements of draining, the conversion of his own corn into flour, and the sawing of the timber needed for the construction of his dwellings and farm buildings.

The most constant winds that blow over the flat surface of the Netherlands are thus utilized, and become of immense importance to the country as a grain-bearing land. Without them it would be a superhuman labour to keep the polders free of water; and the only circumstance that tends to check their utility is the fact before alluded to, that a continuance of certain winds, piling up the outer waters into which the boezems discharge, renders it necessary to shut the sluices to keep out the ocean knocking at their doors. When this occurs, during the rainy months or the melting of the snows, all agricultural pursuits in the locality affected are brought to a standstill. The water rises daily in the polders, and they assume the aspect of inland seas; while the boezem, full to the brim, and incapable of discharging into the sea, will not stand the introduction of more water without overflow.

The orders of the Waterstaat are then rigorously enforced; the windmills cease pumping, and the peasant knows that he cannot sow or plough his fields until a change of the high wind, which, if it only came from another quarter would be so favourable, allows the outer waters to retire, and permits the re-opening of the sluices towards the sea.

(To be completed in our next.)

A FOREIGNER'S ACCOUNT OF US—*The Docks of London.*

(Concluded from page 443.)

At a short distance from the West India Docks and at the same Blackwall which forms the maritime quarter of London are situated the East India Docks, constructed in 1804 and 1805, in the reign of George the Third. These are entered through a massive stone archway, supported by large columns and bearing an historic inscription. A black board shews the names of the vessels recently arrived, and also the part of the quay where they are to be found. It should be observed that these docks are like towns, and that a ship in them is as difficult to be found as a merchant would be in London. The line of quays is evident enough by the basin of ships and their masts, and by the sheds destined for the merchandize. These are covered in with tiles and have windows, and the cases are admirably arranged in them, leaving a clear passage for the workmen. Behind these there is another range of storehouses, strongly built of brick with iron doors.

These buildings were destroyed by fire some years ago, when eight thousand bales of hemp were consumed. The effects of the fire may be traced along the ground, the surface of which is strewn with ruins. Since 1838 the East India Docks have belonged to the same Company as the West India. The names import and export are painted in black letters and distinguish the two grand divisions of these depots; and certainly a comparison of the goods they contain is rather interesting. Those assigned to imports contain generally the raw material—such as buffalo horns, indigo, silk, spices, etc.; the export display, on the contrary, the results of labour—such as spades, ploughshares, furniture for houses, etc. In fact, against the produce of nature, is collected the works of art, fashioned by the hand for the benefit of the human family and the tillage of the ground. A walk through the docks gives an excellent lesson in political economy, and the history of the races is well represented by the condition of their productions. But how to keep one's attention fixed in the midst of the perpetual whirl to and fro of trucks laden with merchandize, running almost between one's legs, is the great difficulty. Every one works here, that is, every one of a living form. Even the cranes which are fixed over the jetties, stretching out their long necks with sacks of biscuits, which they are depositing on board ships fitting for sea. From time to time, workmen are passing and repassing the planks which are afforded by the gates, which serve to keep the water in the basin containing the ships, and they answer the double purpose of sluices and swinging bridges. Across the gates one enters a new district of streets behind streets, where may be seen persons gravely entering in books the accounts of the merchandize which passes and repasses. However, the hour of one is struck by the Dock clock, on which all manual labour is suspended, and groups of workmen are seen on their way to the great entrance going home to dinner. We will take advantage of their absence and pay a visit to the ships which they have left.

The basins of the East India Docks being intended for the largest ships have never less than twenty-three feet of water in them, and in these are seen ships of every form and every country. The English are great admirers of these floating monsters, many of them built by themselves, and living, as it were, much among them, accounts for the enthusiasm with which they look on naval architecture. Their huge masts at rest, the fine nature of their cordage, the enormous cables coiled by themselves like serpents in their nests, the long hulls of certain steamers, either of iron or wood coppered all alike, suggest the sea. What pride do these vessels evince in their imposing form, having found out the secret of making swift and rapid passages. And with what propriety do their constructors communicate to these monsters the distinguishing traits of those creatures which make their way on the surface of the ocean. As to the interiors of these vessels, some of them are really palaces afloat, their saloons of rosewood or citron, a magnificent silver service, and every Asiatic delicacy. But what is no less amusing is the nomenclature of these ships as well as the specimens of sculpture they carry about their bows.

