



159
The Library of the
College of Civil Engineers
Coopers Hill -

AS004653

THE OVERLAND ROUTE

FROM

ENGLAND TO CALCUTTA.

AS CONDUCTED IN 1845.



AS-004653

3 (59) SL

ENGLAND TO CALCUTTA,
BY THE OVERLAND ROUTE,
IN

1845



FROM A MANUSCRIPT LEFT BY

FREDERICK WALTER SIMMS,

F.R.A.S., F.G.S., M.INS.C.E.,

Late Consulting Engineer to the Government of India,

AUTHOR OF "PRACTICAL TUNNELLING," &c., &c.

EDITED BY HIS SON.

LONDON:

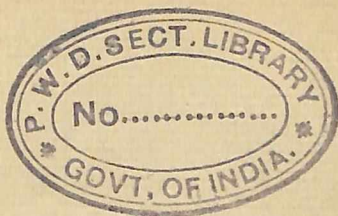
HARRISON AND SONS, 59, PALL MALL, S.W.,

By Appointment to Her Majesty and H.R.H. The Prince of Wales.

1878.



CSL⁹



THIS BOOK, THE GIFT OF THE AUTHOR

TO HIS SON,

FREDERICK SIMMS,

AND HIS WIFE,

CAROLINE FRANCES,

IS DEDICATED TO

The Memory of Caroline,

WIFE OF FRED. WALTER SIMMS, ITS AUTHOR

WHO DIED AT CALCUTTA IN

APRIL, 1846.



EDITOR'S PREFACE.

THE manuscript from which this work is derived, presented to us by my father in the month of April, 1863, had lain long unnoticed, and almost forgotten, along with other ornamental and useful drawing-room books, until the chance visit of a neighbour, and a reference equally accidental to Indian affairs, caused it to be produced and referred to. My friend borrowed the book, and in time returned it with genuine expressions of the satisfaction its perusal had afforded him, and thereby caused me to examine and re-read it more carefully than before, and, after some consideration and consultation, to prepare it for publication. I am encouraged in this course not only by the fact that the Overland Route to India is in no sense of the word an Overland Route any longer, but because that intermediate stage on the path of progress, the railway journey, has become a thing of the past, and will, like the canal and omnibus portion of the voyage, soon be outside memory, and live in history only.

That this little work can add to Mr. Simms'



CSL

EDITOR'S PREFACE.

reputation as a scientific writer cannot be, for it is wholly without scientific pretension, and was, moreover, as the preface of its author shows, undertaken as a pastime; but if the public will be indulgent, and accord to the *Overland Route* in 1845, only a tenth part of the support and countenance they have so freely given, both in the past as well as in the present time, to "Practical Tunnelling," "Surveying and Leveling," and my father's other works, I shall consider myself fully justified in this undertaking.

Under any circumstances, let me trust that all errors, both of omission and commission, may be laid to my charge, and that I may be held entirely responsible for the appendix, in which the concluding portion of the late Mr. F. W. Simms' Indian career is for the first time brought forward, and because his plans, though rejected in *his* time, have since been adopted, and their value recognised, not only through the public statements of disinterested people, but also by the Press of India, as recently as last year.

How seldom is it granted to a man, whose middle life has been one of constant struggle against opposition, one, too, who resigned fair prospects at home in the hope of distinction abroad, to be able to complete in his own time the well-known prophecy of the great mythical



EDITOR'S PREFACE.

CSL

here, "hereafter, perchance, it will please us to dwell on these things."

For the notes the editor is also entirely responsible; some of these are the results of a recollection of his own travels over a portion of the ground described in this volume, the sources of others are mentioned as given; whilst recourse has been had to some encyclopædias and other books, too numerous for mention, to "refresh a memory," often much called upon, or to "supply its place."

VICTORIA STREET,
WESTMINSTER,
October, 1877.

F. S.



CSL

AUTHOR'S PREFACE.

THE following pages were not written with a view to publication, neither probably are they worthy of it, especially as the Overland Route to India is now so well known to the public through the multitudes of people who have travelled it, and by public lectures, &c.; however, if this narrative be preserved, it may be useful in after times to show the best route and mode of travelling in 1845; for other ways may be adopted,* as doubtless will be the case in such an enterprising age as the present.

In fact, my object in writing it was to supply the want of agreeable occupation during the winter of 1861, when living almost alone in an isolated residence in Devonshire. My diary, written day by day during the journey, was necessarily very brief, these pages, therefore, are an expansion of the said diary, by the aid of that inestimable blessing, an excellent memory.

January, 1863.

F. W. SIMMS.

* A leading journal thus writes in its summary of the year 1859, "And at this moment the French Government is pushing on with extraordinary zeal the suspicious project of the impracticable Suez Canal."



CSL

CONTENTS.

CHAPTER	PAGE
I.—Introductory	15
II.—Southampton to Gibraltar	19
III.—Gibraltar to Malta	34
IV.—Malta to Alexandria	45
V.—Alexandria to Cairo	62
VI.—Cairo	77
VII.—The Desert	90
VIII.—Suez to Aden	97
IX.—Aden to Ceylon	111
X.—Ceylon to Madras	121
XI.—Madras to Calcutta	138



CSL

JOURNEY

FROM

ENGLAND TO CALCUTTA

IN 1845.

CHAPTER I.

INTRODUCTORY.

ON Saturday morning, the 17th of May, 1845, I received a letter, dated the previous day, from my old friend, Major-General, afterwards Sir Charles, Pasley, desiring to see me at the Board of Trade, Whitehall. I called upon him the same morning, when he asked me if I should like to go to India, and if so, he would recommend me for the appointment* about to be created by the Honourable the Court of Directors of the East India Company.

He informed me that the Court had been much pressed by projectors of railway companies, for concessions and privileges to enable them to carry into effect their several schemes for that country. These they were willing to grant under proper restrictions, and under the control of the Government of

* That of Consulting Engineer to the Government of India.



CSL

ENGLAND TO CALCUTTA.

India, and therefore they thought it desirable first, to send an experienced railway engineer to examine the country as to its capabilities for the purpose, and to advise the Government upon the matter, lest by granting hastily the powers and privileges necessary for the purpose to competing parties, the unseemly railway struggles of England might be renewed, to the detriment and probable retardation of the introduction of railways into that distant country.*

He also stated that negotiations had been opened with a well-known engineer, but had gone off, and the Court of Directors had asked him to recommend an efficient person for the appointment; that he had named me, and had been requested to open the business, and ascertain my views. This communication, coming thus suddenly and unexpectedly, caused me to request a little time for consideration, and it was settled that I

* It had been Mr. Simms' lot, both under the late Mr. Palmer, and also under Mr. (afterwards Sir William) Cubitt (now also dead), to attempt to carry the South Eastern Railway through the northern parts of Kent to Dover, but in this design they were persistently opposed and defeated by the Kentish landowners, who forced the line into its present position, as an offshoot of the Brighton Railway at Redhill. These and many other unseemly and expensive railway squabbles, ended with the terrible panic of 1847; but only to be renewed later on. The history of the Battle of the Gauges must be familiar to every one.



should make up my mind by that evening, when I was to dine with the General at his residence in Norfolk Crescent. At the time appointed, I gave my assent, and received a note of introduction to Mr., afterwards Sir James Cosmo, Melville, the Secretary to the East India Company.

On the Tuesday following, I waited upon Mr. Melville, and by desire of General Pasley took with me copies of my several publications, and also testimonials from Mr., afterwards Sir William, Cubitt, and Mr. Bryan Donkin, upon which a long and satisfactory conversation with that gentleman ensued. On the 3rd of June, Mr. Melville introduced me to the Chairman of the Company, Sir Henry Willock, and two days later, upon a second interview with Sir Henry, he was pleased to say that he had resolved to recommend me to the Court of Directors for the appointment, and that he felt certain that the sanction of Her Majesty's Government would follow; that I should be required to leave England for Calcutta with the mail steam ship of the twentieth of the following month, it being desirable that I should see Lower Bengal whilst flooded during the present rainy season in India.

In due time I received my official appointment, with authority to choose an assistant to accompany me. I selected Mr. John Fraser, who



CSL

ENGLAND TO CALCUTTA.

throughout proved that my choice had fallen upon the right man ; and more than that, for he became my intimate friend and companion during my whole sojourn in that trying climate. On the 19th of July, my wife and I took leave of our relations and friends, having left our only surviving child (a son) under the care of a clergyman at Margate, and we left the Nine Elms Railway Station at 5 P.M., and arrived at Southampton at half-past eight.



CHAPTER II.

SOUTHAMPTON TO GIBRALTAR.

ON the 20th of July, 1845, my wife and I quitted England for India. It was a Sunday morning, and the church going bells were calling people to their various places of worship, a privilege we were deprived of that day; we had arrived at Southampton the evening previously, and, being informed that the ship would leave the dock at eleven o'clock, we went on board the Peninsular and Oriental Company's Ship the "Great Liverpool," commanded by Captain McLeod, an officer of the Royal Navy. He was a tall spare man, about the middle age, and thoroughly a gentleman, and had the reputation of being a very able seaman. We walked from the quay through a great opening in the ship's side, which led to the lower deck, amidst the bustle and apparent confusion incidental to getting on board the passengers, merchandise, baggage, quarters of fresh beef and other provisions for a long voyage; and after wending our way through a half-choked passage, ascended to the upper deck, where our cabin was situated. It was at the



CSL

ENGLAND TO CALCUTTA.

stern of the ship, on the larboard side of the wheel, and the corresponding cabin on the opposite side was that of the Captain; a roof extended from one to the other, so that the steersmen between the two cabins were under shelter whilst guiding the good ship on her course.

The upper deck was in a very different condition from the lower one, and was but little in disorder, considering the ship was taking on board her cargo and passengers. But this arose from her great height, and from the fact that the gangway or entrance by which access could be had to this leviathan of the deep was upon the level of her lower deck, where confusion and noise seemed to reign triumphant. And it was truly surprising how soon after we had got away from the dock, these piles of boxes, trunks, and packages of all sizes and shapes, square and round, rectangular and cylindrical, vanished down a huge square funnel leading to the regions below, and there disappeared at different depths, through openings or mouths in its sides, and comparative order and quiet were restored.

About noon the ship steamed out of dock into the Southampton Water, where she remained till about 3 P.M., awaiting the arrival of the extra mail dispatched at the latest moment from London: which, together with the rest of her pas-



sengers, and others who came to take a last farewell of their friends, were brought alongside by a small attendant steamboat. As soon as all were on board, the small steamer moved off, and the order, "Go on," being given, three hearty cheers burst from the crews of both vessels, in which the passengers joined; this being the usual maritime method of taking a final farewell, the paddles began to revolve, the ship went ahead, and we were fairly off on our voyage to India.

As soon as our excited feelings would permit, we sat down to write a farewell letter to our son, then about eleven years of age. Having done this, and given it in charge to the pilot to post upon his landing, he leaving us at the west end of the Isle of Wight, we had leisure to arrange our cabin before the hour of dinner, usually 3 P.M., but on this day necessarily postponed until five o'clock. Whilst sitting at this meal, we saw through the stern windows the Isle of Wight receding from our view, and before dusk the heights above the Needles had entirely sunk below the horizon. Farewell to England, perhaps an eternal farewell to all that was dear to us, to the sweet pleasures of home, and to the delights of its happy society; such gloomy forebodings mingled with our thoughts; and such in reality this "last long lingering look"



ENGLAND TO CALCUTTA.

CSL

of dear old England proved to my excellent wife; but to myself only a five years' exile.

Now for a brief description of our temporary home, the good ship the "Great Liverpool." The poop on her upper deck had a row of excellent cabins on each side, besides the two occupied by ourselves and the Captain, on either side of the wheel. Our cabin was the best in the ship, having accommodation for four people, and on the ship's recent return voyage it had been the quarters of my good old friend Daniel Wilson, the Bishop of Calcutta, who had returned to spend a year in England for the benefit of his shattered health, and to take a final leave, in this life, of his family and friends, as he intended to die at his post, and he did so. He returned to India at the end of one year, and laboured in his vocation until death removed him from his holy duties on the 2nd of January, 1858, when he died a truly good soldier of Christ!

On the lower deck was a spacious saloon or cuddy, elegantly and conveniently fitted up; cabins were here also arranged along its sides. At the midship end of the cuddy was a sort of bar, where, after about eleven in the forenoon, a steward dispensed to all applicants, without charge, wine or other strong drinks. This practice, which might be convenient to those



“who used, but did not abuse,” was afterwards given up in consequence of the facilities it afforded for “thirsty souls” to get inebriated. There was no real necessity for such a bar on the European side of Egypt, as the meals came at very short intervals, and therewith the necessary fluids in ample quantity to satisfy all such desires. But on the Oriental side of that country an occasional bottle of soda water between meals was needed, more especially by those who for the first time had visited that part of the world, to compensate for the exhausting evaporation from the body continually going on. As respects the supply of wines and spirits, I always considered it would have been fairer if the Peninsular and Oriental Company had charged a less amount of passage money, and then debited each person, as at an hotel, for whatever strong drinks they might have chosen to call for; such a system, besides other advantages, would have removed the injustice of making ladies and other abstemious persons contribute equally for what was consumed.*

* The practice here suggested, has been adopted of late years by the Peninsular and Oriental Company, but long after other companies had tried it, and upon the whole successfully. In the year 1872, the editor of this work, who travelled over a portion of this route, found a very limited choice of wines, and especially of such as are



In the forepart of the ship, between decks, was a line of cabins on each side; and here was the dispensary, and adjoining thereto the cabin of the doctor, a young but intelligent man. Other cabins in this locality were appropriated to the various officers of the ship. And now down lower still was another sort of best cabin, lighted from above, nicely fitted up and having good sleeping accommodation; this was the favourite residence of the young men passengers, of whom we had a good sprinkling, chiefly young officers proceeding to join their regiments at Malta, Corfu, or India, and also several cadets. It was natural for young gentlemen to like to congregate together, where they could joke and amuse themselves without the risk of annoyance to the other passengers; this place was called by the lady passengers "Bachelors' Hall," but by the gentlemen, who perhaps had a shrewder guess as to what transpired in these lower regions, it was called "Crockford's."

Some humour arose out of the names the

suited to warm climates; moreover, those supplied were dear and not of the best quality. In every other respect the accommodation was as excellent as ever, and the ship's officers most agreeable as well as professionally accomplished men. Over-crowding is now mitigated by the wholesome influence of competition.



passengers had given their cabins, one resided at No. 6, Cable Terrace, in allusion to the chain cable in the vicinity of a certain row of cabins,—another lived near the “Cow with the iron tail,” meaning the pump, from which he asserted the supply of milk from our only cow was made sufficient in quantity for the whole ship’s company. And lastly, I will merely name our farm yard, which was situated at the forepart of the lower deck. Here was our only cow, and in her vicinity a strong odour of hay; here also were kept pigs, sheep, and poultry in abundance; we had no bullocks for slaughtering, and after consuming the large supply of fresh beef we took from Southampton, we had to depend for that article of food, and also for fish, and other fresh provisions, upon the places where the ship called for coals, and where occasionally our purser procured a supply of turtle.

So much for the ship, and now for the mode in which we lived and passed our time. The change of watch, at four o’clock in the morning, brought with it “a change in the spirit of the dream,” for little undisturbed sleep could be had by the passengers after that hour, in consequence of the noise occasioned by preparation for cleaning the ship, and matters connected with the comfort of our large company during the forthcoming day; and



after the holystoning of the decks had commenced, farewell to slumber altogether.

At about six o'clock, a cup of tea or coffee, together with a biscuit, was brought to each passenger, a very acceptable refreshment; then bathing (for there were baths on board) and dressing occupied the time until about half-past eight, before which, however, many of the gentlemen and some few of the ladies were seeking an appetite by walking the now clean, although yet damp, deck. Between this time and nine o'clock the agreeable notes of a bugle summoned the travellers to the cuddy to partake of breakfast; this meal consisted of tea and coffee, cold meat, hot chops, curry, bread and butter, jams, marmalade, and a host of good things too numerous to be named or even remembered.

When ample justice had been done to this substantial meal, which was by no means hurried over, many of the company proceeded to the deck, the gentlemen to talk over, not the affairs of the nation, or the world at large, but those of the small nation and the little world of which we had for the time become a part, and of the merits of the recent breakfast in particular. "I say, Lieutenant Trigger, did you taste the pork chops?"—"Yes, and excellent they were, the P. and O. Company know how to educate their pork!"—



“What’s your opinion of the curry, Mr. Piccally?”—“Why it was no go, there was nothing to eat in it, there were only the backs and necks of the fowls left yesterday at dinner; you must wait for curry till you dine with me at Cossipore.” With such kind of talk the early forenoon passed away, that is supposing the passengers had all recovered from the distressing sea sickness; then followed a vigorous set to at backgammon, &c.; but I must acknowledge the ladies generally spent the morning more profitably than the gentlemen, either in reading, for the ship possessed a good library, knitting, or other similar work; the band also played in the forenoon, the performers consisting of the cuddy servants, for whom a collection was made towards the close of the voyage;* and thus our mornings usually passed away.

At noon, a luncheon was placed on the table, consisting of bread, biscuits, butter, cheese, wine, spirits, and beer, when much of these good things were put out of sight, although only three hours had elapsed since breakfast time. At 3 P.M., the bugle, which never gave an uncertain sound, summoned the *famishing* company to dinner; the preceding three hours having been spent in

* I believe the library exists no longer, the band also has become a thing of the past, and the collection has gone with it.



ENGLAND TO CALCUTTA.

CSL

eternal backgammon, or chess with the ladies, to whom the ship's doctor is always expected to be very attentive; or in vigorously walking the deck to get up an appetite, the quarter deck having been facetiously called "Mutton Parade." The dinner was usually first rate, both as to quantity and variety (it is impossible for me to give the bill of fare, there was so much of it), and we had abundance of wine and beer. Champagne was served twice a-week; and after dinner a nice dessert was laid on the table.*

A drowsy interval generally occurred between the termination of dinner and six o'clock, when that refreshing beverage, tea, made its appearance, and seemed to give new life to the party, who afterwards repaired to the deck to listen to the band, which then again played, and a dance was not unfrequently got up to pass the time away. As the evening advanced, the gentlemen for the most part withdrew to the cuddy, where whist

* These most liberal arrangements were a tradition of the mercantile service of the Honourable East India Company, which was removed from the sea in the year 1833 (the China trade alone being reserved them for a time); the good living, however, survived through the ships of the Messrs. Green, &c., &c., which so well supplied their place. A few years ago, the "Earl Balcarres," the "Bombay," and some three or four of the Company's ships, still kept the sea, their strength enabling them to defy both time and weather.



was pretty generally played until the time to put out the lights, eleven o'clock. Some, however, and most of the ladies, remained on deck and spent an hour or two of the fine warm evenings, in singing and story telling. And as it would be cruelty to send such half-starved people to bed supperless, an abundant supply of biscuits and cheese, &c., in short, a repetition of the mid-day luncheon, was laid upon the table for such famishing creatures as could find space to stow any of it away. So ended the day, and very much like it was every day.

But to return to our voyage. We lost sight of England the first evening, and nothing particular occurred for several days, the weather was fine and the sea smooth; on the first night one of the paddle wheels got out of order, and the ship lay to for about two hours, whilst the necessary repairs were being done. It now appeared that ship rolled very much when not progressing, for she was too high out of the water for her breadth, and too narrow for her length. The "Great Liverpool" was originally built, so I was informed, from a design by that scientific quack, Dionysius Lardner; her present owners had caused her to be cased so as to widen her, but I presume it was impossible altogether to remedy the original defect of construction.



CSL

ENGLAND TO CALCUTTA.

On the evening of the 21st, we entered upon the Bay of Biscay, which was unusually smooth and calm, and continued so until the following night. This interval was enlivened by the sight of a whale, and abundance of porpoises sporting about the ship.* We again saw land a little before dusk on the 23rd; this was Cape Finisterre. The sea had now become very rough, and the *mala-die de mer* commenced its usual havoc amongst the passengers. Cape Finisterre is a remarkably bold headland, and I shall not readily forget the awful grandeur of its appearance when next I passed it, on the 22nd of October, 1850; a storm was prevailing, the sky was covered with dark lowering clouds, lightning flashed through the gloom, the sea was raging, and the towering gloomy cape appeared frowning upon us as if threatening our destruction. We were far too near for me to feel quite comfortable, although I was glad to witness the scene. It appeared to be an extremely likely place under such circumstances to be indeed a *finisterre* to any poor mariners who might have the misfortune to strike thereon.

All the next day our course was parallel to the coast of Spain and Portugal; we were, however, too far out on the Atlantic to see the land, but on the 25th (the following day) we approached

* These are almost invariably prophets of bad weather.



near to and passed Cape St. Vincent. The cape and the whole of the coast is bold and grand, presenting a lofty cliff to the sea, and shows an interesting geological section, indicating great disturbances of the strata.

It was off this cape, on the 14th of February, 1797, that Admiral Sir John Jervis, in command of the Mediterranean Fleet, fought and defeated the armament of Spain, which consisted of nearly double the number of ships, and more than double the number of guns and weight of metal than were in the Mediterranean Fleet; this battle was called after the name of this celebrated cape; and for this victory, achieved against such odds, the British Admiral was raised to the peerage, under the title of St. Vincent.*

As we rounded the cape, the national flag of Portugal was hoisted by way of salute from a building on its summit, near its extreme point, said to be a monastery. The coast of Portugal here trends to the eastward, until it joins that of Spain, which again takes a southerly direction to Cape Trafalgar. Upon passing this cape we entered the straits of Gibraltar. This celebrated channel is generally reckoned to commence here, and to terminate at Europa Point, on the coast of

* The name of Nelson should never be forgotten in any mention of this victory.



ENGLAND TO CALCUTTA.

CSL

Spain, about twelve leagues to the eastward, on the European side of the straits, and to extend from Cape Spartal to Ceuta Point on the African coast. The width between Gibraltar and Ceuta is about five leagues, but at its western entrance it is about eight leagues, and diminishes towards the middle, opposite Tolima, a town on the Spanish coast, where it is only about nine miles in breadth. Trafalgar will ever remain a celebrated name in the annals of naval warfare, for off this cape, on the 21st of October, 1805, Lord Nelson, with the British Fleet of twenty-seven sail-of-the-line, gained a splendid victory over the combined fleets of France and Spain, consisting of thirty-three sail; and, unfortunately, lost his life.

It was early in the morning of the 26th of July, that we entered the straits. On our left lay, on the margin of the sea, the Spanish town of Tarifa, beyond which appeared the mountains of Granada; and obliquely, on our right, were the mountains in Morocco. Before us the Pillars of Hercules rose to our view, the one on the European side is the far-famed rock of Gibraltar, the other pillar, on the African side, is named Mons Abyla. We entered the fine bay formed by the promontory of Gibraltar on the east, and the shore of Spain on the west and north; here and there appeared a town or fort, and Algeziras, a consider-



able town, lay on the west side of the bay opposite our great fortress. This town was of great service to the enemy during the great and long siege of Gibraltar, which commenced in 1779, and did not terminate until peace was made between England, France, and Spain, in 1783. We reached the anchorage off Gibraltar at about half-past ten in the forenoon,* and our Captain was so obliging as to take my wife and self on shore with him; this saved us some annoyance from the importunities of the crowd of boatmen surrounding the ship, whom the Captain designated as the refuse of all the nations and islands in the Mediterranean, who fly here as to a city of refuge, and obtain a living in any way they can.

* The outward passage from Southampton to Gibraltar still takes five to six days for its accomplishment, but on the return home there is less delay.



CHAPTER III.

GIBRALTAR TO MALTA.

WE landed close to a market-place outside of one of the gates leading to the fortress; here were exposed for sale abundance of fine fruit and vegetables from the opposite coast of Barbary, from whence large supplies are brought, it being a kind of domestic market for the inhabitants of the Rock. In this market-place, either lounging about or amusing themselves in various ways, were a number of singular-looking people dressed in picturesque, but mostly shabby and dirty costumes; they were from all parts of the Mediterranean shores, Moors, Spaniards, Genoese, Maltese, Greeks, and innumerable others; some had brought supplies from Morocco, some were engaged in contraband trade* with Spain; some

* This trade still flourishes as actively as ever, in spite of all efforts to suppress it, and much to the annoyance of the Spanish Government, who still look upon our occupation of the Rock with anger and jealousy. The attempts of the Spanish gun-boats to prevent this traffic, are a frequent cause of disputes between the Spanish and English Governments.



obtained a living as boatmen, others were employed as porters, and many in ways best known to themselves. They appeared to be a doubtful if not suspicious set; but in an isolated place like this, they are more or less necessary to the garrison and the permanent inhabitants.

We passed through the gate into the town, and hired an open carriage to convey us to such interesting spots as our time would permit us to visit, for we were to proceed again upon our journey before the evening. But here we found a difficulty at once, our driver and ourselves could not understand each other's language, and we came to a stand-still in the upper part of the town; after some delay I observed two military gentlemen looking over the ramparts towards the bay; to them I stated my difficulty, and the elder of the two stepped towards the carriage, and after some inquiries as to the length of our stay, said "That our time would not permit our seeing much of interest on the Rock, but he would direct the driver where to take us that we might see as much as possible." This politeness prevented us losing the day entirely. We drove to Europa Point, saw General Fox's very pretty house, also much of the external fortifications and the town. Our kind director had expressed regret that we could not see the caverns; however, our time was



CSL

ENGLAND TO CALCUTTA.

not badly spent, and we saw a good deal of the place.

I had observed that the rough-looking fellow who was driving us, and one or two similar looking men, who, for what reason I know not, had come with the carriage, had shown the most respectful deference to the gentleman who had directed them where to convey us, and I was desirous of knowing his name, but could not learn from my escort; before quitting the Rock, however, I ascertained that *he* was no less than the Governor of the place, Sir Robert Wilson, and that the other gentleman was Colonel English*, the commanding engineer, whom I had formerly known, but had not seen for twenty years; we had evidently forgotten each other. Sir Robert Wilson, together with two other English gentlemen, were the persons who contrived the escape of Lavalette from prison in Paris shortly before he was to have suffered death for treason to Louis the XVIIIth, by joining Buonaparte on his return from Elba in 1815. They had also planned the escape of Marshal Ney, which in all probability they would have

* Colonel English, R.E., had been employed upon the Ordnance Trigonometrical Survey in Ireland, and Mr. Simms had served under him in 1825-6 as chief of the computing department. The caverns above mentioned, are believed to be ancient cave-dwellings.



succeeded in had his execution been delayed but a day or two longer, as they expected.

Nothing particular attracted our attention in the town; in general, the houses in the better streets were three or four stories high, and mostly built after the English style, but many of them partook of the Spanish and Moorish character, having a central court yard into which the chambers opened. The appearance of the shops and the kind of goods exposed for sale were similar to what we see at our own seaports, there also appeared to be no lack of wine and spirit houses.

The peninsula of Gibraltar is about two and three-quarter miles in length, and three-fourths of a mile average breadth; the greatest elevation is about one thousand four hundred and thirty-nine feet above the level of the sea. The ridge or backbone of this promontory runs lengthwise, and being near the eastern side renders that part of the rock precipitous and inaccessible to an enemy. On the western side of the ridge the surface, although uneven, slopes towards the bay, and upon this slope the town and the important buildings connected with the garrison are built. The latitude is $36^{\circ} 6'$ north, and longitude $5^{\circ} 21'$ west. The population, independent of the garrison, was said to number about fifteen thousand souls.



Gibraltar is considered to be the key to the Mediterranean, and therefore to a maritime country like England, having such vast interests in the East, its possession is of first importance. It was conquered from Spain by the English in July, 1704; the Spaniards, with the help of the French, immediately attempted its recovery, but failed, and it was not until 1713 that the Rock was ceded to Great Britain by treaty. In 1727 the Spaniards again unsuccessfully besieged it. But it was in June, 1779, that the great siege of this fortress commenced, which was carried on by the united power of Spain and France, and was not terminated until February, 1783, having had a duration of nearly three years and eight months, since which time Gibraltar has remained in our possession unmolested.*

We quitted Gibraltar in the afternoon of the day of our arrival, namely, Saturday, the 26th of July, and after passing Europa Point, situated at the south end of the Rock, we shaped our course down the Mediterranean. This evening our Captain came to me and said, that he never liked Sunday to pass without Divine Service being

* For an account of the capture, or rather seizure of Gibraltar, for there was but little fighting, see Wyon's "History of Great Britain during the Reign of Queen Anne," p. 280-1.



read on board his ship once at least, and that it seldom happened he was without a clergyman or missionary on board to whom he referred this duty, but on the present occasion there was no clergyman in the ship, and having looked around him for help in this matter, he thought I was a very suitable person for the office, and he should be much obliged if I would undertake it. To this unexpected request I urged that it was usual for the Captain, or his chief officer, or the doctor to read prayers; he replied that both himself and his chief officer were Presbyterians, and furthermore being Scotchmen they were unable to read aloud without certain peculiarities of utterance which might occasion jesting amongst some of the passengers; also the purser, being a Roman Catholic, would not do it, and lastly the doctor he objected to, because he was so young a man. Some further discussion took place upon the subject, in which the late Colonel Cureton* joined, and it was at length arranged that I was to read the Church Service on the following morning.

Sunday morning came, I had quitted my cabin

* Colonel Cureton was a most distinguished officer, who in his anxiety for military service, enlisted, and subsequently received his commission. He was killed after his arrival in India, during the second Sikh War, under Lord Gough.



CSL

ENGLAND TO CALCUTTA.

to get a bath, and during my absence my wife overheard something like the following conversation between two of the seamen who were cleaning the deck, near to our cabin door. "Tom," said one, "I suppose we shall have no church to-day, as there is no black-coat on board." "I suppose not," was the reply; "it is some time since we have been without a black-coat; there were lots of them last voyage, and a bishop into the bargain. Well, we can do without them, they make so much fuss, and cause lots of bother." "I suppose," said the first voice, "our having no black-coat is the reason we have had such a capital run, and such fine weather this voyage." "Ha! ha!" said the other, "very likely," and more talk of this kind.

It appeared that the Captain and Colonel Cureton had said nothing about the performance of Divine Service, for some surprise was evinced when orders were given for "rigging the Church," as the preparations were called, and a good deal of conjecture was hazarded, as to who was to officiate as parson. At the usual hour for Divine Service, the ship's bell was chimed, so as to precisely resemble the sound of the "Church-going Bells" in happy England, thus summoning the passengers and the ship's company to prayers.



When all were assembled, the scene was extremely pretty. A large awning was spread over the after part of the ship, beneath which chairs and forms were arranged for the passengers and the crew. The Captain and the officers were in uniform, and the men in their best clothes, each of them possessing a Prayer Book. A flag was spread over the capstan, which served as a reading desk, and a hassock was placed for the reader to kneel upon. The sun shone brightly overhead, a gentle breeze murmured amongst the rigging, and the sea was almost unruffled; this, together with the cheerful countenances of all present, formed a happy scene, not easily to be forgotten. The question, who was to be the parson? was still unresolved, when Captain McLeod, with a respectful bow, announced that all was ready, and requested me to officiate. At the conclusion of the prayers, the worthy Captain again stepped forward, and on his own account, and that of the ship's company, thanked me. This proceeding was repeated on the following Sunday, and from that time it was believed amongst the crew that "they had a black-coat on board after all."

We now sailed along the African coast, and for several days enjoyed the sight of a fine moving panorama, with this difference, that it was ourselves, and not the scene that was in motion.



CSL

ENGLAND TO CALCUTTA.

The coast was a bold one, and the land between the margin of the sea and the foot of the hilly, or rather mountainous escarpment, appeared but narrow. At one place an obelisk was erected to commemorate the landing of the French army on that spot, when they invaded Algeria in 1828. The fine and continued view we had of the coast, was obtained by the Captain's purposely sailing so much closer in shore than usual, which he was enabled to do with safety because of his extensive knowledge of the locality, and we thereby obtained and enjoyed a great treat.

On the 28th, at about eleven in the forenoon, we reached Algiers, and passed very close to the end of the mole. We had a fine view of the city, and also saw the ruins of the powder magazine which had exploded in the preceding month of March. Our ship was steered into the bay, and presently the Captain informed me that we were then on the spot where the British fleet lay when they bombarded Algiers in 1816;* he then gave me an interesting account of that bombardment, and being on the spot, the details of that event were perfectly intelligible.

* Under Lord Exmouth. This exploit was more successful than the attack upon the forts of Sebastopol during the Crimean war; whilst in the Baltic, at the same time, Cronstadt was left untouched, and Bomarsund only destroyed after its capitulation to a land attack.



Algiers, as seen from the bay, is pyramidal in shape, the houses are white, and apparently closely built, with here and there domes and minarets, which I supposed to belong to tombs and mosques. The whole scene brought to my recollection the printed views of Algiers published in London at the time of the bombardment, which gave an excellent idea of the place as seen from the sea.

We stood out of the bay, and bid adieu to Algiers, continuing our course along the coast of Africa. The sea had now become very rough, and sea sickness again attacked many of the passengers. On the 31st we lost sight of the land as we crossed the Gulf of Tunis, and during the day, we passed the beautiful Island of Pantellaria, one of the several candidates for the honour of being Calypso's Island, but now only used by the King of Naples as a convict station.*

* Pantellaria is still a convict station, but it now belongs to the Kingdom of Italy, along with all the other possessions of the late kingdom of the Two Sicilies. Ulysses is said to have been detained upon Calypso's Island seven years, a period of captivity not unknown in Pantellaria in these days; but its claim to this honour is a feeble one, for authorities assert the name of the place of his captivity to have been Ogygia, an island situated in lat. $38^{\circ} 57'$, long. $35^{\circ} 8'$, that is close to the west coast of the lower extremity of the Italian Peninsula, whereas Pantellaria was formerly called Cossyra, and is to



ENGLAND TO CALCUTTA.