Among the English the ship is a person, generally a female; her name is not only a means of identifying her, but in certain cases a reasonable being, the destination of which belongs also to the crew. Many among them have received the name of the regions to which they go. For instance, the *Indus* with the figure of a river, the *Mari* decorated with the figure of one of the aborigines of New Zealand, with a spear in his hand and a red mantle over his shoulder, the *Delhi* which is bound to Bombay, and which carries a black female at her bows. The English sailor is no stranger to ancient history, he likes a touch of the classics if one might judge by the name *Ulysses*, for so is a vessel called, with a figure-head wearing a helmet painted blue, bearing on the breast a shield with a red scarf on, the shoulder and one arm raised in a threatening position against an enemy. Again, the *Centurion* is a heavy vessel which has a complete Roman figure armed from head to foot. But what Jack prefers to history is something marvellous and allegorical. He particularly likes the figure of *Jason* with the golden fleece, with a lance in his hand and a dragon under his feet. Sometimes he is undecided between fable and mythology. The bows of the *Calcutta* has angels with a Centaur holding the head of *Medusa*. The favourite emblems of navigation appear in the order of Nymphs and Naiades. What lovely Sirens with their bare breasts. There is the *Water Nymph*, a damsel with a wreath of water lilies and a blue scarf over her shoulders and a golden wand in her hand. A notice informs us that this vessel will soon quit the docks for New Zealand. The *Conflict* with a figure head bidding defiance, with a buckler on one arm and a trident in the other hand. Again, the literature of the day supplies subjects for nautical sculpture. The same with the heroes and heroines of Walter Scott, Byron, and Shelley, and political men like Bright, also celebrated singers and dancers, and angels of charity like Florence Nightingale have often the honour of conducting across the seas vessels of which they form the principal ornament.

But the seaman will also follow the dictates of his own heart in his choice of a figure head. He will have his vessel named after the lady of his choice. Certainly, we all have our own ideas of beauty, and Jack's is generally a bouncing, jolly damsel, with regular features and a fresh coloured skin, for what the seaman, who is generally well bronzed, likes particularly with females is a bright rosy face. As the artists in these productions generally are very scrupulous in their ideas the ladies become old fashioned, and not always according to the taste of the present generation. Whilst I was contemplating one of these figure heads dressed in the old style, a young sailor, who was passing by, observed, "what a pretty lass, she only wants a little of the crinoline." Most of these figure heads, however, contrive to lose their arms in their contests with the elements. The seamen frequently have a superstitious confidence in the lady figure head, always represented in an unarmed condition; but what are the crew for but to defend them at all hazards. Bad luck will he have who insults them. And if he cannot take his beauty to sea with him in real flesh and

blood, at any rate, he can take her effigy in wood at the prow of his ship.

It is by no means necessary to go far from London to find the great places of nautical industry. Since 1805 the London Docks have been open between Shadwell and Wapping for ships laden with wine, brandy, tobacco, and rice. Land is far more expensive in the town than in the country, and the London Docks are distinguished for what the English call compactness. Here vessels are crowded together in basins, where the water is nearly stagnant. The storehouses rise like fortresses on the quays and are gorged with merchandize. What a mass of exotic produce. One must not be here surprised to see articles of first importance in trade removed by shovels, such as sugar and coffee, but who is familiar with commerce, and is not surprised on meeting with a large accumulation of certain drugs? Who is ever to consume the amount of 1800 barrels of olives? Nutmegs enough to frighten one; and cinnamon, some 8000 bundles imported in a year, is pretty well: in fact, the visitor here may wander amidst riches of which it is hard to tell the real value. A range of bottles, conspicuous from their ugliness, represent a fortune. They contain quicksilver, and one knows pretty well, that is an expensive article. But the great advantage in a commercial point of view of these docks, is, that as they are under the surveillance of the Custom House. The merchant is not obliged, as formerly, to pay the duties at the time of their entering the port. They are themselves a guarantee for their own expenses as long as they remain in the docks, and continue within sight of the customs without losing any of their value.