CSL

I will add, that as we passed the mole at the Bay of Algiers, which was either being repaired or enlarged, the French, of whom numbers were there at work, did not return our ship's salute, and as I have been subsequently informed, so disliked these visits, that they desired them to be discontinued.

At four o'clock on the morning of the first of August, we drew near to the Island of Malta, but as it was yet dark, our prudent Captain chose to slacken speed, and there remain until day-light before he guided his good ship into the grand harbour of Valetta.

be found in lat. $36^{\circ} 46'$, long. 30° . However that may be, this island is a dangerous one, for though the water is deep close in shore, yet the currents are deceitful, and H.M.S. "Lord Clyde," being unmindful of this fact, had the misfortune to go on shore there on a calm night, whilst waiting to help a vessel shipwrecked a few days previously.



CHAPTER IV.

MALTA TO ALEXANDRIA.

IT was dark when we approached Malta, on the morning of the 1st of August, and as we did not enter the harbour of Valetta until the morning dawned, the ship was brought to at some distance from the entrance. Shortly before daylight, the Captain called me to leave my bed, and view the port and city by sunrise. I accordingly quitted my cabin forthwith. We were now not far from the entrance, and the ship's head was towards the opening, whither she was moving at a snail's pace. Daylight was fast advancing. The impregnable fortifications, the picturesque tiers of houses, the war ships of Great Britain, and the castle of St. Elmo all appeared in splendid combination, and improved in grandeur, as a beautiful golden sun rose in a cloudless sky to illuminate this glorious picture, to which neither pen nor pencil could do ample justice.

As we passed into the narrow entrance of the harbour, the castle of St. Elmo towered above us on our right hand, and Fort Ricasoli appeared on



CSL

ENGLAND TO CALCUTTA.

our left, that of St. Angelo fronted us, and other batteries, high up and about in all directions, seemed as if they could defy for ever the power of any enemy who might approach from the seaward. It was with feelings of emotion I entered this harbour, knowing of the mighty struggles, and the enormous carnage that had occurred here in former days, between the Knights of Malta and the Saracens, who attempted to dislodge them, and also of the more recent events in its history, such as the French occupation by Buonaparte, on his way to Egypt, in 1798, and its subsequent conquest by the British. Before us, further in the harbour, lay Her Majesty's ships, and as we passed St. Elmo, the morning gun was fired; in an instant the ships of war appeared alive with animation, and so indeed did the whole harbour and the adjacent shore.

As soon as our ship had reached her berth, a boat came alongside with the quarantine officers to ascertain that we were not bringing sickness into the place. The quarantine boat did not come close alongside at first, but their officers extended a box towards the persons on board our ship with whom they were communicating; into this box were thrown the required papers, thus avoiding personal contact; they then read the papers, and having asked a few questions, were satisfied that



all was right as to the health of the ship, and we immediately prepared to land.

We set foot on shore at a picturesque landing place, by the custom house,* and then ascended a long flight of steps, to a steep road leading over a drawbridge to the town; near the steps there was an abundance of fine fruit exposed for sale, brought, as we were told, chiefly from Sicily, from whence Malta receives large supplies of various kinds. On ascending these steps I saw for the first time in my life, a plantain tree growing in the open air, which, together with the aloes we had seen at Gibraltar, gave us our first introduction to tropical botany.†

* This arrangement no longer exists, as the mail steamers are berthed in the Quarantine Harbour above the Lazaretto, so that passengers have to land at the "Marscha Maschetto Stairs." At the time of Mr. Simms' visit, they used to land at the "Nix Mangare Stairs" in the great harbour; and these stairs still exist, and deserve their name as much as when made famous by the late Captain Marryat, in "Midshipman Easy," &c., for they are the head quarters of the beggars with whom the whole island is infested, and who are said to cry, "Nothing to eat, sare, till the day after to-morrow," as lustily now as then. These men are as sturdy and well nourished as any beggars in Europe.

† Malta can boast of two summers, if a double vegetation can be called a summer; the winter is marked by an exogenous growth, and plants such as we see in England, flourish fairly well; whilst in the summer tropical and sub-tropical plants take fresh life and appear in greater vigour,



CSL

ENGLAND TO CALCUTTA.

The town or city of La Valetta is truly very fine, being built upon the tongue of land which divides the two harbours; it chiefly consists of long streets, running parallel to each other and to the harbour, upon ground sloping towards the water, and these streets are connected with each other by short steep streets, at right angles to their general direction. Some of the streets are indeed nothing else than long wearisome flights of steps, such are the Strada Santa Lucia and the Strada S. Giovanni, &c. The houses are built with stone, and appear to be commodious as well as handsome.* I

because of the desication of the rest. The summer heat is so intense that the island has gained the name and character of the Mediterranean frying pan; whilst the rainfall is very scanty, and for this reason, and also because of the shallowness of the soil, forest trees, which usually attract rain-clouds, cannot be grown; lately, however, an attempt has been made to grow some, but with little success as yet. At various times garden soil has been brought from Sicily and other parts by the inhabitants, who have done wonders with this barren rock, so that green fodder for cattle, oranges, and cotton, are grown there; but the last-named for the first time only during the war of the Secession in the United States of America.

* Having projecting balconies so constructed as to enable the occupants to see, by means of side lights, both up and down the streets. This style of building is common in Oriental cities, and may also be seen in many German towns; some of the handsomest are at Nuremberg, but the most highly finished the editor has seen, are at Rorschach, on the Lake of Constance. As most German cities



observed that in many instances the lower floors of the houses were let out as shops. The Cathedral of St. John is a magnificent building, and so is the residence of the Governor, which was formerly the Grand Master's palace; indeed, the whole of the public buildings are very fine.* We also saw, with considerable interest, the Protestant Church, recently erected at the expense of the late Queen Dowager Adelaide, widow of King William the Fourth. The city receives its supply of water through an aqueduct of about seven or eight miles in length, which we saw on our way to Citta Vecchia.†

We hired a carriage to enable us to see as much as possible of the island during our very limited stay, and first we drove to Citta Vecchia, ‡

began to prosper with the development of trade which followed the Crusades, this feature of their buildings may also be Oriental in its origin.

* Since this visit here detailed, an opera house has been designed and built by Mr. Barry, which, until its destruction by fire, might fairly be considered one of the most elegant in Europe.

† Due to the Knights of Malta, who also constructed a dockyard and built here their vessels, with which they made war against the Salee rovers and other pirates of the Mediterranean. The Maltese Islands were given to the Knights of St. John of Jerusalem in 1530 by the Emperor Charles the Vth., after their expulsion from Rhodes by the Turks.

‡ Formerly called Citta Notabile. The cathedral is remarkable for the tasteful arrangements of the marbles of



CSL

ENGLAND TO CALCUTTA.

about seven miles distant. This place was the ancient capital of the island, but is now comparatively deserted. Here we saw the palace of the early Grand Masters of the Order of St. John, also the cathedral and others of the chief buildings. We likewise descended into the catacombs, an extraordinary labyrinth of great extent cut in the rock, and we proceeded a considerable distance along these underground passages. This almost deserted city was abandoned as the capital upon the erection of La Valetta, or Valetta, as it is commonly called, in 1556-71, which city was then adopted as the capital, and has remained so ever since. On our way back we visited the charming public garden called Boschetto, adjoining the country residence of the Governor of the island, and other places of more or less interest. In the evening we drove about the city and its immediate suburbs.*

Valetta is famous for innumerable figures of which its altar is composed, two difficult combinations, warmth of tone and lightness, having been effected. Here is pointed out the place where St. Paul preached his first sermon in Malta.

* Other favourite excursions are to St. Paul's Bay and also to the megalithic stones at Krendi, on the opposite side of the island to Valetta; these have been well described by Captain Oliver, R.A., who has also written about the stones at Gozo, as well as upon other pre-historic remains in the Mediterranean islands and coasts.



the Virgin Mary, and of saints, placed in niches at the corners of the streets, and also for the continual display of Roman Catholic religious processions, to which all spectators are expected to pay a certain amount of outward respect, whilst the members of that religion are expected to kneel, and make other signs of devout reverence. During the evening and in the early morning, the stillness so favourable to slumber, is constantly broken by the chiming and tolling of bells, for some purposes connected with religious services, which to my wife and myself, so fatigued as we were, proved an intolerable nuisance. Upon my naming this annoyance to Captain McLeod the next morning, he related the following anecdote of a former British Governor, Sir Thomas Maitland, commonly known on the island as "King Tom," who soon after his arrival as Governor, was so much annoyed by this continual bell ringing, that he requested the bishop to order it to be mitigated; the reply was, "That it was impossible to do so, as the bell ringing was part of their religious duties, and that all the services and ceremonies of their religion had been guaranteed to them by the British Government." This King Tom did not pretend to dispute, but in his turn caused a military band, including the big and other drums, together with some noisy



ENGLAND TO CALCUTTA.

CSL

instruments, to play before the cathedral whilst the Bishop was performing his part of the service. Upon the continued repetition of this dose, his reverence in his turn remonstrated with the Governor. "It cannot be helped," replied King Tom, "it is part of our military duties, and can no more be dispensed with than your bell ringing." It need scarcely be added that this led to a satisfactory compromise between the two authorities.*

What with the bell ringing, and the torment of mosquitoes, which appear to abound in Malta at this excessively hot season of the year, I had no inclination to remain in bed after daylight had appeared, and therefore, in company with my friend Fraser, sallied forth to see something more of the city; we had not proceeded far, when we met a party of our young gentlemen passengers, who looked tired, as if they had not been in bed that night, and sad, as though some calamity had happened to them.

"Downward they moved, a melancholy band."

Some hours afterwards we learned on ship

* The Bishop is an Arch-Bishop Bishop, his first title being derived from Rhodes, the head quarters of the Knights of St. John after their expulsion from Palestine. The large bell of the church of St. John is said to have once belonged to the cathedral of Rhodes, and the trumpet upon which the retreat from that island was sounded is in the museum of the Governor's palace. The see is believed to be the richest in the Mediterranean.



board that our younger friends had been enjoying themselves on shore, but not finding the day sufficiently long to satisfy them, had lengthened it by borrowing a few hours from the night, and during this unfortunate time, their youthful and excited spirits overflowed, and drowned their good sense; a misunderstanding with the guardians of the peace followed, and, at the time Fraser and I met them, they were saddened by the fact that two of their number were in limbo. However, through the good offices of an influential gentleman, and the power of money, they were enabled to regain the ship in time to save their passage.

The Island of Malta came into the possession of the British in the year 1800. It is the most southerly island in Europe, or rather group, for there are three islands, named respectively Malta,* Comino, and Gozo.† Malta, the southernmost of the

* Malta is perhaps the most populous island in the world, for it holds about one hundred and forty thousand inhabitants, including the garrison, sailors, and other visitors, of whom during the winter months there are a fair number, whilst its area is about one hundred and thirty-seven square miles.

† Gozo, though much smaller, is equally well peopled, having a capital, Rabbatto, the see of a Bishop. Comino is little better than a barren rock, and is uninhabited during a great part of the year; it has the country residence of a Maltese gentleman. The people of these islands are very



group, is about seventeen miles long, and nearly nine miles in its greatest breadth. Gozo is about nine miles long and five in breadth. The intermediate island of Comino is extremely small. The ancient name of the largest island was Melita, and was the scene of St. Paul's shipwreck, as described in the Acts of the Apostles. Tradition places the precise site of St. Paul's landing at what is called St. Paul's Bay, so named in consequence of that event.*

religious, and the number of clergy, churches, and conventual establishments very great. The church in Malta is still very rich in spite of its spoliation by the French, and one third of the land belongs to it. The clergy are said to form one per cent. of the population.

* This tradition has not been allowed to pass without dispute, and early in the middle ages a claim was set up for Melita, now Meleda, in the Adriatic. The subject has been fully gone into by Conybeare and Howson ("Life and Epistles of St. Paul," 1862), and by Lewin (same title, 1872), both of whom mention the researches of Mr. Smith, of Jordanhill, who, having previously visited both the islands, came to a conclusion in favour of Malta. However, some points remain open to question, the chief being the viper objection, for though *harmless* snakes are found in Malta at the present time, yet vipers are unknown to the residents, and are not mentioned in the island traditions; again, the Euroclydon must have been blowing unsteadily and veering round at times to S. and S.E (Sirocco), or a ship, made snug and hove to under small canvass or with none at all, and upon the starboard tack, must have drifted to the S.W. and fallen upon the coast of Africa; she could not otherwise have made the more or less straight W.N.W. course given



On the 2nd of August, about 10 A.M., we steamed out of the harbour of Valetta, and proceeded on our voyage. The appearance of Malta was extremely fine, as it receded from our view and sank below the horizon. The following day, being Sunday, Divine Service was performed as on the preceding Sabbath. During the Sunday afternoon the coast of Africa again became visible, in Mr. Lewin's chart (vol. ii, p. 336). On the other hand, the scriptural narrative gives Euroclydon (N. to N.E.) as the general direction of the wind, and does not mention any other, so that a course for Meleda, right in the wind's eye, would have been impossible under the circumstances.

Meleda abounds in poisonous snakes, and was, in the days of St. Paul, a barbarous island, a place, in short, where the centurion, who considered St. Paul to be the most valuable person of his whole charge, would hardly have kept him for some months at great risk, but would have sent him to some one of the ports on the Italian coast more directly on the road to Rome, instead of by Syracuse, a more dangerous and longer journey.

To describe Malta as in *Adria*, is to enlarge that sea unwarrantably, for rightly speaking, it lies between the *Mare Siculum* and the *Africum Pelagus*, both sub-divisions of the great *Mare Internum*; but both St. Luke and other scriptural writers of older date wrote, as is well known, in general terms. Clearly the weight of evidence is in favour of Malta, for no Roman Governor could have been wanted at Meleda, whereas Malta, originally a Carthaginian colony, wherein a dialect of Arabic is still used as the native tongue, would have been occupied as a most useful outpost and perfect harbour for the African coast. It was then, as now, a place of call, and nothing more.



CSL

ENGLAND TO CALCUTTA.

but quite low on the horizon, and we saw it to no better advantage until we approached Alexandria.

On the second day after leaving Malta, the peculiarly deep blue colour of the Mediterranean Sea appeared to great advantage; it was extremely intense; I had not seen it so well before, and perhaps have never seen it so splendidly since. This beautiful appearance is doubtless due to the great depth of the water (for I believe it is never seen where it is shallow), and to reflection from a cloudless sky. In the same manner the intense azure sky we occasionally see when the atmosphere is clear, arises from the immensity of space (or great depth of the atmosphere) our vision is then able to penetrate.*

During the whole of our passage along the Mediterranean, we had the pleasure of seeing every

* The cause of the deep blue colour of the sea and of deep lakes also has been a disputed question, thus Sir H. Davy attributed the tint of the lake of Geneva to the iodine contained in its waters; but the author's explanation is most probably the correct one, for we find Lac Lemán, the deepest of the Swiss lakes, of a deep blue colour; the lake of Lucerne, of a lovely emerald tint, and the lake of Constance, in which the water is very shallow, of a yellowish-green hue not pretty to look at. In shallow waters the nature of the stratum upon which the water lies influences its colour considerably, especially in bad weather, and this fact some artists may study with advantage.



night the phosphorescent illumination of the sea ; it only appeared along the crest of the waves when they were broken, or on the disruption of the water by the prow of the ship, and also by the action of the paddles ; it was an extremely pretty sight.

But pleasing as this was, it was very insignificant in comparison with what I once saw in the Bay of Bengal on two successive nights ; the ocean, which was then remarkably smooth, was, as far as the eye could reach, in all directions, one glorious illumination. The words of my diary, written whilst the phenomenon was before me, are as follows :—“The whole ocean appears as if it were studded with stars of the first magnitude.” This, however, I felt to give an inadequate idea of the sight. It might have been said to have resembled the milky way thickly studded with stars of the first magnitude, many of them having the brightness of the planet Venus, thence downwards in brilliancy to simple nebulous light.*

* The first similitude is perhaps the better, for the Medusæ (Hydrozoa) give rise to the appearance of light derived from stars of the first magnitude, or as the light, on a calm night is tolerably steady, to that emanating from planetary bodies. The editor has sailed through many miles of illuminated jelly fish off the Malabar coast ; but in our climate they rarely light up except in summer,



During the intervening day I observed immediately beneath the surface of the sea, a broken mass of what resembled pieces of oakum, or various sized fragments of an old cable picked to pieces and thrown overboard; the ocean was covered with it, and this, which appeared so contemptible by daylight, I believe to have made that splendid display by night. I must leave the explanation to the more learned in such matters than myself.*

It was a curious sight, when upon my return voyage along the Mediterranean, I was taking my usual shower bath soon after the change of watch, at 4 A.M., while it was yet dark, to see the luminous particles descending upon, and running down my body like liquid fire. These particles, if such I may call them, were so extremely minute that I could not detect in them any appearance of solidity. I first witnessed this phenomenon in the summer of 1842, at Hythe, on the coast of Kent, where it was only visible when the waves broke upon the shore. But I may remark that and then only upon the approach of a storm. The Medusæ (jelly fish) are of course very plainly visible, and swim separately, though very closely.

* From this paragraph it may be inferred that noctilucae (Protozoa) were present as well as jelly fish, for these give out a stellar light and are much smaller; the editor has never seen the two together, but has often caught noctilucae separately.



on that occasion the flickering of that phosphorescent light was visible at night in a vessel of sea water, brought into the house for the purposes of ablution, whenever it was agitated.*

Returning from this digression, it was early in the morning of the 5th of August that Alexandria was seen at some distance ahead of us; the weather was fine and very hot. A remarkable appearance exhibited itself over the city and its vicinity, the sun shone with a strong red glare, through an orange coloured mist resembling a red fog, whilst the other parts of the sky were quite clear; this phenomenon was caused, so our Captain stated, by a cloud of fine particles of sand raised by the wind, although but a moderate breeze was then blowing. During the few preceding days we had had much sand-like dust on board the ship, which doubtless had been blown over the sea from the coast of Africa.†

* The Medusæ which give rise to this appearance are microscopic. (See Professor Rhymer Jones' works.)

† The author does not give the direction of the wind during this dust storm, but most probably it came from the S.E., and was a sirocco. A few years ago some of this dust was collected by an enthusiastic investigator, who, placing it under a microscope, discovered it to be of the same composition as the dust from South America, and in no sense African. The theory constructed to back up this observation is that the trade winds cause upper reflex atmospheric currents, and so bring solid matters across the



ENGLAND TO CALCUTTA.

CSL

During the forenoon we dropped our anchor in the port of this far famed city, where a most lively scene presented itself. The first objects attracting our attention were a line of Egyptian ships-of-war, each flying the Turkish flag; men-of-war's boats, with sailors having red caps on their heads, were continually passing to and fro; many ships of various nations, and innumerable small craft, were lying at anchor, and the numerous boats plying between the shore and the shipping made the harbour appear really alive; such activity and bustle indicated the transaction of business of no contemptible amount.

Almost before our anchor was let go, we were surrounded by boats of all sizes and kinds, some to convey the mail boxes on shore, others goods and merchandise, and many with clamorous crews soliciting to be chartered by the passengers. An officer from the Viceroy came to look after the magnificent silver fountain expected in our ship, as a present to his Highness from the East India Company, which elegant piece of workmanship had recently been privately exhibited in London, where I had seen it. The Admiralty agent and those under his direction were promptly at work

ocean, much in the same manner as the warm and cool waters of the ocean travel about the world. Theory and hypothesis are different things.



getting the mail boxes out of the ship. And the deck was soon again heaped with the passengers' luggage and the merchandise, and all was bustle, noise, and apparent confusion once more.

We now took leave of our worthy and excellent Captain, hoping hereafter to renew the acquaintance which had commenced so agreeably ; little did we then think that the worthy man, a few months afterwards, would put an end to his own existence, in a fit of melancholy arising from the loss of his ship upon the coast of Spain.



CHAPTER V.

ALEXANDRIA TO CAIRO.

As soon as the boats which carried the passengers on shore reached the landing place, they were beset by a noisy crowd of dark-skinned gaunt-looking fellows and boys seeking to be employed; there were dragomen, porters, and donkey drivers with their animals, a clamorous mob, struggling, shouting, and pushing each other to get access to the new arrivals; they were all jabbering at the top of their voices the respective merits of themselves or their animals. Before we had well landed, this boisterous mob rushed upon our boat, and it was with difficulty that we set foot upon the shore owing to their pushing to get access to us; the noise they made was equally troublesome, all of them bawling at once, and they crowded upon us so that we were jammed and jostled in a very uncomfortable manner. I had enough to do to defend my wife from their rudeness, and my packages from abstraction; in this dilemma my friend Fraser came to the rescue, and laid about him vigorously with a stick, notwithstanding the



odds as to numbers, he thus kept the crowd off, and enabled us to select the porters and donkeys we required.

At length we were mounted, and trotted off at a good pace, the driver holding on at the crupper, shouting at and abusing the poor animal lustily, and occasionally, but not so frequently as do their brethren in England, reminding him in an unmistakable manner that his master was behind him. The donkeys of Egypt are much more lively animals than those of Europe, and vastly superior to those of India; this may be owing to a more favourable climate; be this as it may, instead of the melancholy obstinate animal he is with us, he is here spirited, active, and willing, and his amble and gallop are not so fatiguing as the jolting of the sad-looking donkeys of Hampstead Heath, or any of our watering places. The ass in Egypt is universally employed to carry people from place to place, and in this respect is the equivalent of our cabs. And the camel in that country is in the like position with our carts for the conveyance of heavy goods.

Here I first heard the word "backshish," a perfect clamour for which arose as we prepared to start. It is in almost every one's mouth in this country, and on every occasion; old people and little children all cry "backshish!" "back-



shish!" that is give present, and it is pretty much the same throughout the East, India not excepted.

My first impression of Alexandria gave rise to a feeling of disappointment, for although I knew that no remains of the city of the great Macedonian conqueror were to be recognised with certainty, yet I expected to see a more Eastern-looking city than was presented by the mongrel piebald town I found it to be, neither European, Saracenic, nor anything else, but a "higeldy pigeldy" jumble of all kinds of domestic architecture.* Here were formal whitewashed buildings, constituting the European quarter, whilst that of the natives contained brick and clay erections with terraced roofs, interspersed with mud hovels, such as disgraced Ireland thirty or forty years ago. The bazaars disappointed me, the shops therein looked like temporary appendages to the buildings, and resembled in a measure the gingerbread stalls at a country fair in England. Whilst riding through the bazaars I first heard the Muezzin call to prayer from a gallery on one of the fine slender minarets of a portly-looking

* This city was founded B.C. 332, and soon equalled Rome in size and excelled it in commerce. Its founder was buried at Soma, a part of the old city. In the present time the place no longer deserves the harsh criticism of these lines.



mosque, which to me was interesting, and helped to compensate for my general disappointment.

The principal place is the square in the European quarter; it is a large rectangular area, surrounded by lofty white coloured houses having a Frenchified appearance, which was not diminished by the flags displayed from many of them, denoting the residences of the consular representatives of the nations of Europe and of America. In this square a fine ostrich proudly strutted about, tame, of course, but being in its native climate and at liberty, he looked extremely well, contrasting greatly with the specimens in captivity at home.

The leading thoroughfare of the city traversed the great square, and during the day the celebrated Viceroy Mehemet Ali with his retinue passed through it towards his palace; he was seated in a low European-built carriage, having a leathern cover or roof, smoking his hookah; numerous outriders accompanied him, some on horseback, others on swift-going camels or dromedaries; several carried the utensils necessary to their office, such for instance the coffee bearer, who thereby was enabled to prepare that refreshing beverage for His Highness at a very short notice.

Mehemet Ali was a fine looking old man, with a luxuriant beard of silvery whiteness; the printed



portrait of him which I had recently seen in the cabin of the "Great Liverpool" was a striking likeness. He was said to have been born in 1769, the same year in which both the Duke of Wellington and Napoleon Buonaparte came into the world. Originally he came from Roumelia in Turkey, and of humble parentage, but by means of great energy, talent, and good fortune (which is frequently the result of energy) raised himself to a throne; for his vice-royalty and subjection to the Sultan of Turkey had become little more than nominal.

The palace of this distinguished ruler is situated on the neck of land overlooking the harbour. I could not obtain access to it upon this occasion, but had an opportunity of doing so five years afterwards. It is a commodious building, and the style of the interior is a compound of French and Oriental decoration, with a good deal of splendour; French architects had been employed to design it.

The celebrated column, popularly known as Pompey's Pillar, stands on a considerable eminence in the vicinity of a burial ground; an elevation said to consist of the rubbish of the ancient city. The shaft of the column consists of a single piece of red granite, and is reputed to be sixty-seven feet long. Denon, the



French savan, who accompanied Buonaparte to Egypt in 1798, remarked that the pedestal and the capital were not made of the same granite as the shaft, and also that he considered its erection to be of much later date than has generally been supposed, and that it was not erected to the honour of Pompey; in fact, the history of its origin is unknown. Denon and other members of the scientific corps of the French expedition took much pains to ascertain the height of the column, as well as of its various members. The result of their labours gave for the total height, including the base and the capital, eighty-eight feet six inches French, which is equal to about ninety-four feet of English measurement. They also discovered on its summit indications of the former existence of a pedestal on which probably was placed the statue of the hero to whose honour the column was erected, but this of course was only conjecture.*

It was annoying to see this interesting monument disfigured with persons' names, apparently written with paint, some of them being in situations that must have occasioned both trouble and expense. It is much to be regretted that those who had

* Since this time a Greek inscription has been discovered at the base of the column, by which it would seem to have been erected in honour of Diocletian, about A.D. 300.



ENGLAND TO CALCUTTA.

CSL

done this, had been so void of taste and good sense as not to leave their names in the same obscurity with themselves.

Cleopatra's Needle I found lying upon the ground, quite neglected and partly covered with dirt and rubbish; it was much chipped and broken at its angles by some Arabs who lived in hovels close at hand; and these chips or pieces they sold to those visitors who were desirous of possessing such relics. Upon the occasion of my visit, finding I would not purchase the fragments offered for sale, they tendered me the use of a heavy hammer to break off a relic for myself, imagining that I doubted the authenticity of their wares. I endeavoured to make them understand my disgust at their proceedings, but most likely without effect. In this way the obelisk has become so mutilated that no wonder the British Government have not thought it worth removing to England, although it was presented to them many years ago. The fellow obelisk is still erect close by, and appears to be in comparatively good preservation.*

* Cleopatra's Needle is now (June, 1877) exhumed, and a telegram in the "Standard" announcing this fact says: "Eighteen inches of the apex are gone, and the corners are damaged, but otherwise the obelisk is in fair condition." It is well known that Professor Erasmus Wilson undertakes the great work of its removal and transhipment at



We put up at the Hôtel de l'Europe, where the accommodation was not much to be complained of; it was situated in the great square before named. The entrance was under a gateway like many of the old-fashioned inns in England; on the left hand was a wide staircase leading to the public part of the hotel, which was situated above. So many new comers being in the house, the place was beset by a crowd of donkeys and their drivers, so that the entrance was crammed with them, and when any of the visitors attempted to descend into the square, a violent rush of boys and donkeys was made towards them, even up several of the stairs, all the boys pushing and bawling together. My wife and I were jostled amongst them in a ludicrous manner, until we were relieved by Mr. Fraser, who with a whip he was now possessed of, cleared the gateway, when, having selected our animals, we rode off without further annoyance.

I had brought with me a letter of introduction from Mr. McGregor, of the Board of Trade, to the British Consul, but that gentleman was absent when I called; he, however, came to me as soon as he could, which was not till shortly his own risk. For a further account see a notice of the history of the connection of the English with this obelisk, in the "Athenæum" of September 22nd, 1877.



ENGLAND TO CALCUTTA.

CSL

before our departure for Cairo; he regretted his absence in the forenoon, as he would then have had an opportunity of presenting me to Mehemet Ali; such an interview would have been very acceptable, but it was not to be. I now had to prepare for our departure, to which we were summoned.

It was rather late in the afternoon of the 5th of August when we reached the wharf on the bank of the Mahmoudie Canal,* which being planted with trees, had a pleasing appearance. Two boats were waiting to convey the passengers to Atfeh, a town at the eastern end of the canal, forty miles from Alexandria, where it joins by means of a lock, the river Nile, or rather the Rosetta branch thereof. These canal boats were similar to those employed a few years ago in Scotland, and I believe in Ireland also for the conveyance of passengers; the floor of the cabin was below the gunwale of the boat, and the roof was elevated above it, forming a sort of poop deck. Our boat was towed by horses, who drew us along at a tolerably good pace; and after thus, journeying for about an hour, we heard a loud shouting of people approaching us from the

* An ancient canal, restored by Mehemet Ali in 1869, and long since superseded by two lines of rails, both to Suez, the first constructed *viâ* Cario in 1850.



opposite direction; the cause was soon apparent, the barge of the Viceroy's son, Ibrahim Pasha, was conveying His Highness to Alexandria; it was towed at a good speed through the water, and a number of men were loudly shouting to warn others to leave a clear passage for His Highness, which of course was made by us, as well as by all others, and so His Highness passed on.

The view we had from the boat was, with a few exceptions, confined to the sloping banks of the canal, which were nearly the whole distance higher than we were; we, however, had an imperfect view of the lake Mareotis;* and also another across a sandy district in the direction of Aboukir, where, in the bay so named, our great naval hero, Nelson, gained the victory of the Nile on 1st of August, 1798, whereby he destroyed the power of France in the Mediterranean. Here, also, on the 8th of March, 1801, the British Army under General Abercromby, effected a landing in the face of the French, and on the 21st of the same month defeated them at the battle of Alexandria, where their gallant General fell in the service of his country. The view before us could not fail of causing much con-

* Soon after the foundation of Alexandria, water was conveyed to it from lake Mareotis by means of a canal; the ancient cisterns still remain in the city.



CSL

ENGLAND TO CALCUTTA.

versation amongst the passengers concerning those stirring events; an obelisk, it was said, was erected to commemorate these victories, but we failed in making it out.

Nothing particular occurred during our passage along this neglected canal, the banks of which were certainly in very bad order; whilst almost the only objects of interest before us were the numerous contrivances for raising water from the canal to irrigate the adjoining land. There was the ancient "Persian wheel;" then a series of buckets or earthen pots attached to an endless rope, which passing over rollers was worked by the feet of men, as in the ancient Chinese tread wheel, or the modern tread-mill of England.* There was also the skin of an animal turned up at the corners and sides, being raised from and lowered into the water by the labour of buffaloes; and the last contrivance I will mention, was a bucket attached to the long end of a lever, similar to those I had seen in France, and subsequently saw in India.

Here and there we caught glimpses of vegetation, and saw some miserable looking mud huts, which, together with some palm trees,

* The author always spoke of the late Sir W. Cubitt as the inventor of the English tread-mill, and of the invention as an original one.



comprised all the objects besides those above enumerated that we noticed before dark, or I believe that were to be seen at all before reaching Atfeh, which we did shortly before the dawn began to appear.

The whole of the night had been passed on the canal, where, after partaking of the last meal of the preceding day, the passengers laid themselves down on the side seats of the cabin, or on the table, or the floor, as space could be found, in vain attempting to sleep, for amidst the bustle and noise of the crew in working the craft, the plashing and murmuring of the water as the vessel glided onwards, and the activity of certain personally obnoxious small creatures usually found where dirt prevails, getting to sleep was quite out of the question.*

The town of Atfeh seemed to be a straggling place, apparently consisting of mud erections of various dimensions and shapes. There were also gardens and palm trees scattered throughout the place. Our arrival occasioned some stir amongst

* The contrast between the journey of 1845 and the luxurious passage in a magnificent and thoroughly well appointed steam-ship of the present day, gliding along through the smooth waters of the Suez Canal, is perhaps more evident from this paragraph and the one relating to the passage across the desert from Cairo to Suez, than from any other portion of the narrative (chap. vii).



the inhabitants, and also disturbed the half-wild dogs which abound everywhere in the East, who set up a loud barking. Some activity was also shown by the crews of the numerous small craft moored there for the purpose of taking in or discharging cargo, and although the place was but small, yet it appeared to be important in a business point of view.

As soon as it was sufficiently light, our craft was passed through the lock into the Rosetta branch of the Nile, when after a short delay we were transferred to a small English-built steamboat, called the "Nile," in which we were to ascend the great river to Cairo, "The City of Victory."

We steamed away up the Nile, with little to behold except the mud-banks on either side, for the water of the river, although rising, was far from having attained its greatest elevation. Occasionally a group of black spots were to be seen on the water, these were the noses of buffaloes, who for the sake of coolness had immersed their bodies, leaving little else than their noses above the water, and that for the purpose of respiration. The carcasses of dead animals being feasted upon by vultures, were also seen; and now and then we obtained a view of the plains beyond, forming the delta of this celebrated river.