The labour of the docks is very much done by means of mechanism. Hydraulic lifts raise and lower goods at pleasure, even bringing them to the window appointed for their reception or discharge. These moveable ladders are summoned, and immediately appear. Among these enormous warehouses are those for the reception of tobacco, covering an area of nearly five acres. They are high four storied buildings of brick, connected with each other along the quay with casks before them, openings being occasionally left in them leading to what are called the cellars.

As I had an entrance not only to the cellars, but also to entitle me to taste the wines, I stopped at the opening No. 5, according to the card which I had. One of the attendants lighted two lamps, presenting one of them to me, attached to a long wooden handle, and proceeded to guide my steps. The cellar to which I had come contains 20,000 casks of wine, and this is by no means the largest, I found, on visiting the same day the East Crescent Vaults. Who then could thank his stars there was no wine in England? But I must say, that the wines which the English prefer do not come from France. The English do not appreciate French wines; they think them weak and sour. For my part, I think their taste is bad, and I think I can prove it. Numerous historical monuments attest that the produce of our vineyards was formerly much more common across the Strait, and that in those days they were the principal on the tables of the rich men. So it was

up to the year 1698, when William the Third who certainly had more than one reason for disliking France, determined then to be revenged on her commerce, and one of her principal articles. He accordingly levied a special duty on her wines, and thereby closed this country against them, and the English had to look to another source for wines. In fact, for red wine they gave the preference to that of Oporto, not that it was better than French, but because by the treaty of Methuen concluded in 1703 with Portugal it was more favoured. Since that time it is true, the tariff of the English custom house has been equalized in 1831, and successively reduced on all the foreign wines: but the change came too late; the die was cast, and the British palate was suited to another kind, which was not French. Whether the fault lay with Louis the fourteenth, or William, is a question, but the last commercial treaty will require a long time to contend against a taste established by two centuries. The regime at their tables is not favourable to French wines, they do not drink till they have dined, and then require strong wine instead of spirits.

My guide conducted me to two particular wines, Port and Sherry (Xeres), which each of their kind certainly were excellent. The first came from the banks of the Douro, about fifty miles from the town where it received its name for the voyage as far away as the New World. Red and prime in colour is really the genuine Portuguese wine. The other (Sherry) is made in the vicinity of Cadiz, between the Guadalquivir and the Guadalate. The country in which this wine is produced is in the form of a triangle, of which Xeres on the frontier occupies one of the angles. It varies from pale to brown, but it is an axiom among the English not to judge by colour. The age, the crust, the name of the vineyard, and the merchant are the veritable tests of the wine. As I returned the glass to the attendant from which I had tasted the wine, a discussion took place between two gentlemen near us. As the subject was particularly interesting and had nothing personal I attended to it. For a long time the wines of Andalusia as well as of the Canaries were always known by the name of *Sack*. The word is found preserved by the poets of Elizabeth's reign, particularly Shakspere. Walter Scott himself uses the term more than once in his novels to indicate Sherry. On the origin of this term, the English will dispute with all the Science of Etymology. One party will agree that it is derived from the French word *Sec*, which seems to designate the wine faded with age from its original colour. The other will maintain that it comes from the Spanish word *Saca*, and refers to the skin of the animal in which it is enclosed originally. To this last explanation, however, there is one difficulty, which is that the skin in which the Spaniards preserve their white wine is not called *Saca*, but *odre*. The two Englishmen being unable to agree on the subject appealed to my arbitration in my quality of a foreigner no doubt. But they were very unfortunate, for such a post of honour had never fallen to my qualifications, and of course I declined my interference. But it appears to me the word is neither Spanish nor French, but simply English. The old merchants of Great Britain were no doubt struck by