In due time we reached the main stream, and then the prospect greatly improved. Villages, mosques, and palm trees became numerous, and also melon plantations, with their elevated picturesque sheds for the shelter of those who had the care of them, reminding us of "the lodge in the garden of cucumbers" spoken of in the Scriptures; the whole scene was a pretty moving panorama. At length we reached the desert, a great barren expanse on either side, and the first though distant view of the Pyramids was soon afterwards obtained. Thus passed the day, and as the sun was setting the Mahomedans on board sank on their knees on the paddle boxes and other parts of the vessel to perform their evening devotions. A fine starlight night succeeded to a very hot day, and at about four o'clock on the following morning (the 7th of August) we reached Boulak, the port of Cairo.

Upon the steamer drawing alongside the wharf or landing place, a curious scene presented itself; it was a dark night, and the place was lit with torches and basket-like grates made of flat bar iron, in which wood fuel was blazing, some of them being carried on poles about six feet high. The torches and the fires, the wild appearance of the men, their bawling and shouting, and the noise of the



steam of the vessel, made a scene not easily to be forgotten. We again set foot on shore, and, through heaps of packages strewed and stacked on the wharf, were led to a spot where several vans, or small omnibuses, waited to convey us to the city of Cairo, of which Boulak is a suburb.

To each of these conveyances was harnessed four wild half-broken horses, whose restlessness at the noise and the glare of the lights, made an entry into the conveyance difficult, and when the passengers were in, off the horses dashed at a dangerous speed, the torch-bearers keeping up with us as best they could; in a short time the cattle became restive, kicked, and plunged fearfully, and kept backing in spite of the efforts of the driver and the attendants; from my place at the end of the van next the door I saw we were backing towards the edge of a precipice to which we were alarmingly near; it appeared to be a deep cutting as if for a canal. I awaited the result in silence, for any alarm would have occasioned a panic amongst the others of the company, and could not possibly have done any good; providentially no accident happened, for the animals becoming quiet, they again moved forward, and we were very soon in the city of Cairo, where we were driven to the British Hotel: thankful for our safe arrival.



CHAPTER VI.

CAIRO OR AL-KAHIRA.*

OUR stay at Cairo I knew would be a short one, but, being desirous of seeing as much of this famous city as possible, I was early astir, after having had about two hours' rest. The hotel was in full activity at that early hour, for but few of the passengers had been in bed, some of the others having contented themselves with a nap on the divans which surrounded the rooms, whilst the rest passed the time in smoking and drinking. One of my fellow passengers, who had travelled in Egypt before, introduced to me a Copt Christian,† whom he recommended as a guide,

* Cairo is now a well-recognised winter health resort for invalids afflicted with chronic bronchitis, on account of the freshness of the air, which comes dry and unused from the desert, whilst the mean temperature is about 60° F. and there is very little rain. The city dates from 970 A.D.

† So called from *Κοπρος*, a city near Thebes, said to have once been the capital of Egypt, and to have been destroyed by Diocletian; they seceded from the Greek Church of Constantinople about the middle of the fifth century, and owing not only to the early persecutions here mentioned, but also to the quite as severe trials imposed upon them by the



he having employed him in that capacity on a previous journey; I therefore engaged him, and, each mounted on a donkey, sallied forth to view the city.

The Copts are supposed to be the descendants of the original Egyptian people, and in their features are considered a good deal to resemble the ancient sculptures of the country. They are much employed as collectors and clerks, and in analogous occupations, and are not deficient in shrewdness. When Egypt received the Christian Faith they suffered a cruel persecution at the hands of Diocletian, which prepared the way for the subjugation of the country by the Mahomedans in A.D. 640. Large numbers of the original people, however, remained stedfast to Christianity, although I believe in rather a corrupt form, and the descendants of them are usually called "Copt Christians," of whom my dragoman, or guide, was one.

After passing through several streets, the guide suggested my taking a Turkish bath, which he said would greatly refresh me. I assented, and had a bath with a vengeance and no mistake! Let me endeavour to describe it.

We stopped at a door way, where I was re-Mahommedans, are much reduced in number. Their religious ceremonies are said to resemble those of the Jews.



quested to alight, and enter the building, my guide leading the way; we were met in the passage by a youth, one of our fellow travellers, who was bound for the East to join a regiment in which he had recently been honoured with a commission to carry the colours. He looked both astonished and, alarmed, and as he passed us to quit the building, exclaimed, "By Jove, I have had enough of it, let me get out, they won't catch me entering their baths again in a hurry!" "What," said I, "don't you like it?" "Like it, indeed!" said he, "one glimpse is enough," and so the gallant young soldier beat a retreat.

We entered the first apartment, which, like all others in the building, was lighted from above, and could not be overlooked from without; this apartment, or hall, was divided both on the right and left into a number of compartments resembling so many stalls in a stable; the partitions were about the height of a man, and were made of matting or cloth. To each bather one of these spaces was assigned. The compartments were fitted with a bed or mattress on the floor, with coverings for the bather after his emergence from the hot inner chambers, there to lie and cool before quitting the building; during which time he could be supplied with coffee and a pipe at his pleasure.



A compartment being assigned to me, I began to undress, when my guide told me that "I must give him my watch and my money;" and when I hesitated, he said he would take care of them whilst I was in the bath; this part of the business did not quite meet my approval, seeing how easy it would be for him to decamp, and then where should I look for my Copt Christian, of whom I knew nothing? but being assured by an Englishman who was cooling in one of the beds that "it was all right," I complied, and my guide was particular in noting the amount of each kind of coin committed to his care.

When undressed, my guide wrapped a cloth around my waist in the manner of a kilt, a second he folded about my head like a turban, and a third he threw over my shoulders. A pair of high wooden clogs were then placed on my feet, and I was ready to be offered on the thermal shrine within.

I was now shown through a door into a marble-lined passage, and desired to go forward; this was easier said than done, for the marble was wet and slippery, and I slid about on my clogs as if I were upon ice. Having traversed this confined and close passage, I entered a second hall, intensely hot and full of steam, where at first I could scarcely breathe. Here the operations of



the baths were in full working, and had by no means an inviting appearance. It was this the young ensign got a glimpse of, and induced him to make so hasty an exit.

The first object that caught my eye was a fellow passenger stretched at full length on a marble slab encircling a fountain of both hot and cold water, and undergoing a vigorous rubbing, scrubbing, and shampooing at the hands of a blind Egyptian, who rolled him over and over, and pulled him about as if he had been a dead rather than a living man.

Scarcely had I entered the hall when a black ill-favoured looking fellow, quite blind, extending his long skinny arms, took hold of me and placed me on the said marble slab; in a twinkling he removed my turban and shoulder cloth, leaving but the one around my waist, for which the only necessity was the presence of my fellow victims, the attendants being all blind. He then began rubbing me all over with his hands, covered with hair gloves; it was said the gloves were made of camel's skin, if so, the hair of that animal much more resembles horse hair *in softness* than I had previously supposed. After a time he took from a basin of frothy matter, probably soap, what resembled the head of a small mop, and gave me a thorough lathering; my eyes,



ENGLAND TO CALCUTTA.

CSL

mouth, ears, and nostrils were filled with it; this was succeeded by a rubbing, then a drenching with hot water, then soap rub and drench again. This was followed by a refined operation; he ran his fingers along the sinews of my body, and apparently attempted to break my back and dislocate my limbs; I heard my joints crack under the infliction; I was about to plead for quarter, when, alas! my mouth and eyes were filled with soap as soon as they were opened, and therefore submission was the only alternative.

When the blind ogre considered that all that was needful had been done on the marble slab, I was passed into a small adjoining room, which was still hotter, and more densely filled with steam; in this room was a tank filled with water apparently not greatly removed from the boiling-point; in this trough, or bath, for it was up to a man's shoulder in depth, I found two of my fellow passengers. "Come in here," said they, "you will find it precious hot at first;" and I truly found it as they said; the water appeared to be scalding, and I whoo-oo-ood most lustily, to the mirth of my friends, who had recently done the same. In a little time this intense sensation of heat began to subside, and I became tolerably reconciled to this really hot bath.

From the cauldron room, as it might be called,



I was conducted across the marble slab hall to another small apartment ; here I was seated in front of a double stream or jet of water, one hot, the other cold ; another blind attendant presided here, and poured over my head alternately a bowl of the hot and then of the cold water, thoroughly rinsing me ; and this was repeated many times, and therewith the aqueous operations of the Turkish bath terminated.

My wooden clogs being replaced, and the turban and shoulder cloths thrown over me, I was passed out of the door, where my guide was awaiting my return ; he led me through the passage to the outer apartment, and when dried I went to bed to lie and cool before quitting the building ; he offered me coffee and a pipe, the former only of which I partook ; and as soon as it was prudent once more emerged into the street, and mounting my donkey rode off to the hotel to breakfast. And it was really surprising how active and young I appeared to feel, and I concluded that however disagreeable the operation of a Turkish bath really was, there was much good resulting from it.

After breakfast we rode out on a tour of inspection ; our first visit was to the citadel, from the summit of which a very magnificent view is obtained. There was the noble river Nile with



numerous villages on its banks, the distant Pyramids in the desert, which reaches almost to the city walls ; all the distant objects being brilliantly distinct, owing to the clearness of the atmosphere. And close at hand the charmingly picturesque city was before us, with its romantic buildings interspersed with gardens, and its mosques with their slender minarets.

Within the citadel was one of the residences of the Viceroy, or Pasha, as he was always called by his subjects, and also the courts of law and other offices, to which we had no access. A new building was here rising, intended, it was said, to be a mosque of surprising magnificence, and was being erected by the Pasha. Here also was pointed out to us the site of the fearful leap taken by one of the Mamelukes, the only one who escaped, when that splendid body of cavalry were treacherously slaughtered in the inner court of the citadel, on the 1st of March, 1811 ; a remarkable occurrence, worthy of a short notice in this place.

The Mamelukes had been in a great degree the means by which Mehemet Ali had raised himself to the Viceroyalty, but, subsequently finding them dangerous to his power, he resolved upon their destruction, which he effected at a single blow. They were invited to a conference upon the sub-



ject of the expedition he was ordered by the Sultan of Turkey (his nominal master) to undertake against the Wahabees, a powerful sect in Arabia, who in the preceding year (1810) had taken violent possession of the Holy Cities of Mecca and Medina, and had plundered the caravan in the desert.

This conference was to be attended with festivity, and the Mamelukes came splendidly equipped and mounted. They rode proudly into the area within the citadel, and in an instant the entrance was closed behind them; they suspected treachery, but it was too late, volley after volley was fired upon them from the ramparts above by a previously concealed soldiery, whose orders were to spare none, and all of them, with one exception only, perished. That one in the moment of desperation riding over the heap of slain, leaped his charger up the lofty wall, sprang upon the battlement, and thence over the other side; 'twas a fearful height, his horse was killed, but he miraculously escaped to a mosque, where he found refuge and safety until he could regain his native desert.*

* Four hundred and seventy Mamelukes were thus killed within the citadel, and one thousand two hundred more were destroyed in the country a short time afterwards. The Wahabees were subdued in the year 1816.



Returning from this digression, we were shown a building containing the Pasha's lions; there were but three or four of them, one (a male) was perhaps the noblest animal of the species I had ever seen; they were all in fine condition, as might be expected from being in their native climate. We then visited what is called Joseph's Well, but it is not supposed that the son of Israel had anything to do with it; this is a well of great depth, from whence the water is raised in earthen pots attached in great numbers, which being passed over rollers, are then worked by animal power.

That humiliating scene, the Slave Market, also received a visit from us; here were a number of children playing together, apparently regardless of the fact that they were captives. Two women from the interior of Africa were brought forward for my inspection; they were very dark, had fine eyes, and were far from being ugly, they were not properly negresses, being deficient in some of the peculiar characteristics of that race, and were better looking; from replies I obtained from my questions, I supposed them to be from Nubia or Abyssinia. They looked intently at me as if scrutinising the disposition of a person likely to become their possessor. They were partially covered with a dirty cloth, which their vendor, as I supposed him to be, was



about to remove, but which I forbade; poor creatures, my heart ached for them; I placed some money in their hands, which they evidently did not understand, for their stare was one of vacant surprise, and I turned to leave the place. As I was doing so, a captive boy seized me by the arm, and looking up in my face spoke with great earnestness, as if beseeching me to become his protector. I longed to understand what he said, but neither my Copt Christian guide nor the vendor would inform me, but appeared desirous to hasten my departure; it was altogether a sadly depressing scene.

We entered several mosques, one of them was the Sultan Hassan's; they are generally beautiful structures, but much neglected as to repairs. It is not permitted that any should tread these sacred floors except with uncovered feet, the contact of leather with the pavement being a pollution of the holy place; this regulation would exclude most European visitors, but the power of backshish is great here, as elsewhere, and therefore the custodian, for a consideration, gets over the difficulty, by providing slippers made of straw to put over the infidel's boots, and thus contamination is prevented and his coffers replenished at the same time.

The streets of Cairo, as in most Eastern towns,



are very narrow, and some are covered over at a considerable height, so as to almost entirely exclude the rays of the sun. The shops have no fronts, and the goods are arranged around the sides of the interior, in the midst of which the owner is mostly seated crossed-legged and smoking his pipe. Many of the houses have been fine, if not noble buildings; here are picturesque gables, there latticed oriel windows; but all is old, faded, and neglected, covered with dust and cobwebs, and much of it in a dilapidated state, no repairing seems to be done, and no decorations renewed. The crowds in the streets are as picturesque as the buildings, and altogether with the strong lights and shadows which here prevail, make most interesting pictures when you get into a proper situation to view them.

The throng of people and animals in the narrow thoroughfares was curious in the extreme, and the picture would lose much of its interest if they were absent. There were droves of donkeys carrying skins of water. Camels laden with merchandise, strutting in a very stately fashion, with their heads erect, and likely to trample the foot passengers down unless they got out of the way, which was not always easy to be done, the crowd of people and animals being so great. Groups of veiled ladies on donkeys, with their



attendants holding on at the crupper, shouting for the way to be cleared, and beating off the lingerers with a stick or whip. The veil worn by the women is a curious object to look at, it appeared to be a mask with a long appendage hanging down in front, a good deal resembling the proboscis of an elephant. There were throngs of people gaily dressed, and others with scarcely any dress at all; hustle, bustle, pushing, and noise seemed to be the order of the day; walking through these streets or bazaars was difficult, and was rendered more so by the great numbers of pariah, or half-wild dogs, which were lying about in all directions, at the risk of being trodden upon. It may truly be said of Cairo, and indeed of most Eastern cities, that dogs and dirt prevail everywhere.

The time for our departure from Cairo was drawing near; we therefore returned to our hotel to dine before starting, and to provide ourselves with green veils to wear whilst crossing the desert.



CHAPTER VII.

THE DESERT

AT about 4 P.M. on the 7th of August, we quitted Cairo to cross the desert to Suez. We travelled in light vans resembling small omnibuses, open at the sides, mounted on springs and very high wheels, and intended to carry six persons, when rather crowded. Four half-wild Arab horses were harnessed to each van, which gave a promise of good speed, and we were not disappointed, barring the delays occasioned by accidents. The vans travelled three or four in company, so that assistance might be at hand whenever necessary; such a regulation was good, but was frequently rendered nugatory by their getting too far apart from each other; as we experienced during our journey.

As soon as we got clear of the city, we entered upon the desert, and away our horses galloped at a furious pace. There was then no made road between Cairo and Suez, the route being a mere track, but it could not be missed by any traveller, as it was well denoted by the skeletons of camels



which had sank with fatigue and been left to die ; and many were the heaps of stones which covered the remains of man, who in like manner had perished on the way. It was as nature had left it, strewn with boulders and projecting ends of rock. Over these, and every other obstacle we were driven without any diminution of speed, and no attempt seemingly was made to avoid them ; perhaps they were too numerous for that to be done, consequently we were bumped and jolted most distressingly, and thrown violently against each other.

Upon experiencing a more than usually violent concussion, our two leaders broke away from the carriage and flew like lightning over the desert, harnessed together as they were ; we instantly came to a stand, and the attendants went in pursuit of the horses. In a minute or two, the animals were at a great distance and looked like dark spots moving on the sandy plain. At length they wheeled about and went careering in another direction. Again they changed their course, but this time came towards us ; and after having had their frolic out, suffered themselves to be caught and again harnessed to the van. Off we flew once more after our companions, whom we overtook at the next station for changing horses.



ENGLAND TO CALCUTTA.

CSL

There were several stations for changing horses between Cairo and Suez, three of them being also appropriated to supply refreshment to the travellers; we partook of tea in the evening, supper at the central station about midnight, and breakfast at another about eight o'clock in the morning.

After a glorious sunset, and the brief twilight had passed away, a splendid star-light night followed. The absence of moisture from the atmosphere in this dry climate left a clear azure sky, through which appeared a brilliancy of stellar illumination I probably had never before witnessed, and, there being no moon present to pale their light, the stars shone with intense lustre.

In the course of the night we experienced another delay, the result of an accident, which caused us to arrive at the central station some time after our companions. Our two wheelers had fallen in such a manner that they could not rise without first being released from the carriage, and its weight removed from upon them. We all, therefore, had to alight, and the gentlemen were obliged to assist in extricating the horses; some temporary repairs had then to be made to the harness, and fully an hour elapsed before we could again proceed. During this time we were standing on the open desert gazing upon and admiring the glorious canopy overhead.



At the central station some curiosities were exhibited for sale. They consisted of fossil shells, a mummy case, and a good many small metal divinities, such as are to be seen in the British Museum; these were said to have been found in the case with the mummy, I, however, suspected that they were as likely to have been an importation from Birmingham, or some other manufacturing place, from whence many interesting localities are supplied with fictitious coins, medals, and other antiquities, to supply the craving of travellers for relics and curiosities.*

The stay at the central station might be prolonged, at the will of the passengers, to three or four hours, for the purpose of rest, which in our case was much needed by the lady passengers; here we were provided with supper. The substantial food for the principal meals was "Irish stew," that compound being the most convenient to prepare and keep hot at these desert stations until the arrival of the party, and I can bear

* This practice still prevails in the East, and especially at Jerusalem, where it has been lately carried on upon a large scale and most profitably. It is so everywhere, thus at Gibraltar Moorish curiosities and ornaments, notoriously of Birmingham make, can be easily bought; nor were we much more honest in England, as fossils very cleverly made up were sold about Folkestone before the author's journey to India, and even after he had exposed the practice.



testimony to the good quality of the preparation ; wine and beer could also be had if required.

Shortly after leaving the central station we passed a lonely tree, said to be the only one in the desert ; it was too dark for us to distinguish its botanical character, but it was a stunted specimen, and appeared to be about the size of those weather-beaten thorns we frequently see near the sea coast of England.

In due time the night passed away, but with the daylight the same cheerless prospect again presented itself, and the same furious driving and jolting continued without intermission ; but as the forenoon advanced and the heat of the sun began to tell upon the soil, we were gratified by witnessing the phenomenon of the "Mirage." At a distance before us we saw a small fort (I believe named "Adjerout," and apparently abandoned), looking as if it stood on a small islet surrounded by the water of an extensive lake ; as we advanced, the imaginary water kept receding from us at the same pace at which we were advancing ; presently we passed the spot, and there, of course, was no water. Subsequently, upon looking back, the same thing again appeared, the fort was in the midst of the lake, and water appeared in almost every direction at a moderate distance off. This delusive



appearance was caused by the action of the sun upon the arid ground, which being thereby intensely heated, rarified the lower stratum of the air, and setting it in active motion, produced the above remarkable appearance, which has been called the "Mirage." It is recorded that the French Army during their invasion of Egypt suffered grievous disappointment, when, thirsty and wayworn, they found the element so much required, and apparently within their reach, tantalizingly recede before them.*

When we reached the last of the elevated ground on the desert route, we saw before us in the distance the Red Sea, some shipping thereon, and the small walled town of Suez upon the sea margin. We now passed a picturesque looking well, built like a tower or fort, having on its outside a large drinking trough, supplied with water from within. Camels and other animals were drinking or lying about, whilst their masters drew the water, or filled their water skins for conveyance to the town, it being from here that Suez was mostly, if not wholly, supplied with that

* It has been said that this appearance delayed the attack at the battle of Alexandria for some days and until the illusion was discovered. The phenomenon is directly due to refraction, and the object thus displayed may be many miles below the horizon.



ENGLAND TO CALCUTTA.

CSL

necessary fluid; this well I was told was called Birr. The remainder of the journey, being upon a descent, was passed rapidly over, and we entered the walled town of Suez.

By the time we had reached the end of our desert journey, we were all of us thickly dusted with fine sand; no visitors to Epsom or Ascot in dry weather could be in such a plight, it had permeated our clothes to the skin, a quantity of sand and small gravel was in our pockets, and all who had not taken the precaution to wear a veil, not merely over the face, but also the head and shoulders, had their eyes, nose, ears, and neck filled with it, to their no small discomfort.



CHAPTER VIII.

SUEZ TO ADEN.

SUEZ is a small, desolate-looking walled town, situated in lat. $30^{\circ} 2' N.$, and long. $32^{\circ} 28' E.$ Standing at the edge of the Red Sea, it has no suburbs, and no vegetation about it, and the desert reaches to its walls. The shore is flat, and so extends for a long way, the desert in fact extending to the margin of the water. The distant mountains have a fine effect, particularly that called "Gebel * Ataka," or the mount of deliverance, opposite the shore of the peninsula of Sinai. It was within this range that the Israelites, when fleeing from the land of Goshen, were hemmed in, with the sea before them, and the army of Pharaoh in pursuit behind them, and here was the spot, according to Arab tradition, where the

* Gebel, or Ghibel, an Arabic word so often used as a prefix, that the progress of the Moors in the course of their conquests in Europe and elsewhere, can be easily traced, its meaning is mountain, and it is found very commonly in Spain, in Italy, and even, though sparingly, in Switzerland. Gibraltar is a specimen, and a very remarkable one, of its use. See "Words and Places," 6th edition, Rev. Isaac Taylor. Macmillan and Co.



miraculous passage of the Red Sea by the Israelites took place, and where Pharoah and his army perished.* (Exodus chap. xiii, &c.)

At the wharf or landing-place there were a good many native boats and sailing craft of small dimensions lying close by, chiefly employed in taking passengers and goods to and from the shipping, which, from the shallowness of the

* This has been many times disputed, and the position of the crossing assigned elsewhere (see pp. 103-4) ; a more recent theory is that an arm of the Red Sea at one time communicated with the Bitter Lakes, which are much below its level, and supplied them with water, dependent for its depth not only upon the tide but also upon the state of the wind, so that whilst at times dry, at other times they became very deep ; these lakes the Israelites, quitting Egypt, are said to have crossed at low water, whilst a return of the tide, increased in force and amount by a change of wind, overwhelmed their enemies, following hard upon them in pursuit. This, if true, would be in itself a miraculous coincidence to say the least ; but I am not aware that the other conditions of the Scriptural narrative mentioned in this book exist near these lakes, and so the story must be passed over in favour of the one always received. The rise of water in the northern portions of the Red Sea is always most marked in the winter months, when southerly winds prevail ; also the fact that high tides prevail with certain winds is well known in this country, and it is very probable that the double tides occasionally seen in the upper reaches of the Thames are due to sudden shifts of wind, but no " wall of waters on the right hand and on the left " has ever been seen or known to be due to these causes.



water, necessarily lay several miles distant down the Red Sea. Very little business of any kind appeared to be doing, either on the wharf or in the town, judging from the almost total absence of bustle and noise, which in the East is mostly called into requisition upon very trifling occasions. The Red Sea is under tidal influence, of which some of our party were not previously aware, and a difference of level in the water, amounting to four or five feet, occurred during our stay, but we could not learn the whole range of its rise and fall. In the Mediterranean Sea there are no tides, consequently the water surface is always at the same level.*

We obtained apartments in the upper floor of what was at that time the hotel; the approach to our quarters was by a steep ladder on the outside of the building, and upon the whole we were pretty comfortable, or so it appeared to us after the manner in which we had recently been roughing it. This place was at that time the only public accommodation Suez afforded, for the large barrack-looking building, intended for a hotel, was not yet occupied, but was in full activity on my subsequent visit five years afterwards.

* A difference of eighteen inches or more is often noticed at Malta and elsewhere, but this seems to be due to changes of wind or storms, and in no way to tides.



CSL

ENGLAND TO CALCUTTA.

Between three and four in the afternoon we sat down to dinner; it was a general dinner for such of the passengers as chose to partake, and there were a goodly number of us; but, behold, a swarm of flies, such as I never witnessed before or since, were waiting like ourselves for the covers to be removed, that they might contest with us the possession of the victuals; the table cloth was literally black with them, and in vain we attempted to buffet them away, for they returned to the charge again and again, until being weary we desisted. At length the dishes were uncovered, and we attempted to dine, and so did the flies; the sight was sickening, and we very soon beat a retreat in disgust, leaving the victory to the insects; fortunately our appetites were not very keen, for the heat was great, and the fatigue we had undergone so exhausting, that we had but little desire for animal food, and contented ourselves with biscuits.

The flies in Egypt were numerous beyond conception, and in many cases of sore eyes, the afflicted organ was closely covered with them to some thickness, and thus, I suspect, they frequently carry the disease from person to person. We also noticed and learned the reason why there were so many totally blind men in the country, and a still greater number with the left eye only; in the



former case it was attributed to ophthalmia, and the latter to the men themselves, who destroy the sight of the right eye, to render themselves incapable of serving as soldiers, the conscription for the army being cruelly severe in their country. To render themselves ineligible for conscription, great numbers of men had also removed the forefinger from their right hand, and some had operated upon both hands.

Towards evening (Friday, August 8th), it was announced that the ship was ready for the reception of the passengers, and a general move was made to get on board, that we might again enjoy the advantages of a comfortable bed and clean sheets, to which for the last few days we had been strangers. We embarked in a native sailing boat, with a good breeze blowing, and after a few miles of sailing reached the "Hindustan," where we were courteously received by the Captain, who was waiting at the gangway to welcome us.

The "Hindustan" was a much finer ship than the "Great Liverpool," which we had quitted at Alexandria; she was commanded by Captain Moresby, formerly of the East India Company's Maritime Service, an able seaman, and a first-rate marine surveyor; his splendid survey and chart of the Red Sea bears full testimony to that fact.



On board this ship we found Mr. Lovell, serving as the second officer, whose family we were acquainted with in England, and to whom I was the bearer of some small articles from his friends at home.

We were unexpectedly detained at our anchorage until about one o'clock A.M. of the following Monday, a delay occasioned, we were informed, by the straying of a dromedary in the desert, with its burden, part of the mail, the whole of which was transported across the desert on these animals. The second day of our sojourn on board was Sunday, and the place where the ship lay, was that fixed upon by native tradition as the spot where Moses miraculously led the children of Israel through the sea to the wilderness of Mount Sinai. On the eastern shore, but a little more to the northward, there was a cluster of palm trees, the only verdant spot to be seen, at which place there is a well, called the "Well of Moses," but why so called I did not learn.

Tradition in the East, especially amongst the Arabs, is well known to be worthy of respect, and in many cases has been considered worthy of belief. During the time we remained at anchor, we thought much upon the subject of the miraculous passage, and were forcibly struck with the resemblance of the country to that described as the scene of the



event, in the 14th chapter of the book of Exodus ; for the valley through which the Israelites are said to have passed, and which was then before us, was singularly similar to the Biblical description ; they were hemmed in by a mountain on their right, and another upon their left hand, and the sea was before them, having a width of about eight miles, and the greatest depth about one hundred and eighty feet. Well might the Egyptians have imagined, as described in the third verse of the said chapter, "They are entangled in the land, the wilderness hath shut them in," and Pharoah expected they would become an easy prey ; and so it would have happened but for the miraculous interposition of the Almighty.

This day (Sunday) a discussion took place between one of the passengers, an old naval lieutenant, and myself, regarding the miraculous passage of the Israelites ; he dogmatically asserting that the passage took place in the narrow part of the sea, above the town of Suez, which was there fordable ; a goodly number of our passengers soon collected around us, and took considerable interest in the question. Having obtained from him an admission that he believed the Scriptures to be true, I proceeded to show, that being *true*, they must be *true* altogether, not



true in one part and untrue in another, the Bible must be believed in its entirety, or not believed at all; and the Bible being true, the account of the miraculous passage must be true also; now that account states the sea to have been heaped up like a wall on either hand for the passage of the Israelites; therefore fordable water would not fulfil the conditions of the case, as deep water is clearly implied throughout, even in the song of triumph after the deliverance; therefore the passage did not take place above Suez. After much had been said on both sides, it was generally admitted by those present, that the spot where the ship was then lying satisfied all the conditions of the case, and moreover, being the spot denoted by tradition, was in all probability the site of the miracle.

August 11th. The "Hindustan" got under weigh at one A.M., and made her course down the Red Sea. Aden was to be the next halting place. The country on either side of us was truly a desert, of verdure there appeared to be none, and the mountains and level tracts presented the same monotonous fawn colour. Upon our left was the Peninsula of Sinai, and the Captain, who as before stated, had surveyed the Red Sea, was well acquainted with every remarkable spot in sight,



pointed out Mounts Sinai and Horeb,* which appeared to be two summits upon one mountain, and took some trouble to explain to us various other localities with which he was familiar, thus making this part of our passage very agreeable.

At about the twenty-eighth degree of north latitude, we steamed through the Straits of Jubal, and subsequently passed Ras Mahomed, where the Gulf of Suez terminates; shortly after this we crossed the entrance to the Gulf of Akabah, which bounds the Sinaitic peninsula on the east. The Red Sea divides at Ras Mahomed the southern point of the said peninsula into two arms or gulfs, the western one leading to Suez, about one hundred and sixty-seven miles in length, and thirty at its greatest breadth. The eastern gulf leads to Akabah, a town which stands on the site of the ancient Elath. It was up this gulf that part of the commerce of the East was carried prior to the rise of Alexandria, and the adoption of the route through Egypt. Its waters carried the fleets of Solomon, when conveying the gold of Ophir to his dominions, and must have been a

* The positions so long assigned to Mounts Sinai and Horeb have been disputed by the late Dr. Beke, who made some investigations in order to clear up his doubts, but, I believe, had arrived at no definite results up to the time of his death.



rival channel of commerce to the route through Mesopotamia and the Persian Gulf.

August 12th. The only record in my diary this day was that the "weather was very hot and close;" this great heat increased daily until we quitted the Red Sea. To us, who had so recently quitted Europe for the first time, the heat was insufferable, and some of the less robust of the passengers began to despair of living through this fiery passage.*

On the 13th, a pretty bird called the "Hoopoe,"† alighted on the rigging of our ship, as if to rest during its flight across the sea; we were then out of sight of land. This bird is occasionally seen

* Steam-ships passing through the Red Sea with a light favourable breeze have been obliged to stop and place themselves broadside to the wind to give relief to their passengers, whose position had become alarming because of the heat. A former Bishop of Calcutta, Dr. Wilson, mentioned in the first pages of this narrative, would not venture a return journey by this route, but chose rather the longer voyage in one of Messrs. Green's ships. Going round the Cape, the writer of these notes barely found the heat greater than 84° to 86° Fahrenheit in the tropics, but he did not pass through the Mozambique Channel.

† Hoopoes are of the family Upupidæ, of which there are two principal varieties, an European and a tropical one; the former visits northern Europe in summer, and winters in North Africa, so that it was doubtless a specimen of the latter class the author mentions as having been seen by him in India.



in the south-west of England during the height of summer, and I afterwards saw it frequently in India. We also saw large tracts of the sea covered with either a floating weed, or animalculæ of a reddish colour, from which some of our passengers inferred that the red appearance it gave to the water might have originated the name of the "Red Sea;" but I am inclined to believe that the name was derived from Edom (or Esau) as it was formerly called the Idumean Sea, or Sea of Edom, which means "red," hence it became the "Red Sea."*

On the 14th, in the early part of the day, we experienced some rough weather, and in the afternoon great clouds of fine sand were blown from the distant shore, and largely deposited on the ship. On this day also many locusts alighted on the ship, and were taken captive. The next day, the 15th, the sky became overcast; these were almost the first clouds we had seen since leaving England; some light rain fell in the evening, and in the far east a deal of lightning appeared. During the day we passed several volcanic islands, one of which it was stated had been in eruption a few years previously.

* The name "Red Sea" is also said to have been given it on account of the large quantities of pink coral found therein, and forming long oblong islands of the shape of the sea itself.

ENGLAND TO CALCUTTA.

On the 16th of August, at about six o'clock in the morning, we passed through the Straits of Bab-el-Mandeb (meaning the gate of affliction or of tears) from the Red into the Arabian Sea, the thermometer, which had stood the preceding night at 95° in my cabin, sank to 89° as we were approaching these celebrated straits, and by eleven o'clock in the forenoon, when we were fairly in the Arabian Sea, had got down to 80° . Thus the passage down the Red Sea, one thousand two hundred and thirty miles, occupied about five days.

It has been stated that during our passage down the Red Sea we found the heat to be very oppressive, fortunately we had a thermometer in our cabin, and the following observations and remarks were recorded in my diary:—

August 12th	..	..	87°	all night.
„ 13th	..	..	90	„
„ 14th	..	..	91	„
„ 15th	..	..	95	„ with very little air stirring.

Upon my subsequent return to Europe in 1850, the thermometer in my cabin during the passage up the Red Sea, denoted the following temperatures:—



ENGLAND TO CALCUTTA.

CSL
109

1850.	October 1st	..	87° at 6 A.M., the sea being 92°.
"	" "	..	92° at 7½ A.M.
"	" 2nd	..	92.
"	" 3rd	..	93.

The total breadth of the Straits of Bab-el-Mandeb, the entrance to the Red Sea, is sixteen and a quarter miles from the Abyssinian shore to that of Arabia; this is divided into two passages by the Island or Perim. The most southerly passage is thirteen miles wide, but is not clear, for it is studded with numerous small islands called the Brothers. The northern, or lesser strait, is one and three quarters of a mile in breadth, and is a good navigable channel. The whole width, including the Island of Perim, is, as above stated, sixteen and a quarter miles. The lat. is 12° 30' N., and long. 43° 40' E. The Island of Perim is about four and a half miles long, by two broad, and looked very pretty from our ship, although it is rocky and barren; the surface rises considerably from the sea. The British occupied this island in 1801, during the French occupation of Egypt.*

* This island was deserted in 1801, and not again re-occupied by the British until 1867, when the progress of the Suez Canal directed attention to its situation and importance. The happy accident which led to our



CSL

ENGLAND TO CALCUTTA.

We reached Aden, a port on the Arabian coast, and cast anchor in the western harbour at 4 P.M., on the 16th of August.

re-occupation of this island, but a few days or hours before the arrival of a French frigate from Bombay with orders to take possession on behalf of the French nation, has been so recently described in print, that a mention of it is sufficient in this place. The incident, however, helps to bear out the belief that in all his policy, the third Napoleon wished to follow Napoleon the First.



CHAPTER IX.

ADEN* TO CEYLON.

It was on Saturday, the 16th of August, at about four o'clock in the afternoon, when we anchored at Aden. The Governor and the enterprising Lieutenant Waghorn†, the founder of the Overland Route to India, came on board immediately. As soon as possible I landed and proceeded towards the residence of Dr. Malcolmson, to deliver a small but valuable package entrusted to

* Aden was formerly called Eudaimon or the Prosperous. After the discovery of the Cape passage to India, the trade of Aden fell off, and Mocha rose in importance, because of its coffee trade, and only the trade in myrrh, gums, and aloes (socotrine) remained; now Aden is again the more important place, but probably only for a time, as a railway by the Euphrates Valley, or some other route, will be made before long.

† The Overland Route laid down by the late Lieutenant Waghorn, was not precisely the one described in these pages, for after leaving Alexandria he travelled home by Trieste, and through Germany, doing the journey from Bombay to London within a month. Lieutenant Waghorn died in 1850, and, I believe, unpromoted. The completion of the St. Gothard tunnel will probably realise his ideas completely.



my care. I met Mrs. Malcolmson on horseback, who, understanding that my wife was on board the ship, accompanied me back, and pressed her much to go on shore and remain a guest at her house until the ship took her departure the next afternoon; unfortunately she was unwilling to do so, for by remaining on board we spent the most distressing night we had as yet experienced during our journey. The ship was coaling the whole night, the weather was intensely hot, and the cabins were almost hermetically sealed to keep out the coal dust, but in vain; we were nearly stifled, and with the combined effects of heat and coal dust, by the morning, when we emerged from this truly "Black Hole," we pretty much resembled chimney sweeps.

The next morning Doctor Malcolmson came on board, and invited me to accompany him on horseback to view the place; once more on horseback, away I galloped with my friend. We visited the ancient Turkish fortifications, as well as the modern English ones, and at length rode into what was once an enormous volcanic crater, where were situated the cantonments. Proceeding to the mess room, my friend introduced me to the officers of Her Majesty's 94th Regiment, who were at breakfast, and gave me a hearty welcome. I communicated the latest news from Europe, and



they gave me some interesting information respecting this place, and also of India, where their regiment had been stationed for a long time.

The Peninsula of Aden is situated in lat. $12^{\circ} 46' N.$, and long. $45^{\circ} 10' E.$ It is principally composed of rocks of igneous origin, rising to one thousand seven hundred and seventy-six feet at the highest point. The rock appeared to be intersected to a great extent by basaltic dykes, which have forced their way to the surface whilst in a state of fusion, and altogether the place bears unmistakable signs of volcanic origin, and the amphitheatre-like area wherein the cantonments are situated is unquestionably the bed of the crater of an extinct volcano.

At the time of my visit Aden was a poor place but appeared to have improved considerably since the establishment of the Overland Route to India, now being one of the principal halting places for the ships on the Indian side of Egypt; but it had been formerly one of the foremost commercial marts in the East before that commerce found its way round the Cape of Good Hope. I witnessed long strings of camels bringing from the mainland of Arabia fruits and vegetables for the supply of the inhabitants, particularly grapes of a delicious quality, said to come in large quantities



CSL

ENGLAND TO CALCUTTA.

at this period of the year; besides which, I fancy the chief trade with the Arabs is for coffee and gums. The place has two harbours, east and west, thereby ensuring shelter for coasting vessels at all periods of the year, one harbour being always available, let the wind and weather be what it may.

In 1513 the Arab possessors of the place repulsed an attempt at conquest made by Albuquerque, a Portuguese Governor of India, a man who had contributed more than any other to establish the power of Portugal in that country. They, however, submitted to the Turks under Soleiman the Magnificent, in 1539, who there-upon fortified the place. Some of the towers erected by the Turks on the pinnacles of the mountain are still in existence, and also cisterns for the preservation of water, and the remains of an aqueduct to supply them; there were no wells or any natural water springs in the place, as might be expected from the nature of the rock.

When the time came that it was imperatively necessary that Great Britain should establish the overland route through Egypt to its Eastern Empire in India, possession of certain points on the route had to be secured for the establishment of depôts, where the ships could call for fresh supplies of coal and other necessities, as well as



diverging points for the branch traffic; and these depôts required to be as nearly equidistant from each other as possible. On the European side of Egypt the possession of Gibraltar and of Malta was sufficient for the purpose; Alexandria and Suez were as a matter of course fixed points, and Point-de-Galle in Ceylon, was eligible for the purpose. But a station was wanting in the Arabian Sea, not far from the Straits of Bab-el-Mandeb, to conveniently divide into two parts the distance between Suez and Ceylon; as well as to permit the Bombay traffic to diverge from the main route to Bengal.

A settlement was first attempted on the Island of Socotra, but not finding the place to answer so well as could be wished, the attention of the authorities was turned to Aden on the south coast of Arabia, which being found more suitable for the purpose, negotiations were opened with the Arab chieftain who claimed sovereignty over the place, and a sum of money was paid to him for it; but a temporary inconvenience afterwards arose from another chieftain setting up a rival claim, which, however, was satisfactorily adjusted, and Aden became British property in 1840.

The time for our departure having arrived, we left Aden on the Sunday afternoon, August 17th, about four o'clock, and proceeded towards Ceylon.

It came on to blow very hard in the evening, and continued to do so until the 21st of the month, the sea ran very high, and many of the passengers again became unwell. On the night of the 19th, the sea was tremendous, and cross seas struck the ship many times with such violence that she staggered under the blows and appeared to us uninitiated people as if she would go to pieces or founder at once, and considerable anxiety prevailed amongst the passengers; however no harm happened to us.

During the day of the 19th we passed Cape Guardafui, the most eastern point of Africa, a very dreary-looking spot. From the Straits of Bab-el-Mandeb to this Cape the Arabian Sea is comparatively narrow, averaging about two hundred miles across, and therefore influenced in temperature by the heated air from either side; the thermometer previously to our passing the Cape stood at 93° , and in an hour afterwards it had fallen to 73° ; we had then passed from the Arabian Sea to the Indian Ocean. Two such sudden and great changes as we had now experienced within three days, namely of 15° in passing Bab-el-Mandeb, and 20° in passing Guardafui, were extremely likely to have occasioned great personal inconvenience and risk.

After passing Cape Guardafui, we left the



Island of Socotra to the eastward, or on our left hand, but I did not see it, the storm having driven me to the cabin at the time; but on returning to Europe five years later, we passed it on the other side a few miles to the eastward, and had a good look at it. Like most Arabian scenery, it had no very inviting appearance; there was a lofty chain of apparently barren mountains inland, which Captain Lovell stated to be nearly five thousand feet high, with one or more parallel lower ranges, and nearer the sea coast foliage was distinctly visible. The latitude of the island is about $12^{\circ} 39' N.$, and the longitude $54^{\circ} 6' E.$

During the gale on the 20th, I put my head out at the cabin port to look upon the wild grandeur of the disturbed ocean; the water was not much below the same level at the moment, when, to my astonishment, apparently within a few feet of my face, stood erect the enormous dorsal fin of some giant of the deep; startled with so unexpected an apparition, I drew in my head in double quick time, to the amusement of my dear wife, anxious and alarmed as she then was.

The next day, the 21st, the wind moderated, and the sea gradually calmed down, and continued smooth for several days. During this time we were gratified with a very pretty sight, shoals of



flying fish were darting out of the water and leaving their native element for a distance of twenty or thirty yards, resembling a flight of small birds, which I at first took them to be; when they were exhausted or when their wings got dry, they suddenly dropped altogether into the sea, each making a splash, and appearing as if a quantity of pebbles had been thrown into the water. These poor creatures were supposed to be flying from the pursuit of their natural enemy, the dolphin. One of them fell on board our ship, when I saw that their so-called wings was only a prolongation of the pectoral fins; this fish I caused to be suspended in the rigging to dry, intending to preserve it, but one of the sailors, I expect, found it, and without inquiring to whom it belonged, doubtless appropriated it to his supper; they are said to be very palatable, and I hope that my flying fish did not disagree with him.

Before reaching Ceylon, we passed through the group of islands called the Maldives,* one of the earliest discoveries of the Portuguese in this part of the world; they consist of a coral chain of innumerable isles and reefs, the whole being a

* These are coral islands, and are about 1,000 in number; all subject to the Government of Ceylon.



few hundred miles in length, lying in a direction nearly north and south, and but about fifty miles in breadth, and within about four hundred and fifty miles from the mainland of India. These islands are very flat, and but little elevated above the sea, so that all that was visible at the distance we were from them was a tract of low land, bearing a goodly number of cocoa nut trees. The cowry

hell is obtained here in great quantities, they are fished up by a bait and line and left on shore until the animal within is dead; when cleaned they are exported to India and Africa, and there used to represent money of an extremely small denomination. I found in Calcutta that about one hundred and twenty of them were considered equal to one pice, or the fourth part of three half-pence English money.

On the 26th of August, the Captain informed us that the low lands of the shore of the Island of Ceylon would be visible about our dinner-time accordingly we were on the look-out, and at the time named it was made out by the cocoa nut trees with which the shore abounds. When we returned to the deck after our meal, we were rapidly nearing Point-de-Galle, the harbour we were to enter to deliver our mails, to re-coal, and to part with such of our passengers as were bound to China, Singapore, &c., who, with the



CSL

ENGLAND TO CALCUTTA.

mails for those parts, were to proceed in the steam ship "Braganza," there awaiting our arrival for that purpose. We reached our anchorage at about six o'clock in the evening.



CHAPTER X.

CEYLON TO MADRAS.

It was about six o'clock in the evening when we entered the harbour of Point-de-Galle, near the southern extremity of the Island of Ceylon. It is a natural harbour,* surrounded by lofty hills covered with vegetation, and all around the harbour and also within it, there are craggy rocks over which the sea breaks with violence when it is all rough, as it was on the occasion of our visit. It is really a pleasant spot, and appeared especially so to us after seeing nothing but sea, and the dreary desert of Egypt and Arabia for so long a time.

No sooner had the ship reached her berth, than a good number of natives scrambled on board from canoes which had brought them alongside; some of them were dhobies or washermen, seeking to be entrusted with the linen of the passengers

* But a very dangerous one, and it would seem from several shipwrecks which have taken place there, that a few minutes' inattention are sufficient to allow a vessel to drift upon the rocks.



ENGLAND TO CALCUTTA.

CSL

to wash, promising faithfully that it should be returned properly got up before the ship again sailed the following day. Others were lapidaries and jewellers, bringing their valuable property to dispose of amongst the passengers; these consisted of pretended gold chains, rings, and such like articles, and also what they represented to be precious stones, found in great plenty on the island, and many of the passengers became customers.

A similar scene is enacted upon the arrival of every passenger ship; and on my last visit to this port on my way home in 1850, I witnessed it in great perfection; some of these jewellers had brought for sale what they called gold Trichinopoly chains for ladies' wear, apparently of exquisite workmanship. One was bought for the sum of three pounds; the vendors pressed hard for customers, and at length sold two more for the same money that they had previously taken for a single one; this at least was a suspicious circumstance, and it was afterwards amusing to see how the price dropped as purchasers flagged during the time the ship remained in the port, not quite a whole day. At length, just before we got under weigh, one of these jewellers who had during the day been urgent with me to become a purchaser, hearing the cry



“now for shore,” actually at the last moment offered me one of these valuable chains for an old coat or an old umbrella. I however, had neither the one nor the other to spare, or I would have made an exchange in order to give myself the laugh at the other purchasers, who had, as might be expected, bought worthless articles at high prices; and I suspect the buyers of the precious stones subsequently found that they had been in like manner *done*, and placed in possession of pieces of coloured glass only.

Money changers also beset us; they were very desirous of purchasing sovereigns, offering more money for the George and Dragon sovereigns than for others, because, as they stated, they were made of gold a little finer in quality.

The evening shades were closing around us when we landed, and upon our proceeding to the hotel, we were discomforted by learning that the house was already filled, and that there was no room for us. They could not, or they would not take the trouble to obtain a bedroom for us elsewhere, in which case we might have boarded in the hotel. Several of our fellow passengers, and among them a Mr. and Mrs. Wilson, were circumstanced in like manner; there was another hotel, but we were told that it was a place wholly unfit for our reception, being both bad and dirty. After



ENGLAND TO CALCUTTA.

CSL

some further endeavours to procure accommodation, we resolved, although unwillingly, to return to the ship for the night, a prospect anything but cheering after the night of suffocation, stewing, and coal dust, we had experienced at Aden whilst the ship was coaling at that port.

To carry out our intentions we returned to the water-side, where we found at the landing place but one boat only and that we all entered, the black fellows of boatmen appeared delighted with this unexpected fare; but before they pushed off one of them entered the boat and demanded money for the work they were about to perform, and a very exorbitant sum he asked. We demurred, and said we would pay whatever sum the officers of the ship should name as soon as we were on board, this was refused and an altercation ensued. Blackee and his mates thought they had us in their net, and knowing how we were circumstanced, expected to make a harvest of us; resolving to disappoint them, we determined to get on shore and make a further attempt to obtain lodgings, but the fellows actually resisted our landing unless we gave them "backshish," which Mr. Wilson liberally distributed with his "fists,"* and sent the crew flying.

* Bamboo backshish, which people are often obliged to threaten when hard pressed.



When again on shore, a decent looking half-caste young man pressed through the crowd (for the row we had got into had drawn together a crowd of natives all ready to take sides with the boatmen in the event of a battle), and assured me that comfortable accommodation could be had at the hotel which had previously been represented to us as bad. "Any port in a storm," said we, and away we marched, escorted by our new acquaintance, and followed by the crowd, to the "Royal Hotel," kept by one Samuel Barton (also a half-caste), at 47, Flag Street. Fortunately the place proved better than we had expected, and here we stayed till the ship left Ceylon, the next afternoon.

Having secured bed accommodation, we held a discussion as to how we should spend the following morning, so as to see as much as possible of the locality in the short time we had to remain; our host recommended a visit to the Cinnamon Gardens, and we gave directions for the necessary conveyances to be ready immediately after breakfast, and then retired for the night.

Soon after reaching the hotel, I had, upon the recommendation of the landlady, engaged an ayah (ladies' maid) to attend upon my wife during our stay; she was very dark skinned, rather old, and at first sight not easily distin-



guished from the other sex, for the men here are generally slim in figure, and from their scanty dress, and their hair being suffered to grow long, being collected in a knot behind, and there fastened with a comb exactly like the back hair of women, a mistake might readily have been made by strangers, especially in partial darkness. It was therefore not surprising that when the ayah presented herself in the bedroom to perform her duties, my wife darted out, and running to me said in alarm that a black man had entered the room, she not having previously seen the ayah; and when I returned to the room with her, and saw that the right person was there, she could not even then help asking me if I was sure that the person before her was a woman.

During the night the mosquitoes were very troublesome, so that we were glad to rise as soon as the dawn appeared, and walk out until breakfast time; here we saw for the first time an Indian street and Indian customs, which very nearly resembled what we afterwards became accustomed to in Bengal, with this difference however, that Point-de-Galle had the advantage in regard to cleanliness. The native houses, which are little better than huts, have no upper story, and are mostly built with bamboos covered with matting and plastered with clay or mud, the



roof being thatched with wide spreading palm leaves, these huts are built upon a low mound which raises the floor about two feet above the general level of the ground; the roof projects some distance from the external walls, and is supported by large bamboos in imitation of columns, thus forming a verandah, under which the tradespeople squat down surrounded by the wares they have for sale, such-like are most of their shops.

Our hotel was rather spacious, and had an upper story, and at the back a yard surrounded with stables and other out-buildings. In this yard, well stocked with poultry, was a majestic looking cock turkey, strutting about with all the apparent pride of that noble bird; to our surprise at dinner that afternoon this same bird graced our table; it was alive, killed, and cooked, and I may add eaten, all within a very few hours; the hotel keeper not having expected so much company had had recourse to the turkey to eke out the supply, and although he was not very tender he was done ample justice to, the forenoon ride having sharpened out appetites.

After breakfast we started for what was called the Cinnamon Gardens, situated at a distance of several miles from the town; its appearance disappointed us, the place looked like



a neglected plantation in a jungly district, there was so little appearance of careful cultivation. We could obtain so little information on the subject from our drivers and attendants, that we were half inclined to suspect that our Cinnamon Garden expedition was only a hoax.* Be that as it may, we were amply repaid by the delightful drive we had along the sea shore, skirted with magnificent cocoa nut trees, the sea actually washing their bases; and all about us the scenery was lovely, quite surpassing all our preconceived notions of tropical vegetation.

On our way back we visited a Buddhist temple, where we saw the false gods which the natives worship; this was the first idol temple we had ever entered, and we shuddered to think that with the beautiful natural objects by which we were surrounded, whereby the existence of an all wise and omnipotent Creator was proclaimed without intermission, man should close his senses to such evidence, and give worship and praise to the unmeaning tawdrily painted figures now before us, ascribing to them wisdom, power, and beneficence. My dear wife at once gave vent to

* The author's suspicions were probably justified, and he never reached the Cinnamon Gardens, for the time for stripping the bark extends from May to October, and he would surely have noticed the process.



her feelings by quoting the beautiful lines of Heber :—

“ What though the spicy breezes
Blow soft o’er Ceylon’s Isle,
Though every prospect pleases,
And nought but man is vile !
In vain with lavish kindness,
The gifts of God are strewn,
The heathen in his blindness,
Bows down to wood and stone.” *

Near the idol temple we saw, lying along the top of a temporary fence, a serpent basking in the sun, and most probably asleep. This was our first interview with the genus ophidia in a state of freedom ; we were close to it, and as it was evidently unconscious of our presence, were leisurely admiring its beauty, knowing that it would dart away if disturbed. At this moment we were joined by our fellow traveller, Mr. Etty, who

* It seems probable that the religion of Buddha, in its original condition, was very much more simple than it is in our time, and that its idolatry originated in excessive zeal and in acquired rather than in congenital “blindness.” The development of a religion has but too often meant the decay of its purity and simplicity, and in this respect Buddhism does not stand alone. There are some few Hindoos and Mahommedans in Ceylon, and also many Christians of modern date. Christianity was introduced here in the sixth century, and hence probably passed on to China.



instantly struck at the creature with a stick ; so rude a method of disturbing its slumbers caused it to dart off like lightning, no one saw which way it went, its disappearance was so sudden. We all regretted Mr. Etty's hasty proceeding, as we were not likely again to see a serpent under such favourable circumstances, there being no cause for apprehending personal danger from the creature.

This Mr. Etty, who proceeded in the "Braganza" that afternoon towards the East, had long been settled in Batavia ; he had just been to England to see his two brothers and other relatives for the last time. One of his brothers was in business in Lombard Street, and the other was the eminent painter ; this brother had made a pleasing allegorical picture commemorative of this probably final meeting of the brothers, and had given it to our worthy Batavian planter, who was bearing it away to his distant home, and I had the pleasure of taking care of it for him throughout the greater part of our journey, having more spacious cabin accommodation than himself.

The Island of Ceylon is situated south of the extreme point of the Peninsula of India, with a climate similar to that of the continent, from which it is separated by the Gulf of Manaar and Palk Strait. It was known to the ancients, and



its spices and other productions in very early times found their way to Europe either up the Red Sea, or by the caravan routes through Persia and Arabia.

The Portuguese, under Almeyda, came about the year 1505, and, after entering into treaties with the native rulers, got a footing on the island, and became masters of a large part of the country, chiefly bordering on the sea coast. They afterwards exercised much tyranny, and had many struggles with the natives, but never wholly reduced them to subjection. About 1602 the Dutch offered assistance to the natives against the Portuguese, who gladly received them as deliverers; and then followed innumerable contests between the combined natives and Dutch with the Portuguese, whose rule was finally put an end to in 1656. The Dutch ultimately became to a great extent masters of the island, until it was taken from them by the English in 1795, to whom it was ceded by Holland at the Treaty of Peace signed at Amiens in 1802.*

The Island of Ceylon lies between $5^{\circ} 54'$ and $9^{\circ} 50'$ north latitude, and 79° and $82^{\circ} 10'$ east longitude.

In the course of the afternoon of the 27th August,

* The island did not fully acknowledge our sovereignty until 1815, before which time we held the coast only, and some of the principal places.

we again went aboard our ship, and soon afterwards a goodly number of those who had hitherto been our fellow voyagers started for Singapore, Batavia, and China on board the "Braganza," one of the Peninsular and Oriental Company's steamers, which had been awaiting our arrival to convey the mails and passengers we had brought for those parts. We paid the usual marine parting compliment by loudly cheering the gallant ship as she passed towards the mouth of the harbour, which was duly returned by those on board.

We started at about 5 P.M., and shortly before getting under weigh, a number of dhobies, or washermen, brought on board the linen of those passengers who had entrusted them therewith on the previous day; all appeared to have been returned correctly, which was not always the case. I witnessed an amusing scene connected with this linen washing, upon my subsequent return voyage; we had three Americans on board, who had made themselves unpopular among the passengers by practising what they called "knowing dodges" upon them. These gentlemen had entrusted a dhoby with one hundred pieces of linen to wash, which blackie failed to return before our departure; but the moment we fairly got under weigh, he was seen emerging from behind a rock, and standing up in his canoe,



holding a nether garment, shouting, "Stop, stop, Massa's clothes." Our Yankee friends, with dismay depicted on their countenances, were on the look-out for the rascal, who well knew that a ship having Her Majesty's mails on board would not be stopped for any such purpose as the taking of passenger's linen on board, and I fear that our unpopular friends met with but little real sympathy in their misfortune.*

Having got clear of the island, we steamed up the Bay of Bengal for Madras, and during this part of our passage witnessed almost every evening a very grand display of distant lightning. The weather was extremely hot, although we had the benefit of the cooling influence of the open ocean; the sun was vertical on the 29th of August, when we were in latitude 9° 40' north.

Nowhere is lightning to be seen in greater perfection, or its effects more severely felt than in the East, and I cannot refrain from noticing in this place (although it be a digression) that during my subsequent residence in Calcutta, a storm of thunder, lightning, and rain occurred which will never be effaced from my memory; when, strange as it may appear, I *heard* the sound

* The dhobies are not always in the wrong, and the editor has seen them very freely "paid with the fore-topsail" at St. Helena.



ENGLAND TO CALCUTTA.

CSL

of the lightning for the first and last time in my life. This fearful storm happened in the night of the 19th of May, 1848, when a Mr. Grant, a Surveyor in the employ of the East Indian Railway Company, was struck dead in his tent on the Midan. A strange hissing sound accompanied the flashes, which followed each other with fearful rapidity; at first I thought it was occasioned by the wind, but there was little or no wind, and after a little time I became conscious of its real nature; it seemed to me that the sound was occasioned by the volume, as well as the velocity of the electric fluid displacing the air in its passage, in the same manner that a noise is made by rapidly switching a rattan by the hand. I have called it in my diary, written the next morning, "a hissing noise," but I well remember being dissatisfied with that definition, but could think of no better, neither have I been able to do so since, it being so difficult to make sound intelligible upon paper.

The next day I mentioned the fact to some of my friends, and found that several others had also heard it, but only one person who was conscious of ever having heard the *sound* of lightning before last night, and that was Captain Dallas, of the Military Board, who had heard it either at Penang or Singapore, I forget which. And I



consider that the alarm caused by the terrific thunder and lightning, of which my neighbourhood appeared to be in the centre, was the reason why the remarkable sound was not generally noticed.

One day during our passage from Ceylon to Madras, Captain Moresby, after taking his astronomical observations, told me that he found the place of the ship to be nearly fifty miles short of that he considered she was in; this he accounted for by the currents having acted against her progress with much greater force than he had expected. In this way, many ships have been wrecked on rocks supposed to be a great distance off, thus showing the importance of frequent astronomical observations to correct the dead reckoning, too often, I fear, "dead" enough.

Long before reaching the anchorage in Madras Roads, I was surprised by the apparition of a strange looking being alongside the ship, for I had not seen him approach; he was a black man, having a triangular or conical shaped cap fastened on his head; his only clothing being a strip of calico around his loins; he was apparently squatting upon what appeared to be a log of wood, of not many feet in length; the log was shaped something like a canoe. Upon this strange bark he had come a long distance



to meet our ship, to convey back any letters he could get entrusted to his care ; these he placed for security in his cap, which he temporarily removed for the purpose. His means of navigation was a double paddle, which he shifted from side to side with great rapidity, and which carried him surprisingly soon out of sight, as he returned to Madras with his letters. This man, or rather I believe the log which he navigated, is called a catamaran,* and it is not improbable that it was an object of this kind that was seen from a great distance by the crew of one of the early ships navigating these seas, whose superstition and fear led them to record that they had seen his Satanic majesty standing on the sea brandishing a stick.

The catamarans are very useful at Madras, where the landing is dangerous, from the heavy surf which breaks upon the shore ; they accompany the boats when landing passengers, and if any of them get upset these men are at hand to rescue the people from drowning or the sharks ; some of the catamaran men wear silver medals which they have received for peculiar courage in so doing, in addition to pecuniary rewards.

* To make a catamaran, three logs are generally used lashed together, the centre one being that from which the boatman works his vessel.



ENGLAND TO CALCUTTA.

CSL
137

The surf breaks with such violence on the shore that its roaring is heard a long distance off, and ordinary ships' boats could not live through it, and therefore a peculiarly constructed native craft well adapted to the service is employed. This is called a mussoolah boat, the planks of which are sewn together instead of being nailed, and thus not being rigid, the boat yields to the various strains it is subjected to, and, although occasionally upset, is not easily destroyed by the surf.

On the 30th of August we arrived off Madras, at 9.30 A.M. The weather was very hot, 87° in the shade; several sharks came about the ship, and a large number of kites hovered about, and darted down upon any offal thrown overboard.



CHAPTER XI.

MADRAS TO CALCUTTA.

WE remained in Madras Roads exactly twelve hours; some of the passengers went on shore during the time, and others left for good; the mussoolah boats were continually plying between the ship and the shore conveying merchandise and provisions; several also brought coal, but no great amount of that commodity was received on board, only sufficient to make up the requisite quantity (if it be supposed deficient) for the navigation of the ship to Calcutta. The weather was hot, and the thermometer stood at 87° in my cabin all the day.

We again got under weigh at half-past nine in the evening of the 30th of August, to perform the last stage of our journey. The following day we had some rain, and on the next morning at half-past seven, upon trying the temperature of the sea, we found it to be $84\frac{1}{2}^{\circ}$, whilst that of the air in the shade was 86° .*

* This is usually the case within the tropics, the temperature of the air and water being nearly equal at and soon



On the 2nd of September, early in the forenoon, we noticed a change in the appearance of the sea; it was no longer transparent, but had a tinge of dirty brown in its colour, and soon became decidedly turbid; it was therefore evident we were approaching the mouth of the River Hoogly, although yet a long distance off, not less than one hundred miles, perhaps much more. It was the rainy season in India, at which time the drainage of nearly all Bengal, from the Himalayas to the sea, surcharged with earthy matter, was poured into the Bay of Bengal by the innumerable mouths of the Ganges, of which the Hoogly, the river we were approaching, is the most westerly. This body of fresh water does not lose its turbid appearance, by depositing the earthy particles it holds in suspension, until after it has travelled far out to sea. The deposits of the river form fresh shoals and impediments to navigation, which shift their position continually.

The earthy matter or sand deposited in such great quantities in this river, and in the sea, at its mouth, does not lie transversely in the form of a bar, but owing to the set of the currents, in after sun-rise; however, the shock of the cold bath is not diminished by this fact, water being a better abductor of heat than air. The soundings made by H.M.S. "Porcupine" and "Challenger" show a very different state of things at greater depth.



CSL

ENGLAND TO CALCUTTA.

long and comparatively narrow ridges, leaving a series of channels from the main sea to the river; many of which are not navigable, and those that are so, being so very limited in breadth that a small deviation from the right course occasions the striking of the ship and endangers her safety; it is therefore a very difficult navigation from the sand heads to the river, and so indeed it is all the way up to Calcutta, a distance of about one hundred and twenty miles from the said sand heads; the river portion of this distance, one hundred miles, being still more difficult because of the shifting nature of the sand banks. About the sand heads there are constantly one or more brigs cruising, having pilots on board, ready to be transferred to the inward bound shipping to guide them in safety to Calcutta.

We reached the sand heads at ten o'clock in the evening of the 2nd of September, and received a pilot on board, but did not proceed further until daylight; in due course we passed the two floating light ships stationed between the sand heads and Middleton Point, on Saugor Island, the eastern side of the mouth of the river.

The first sight we obtained of Bengal excited a feeling of disappointment, our imaginations having misled us; it much resembled the flat coast



of Essex as seen from a distance at sea ; it abounds with what at first sight appears to be scrubby underwood, but which is in fact the jungle of the East, which on approaching Middleton Point (near which the navigable channel runs) may be seen extending eastward in the direction of Chittagong as far as the eye can reach. This tract of country contains the many mouths of the Ganges, and is the far-famed wilderness of the Soondurbunds, the abode of wild animals, serpents, and alligators.

The Island of Saugor, which is about twenty-five miles long, and about six in its greatest breadth, is much covered with jungle, being only partially cleared, and but sparingly inhabited. It is considered by the Hindoos a holy spot, where they yearly hold an idolatrous festival, which is much resorted to by them. It is also celebrated as being much infested with tigers, and I cannot refrain from relating the following anecdote, said to be strictly true. Upon the occasion of a great storm some years ago in the Bay of Bengal, the sea submerged much of the adjacent land, and Saugor Island in particular ; the few inhabitants took refuge in such buildings as were erected on the higher spots of the island, and in one of them where the people were thus collected, a noble tiger also entered to seek



shelter. The animal was cowed with fear and slunk into a corner and laid down, no doubt for the time harmless enough; but the still more alarmed inmates were unwilling to trust to the kind of recompense he might make when the storm and the waters should subside, and they shot the creature as he lay crouched and intimidated in the corner.

I will here observe that in general I believe the tiger is considered but a coward, he will rarely boldly face his enemy, until brought to bay, but slink about the margins of the jungle until he gets a favourable chance of leaping on his prey; and furthermore, if he misses the object at the first spring he will not always make a second, and when he does so, it is so flurried that he is likely to miss a second time, and when that happens he seldom makes a third attempt, but retreats in an apparently frightened manner.

Near the north end of Saugor Island, but on the opposite shores of the river, we passed the village of Kedgerree, and a lighthouse near at hand. In former days ships' letters and dispatches were landed here and forwarded by land to Calcutta. Near this part of the river is Auckland Island, which not many years ago was a shoal under water, but is now raised above



the surface by deposition from the river, and, although but just above the ordinary high water level, is covered with jungly vegetation.

A few miles further, on the east side of the river, we passed Diamond Harbour, once the anchorage of the large ships belonging to the East India Company, and then a site of considerable importance; there is a house, the residence of a person still called the harbour-master, who telegraphs to Calcutta the names of the ships as they pass the place. It is only twenty-eight miles by road to the city, but about fifty-five by water, owing to the winding course of the river.* In the next reach, we passed a small islet named by the pilots "Alligators' Island," it being a favourite resort of those monsters, and I have seen the largest specimens of this creature probably to be seen anywhere.

At and just beyond the next bend, we passed the mouths of the Roopnarain and Damoodah Rivers, whose waters pouring into the Hoogly at

* It was proposed to form a dock and harbour at this place, and Mr. Simms reported most strongly in its favour, chiefly because of its situation and the saving of time and danger to ships. The design was never carried out, and upon a re-consideration of the question, preference was given to Port Canning, to which a railway was made, but within a few years Port Canning and its railway were abandoned by Government, as an utterly unprofitable speculation.



right angles to the general stream, occasion by deposition, the dangerous and shifting shoal called the "James and Mary," on which so many ships have been lost.

Not far above the "James and Mary," Fultha is passed, at one time a hotel, where the residents of Calcutta came down for a change of air and of scene. At this place on the 28th of December, 1756, the army and the great Clive landed, when they came from Madras to rescue Calcutta from the tyrant Surajah Dowlah, the Nawab of Bengal.

They then marched towards Calcutta, and on their way attempted to take the Fort of Budge-Budge; but after a long and hard fight, both parties having had enough of it, were each, without the knowledge of the other, beating a retreat under cover of the approaching night, when at this moment a drunken sailor from Admiral Watson's fleet, which lay off the fort, climbed the earthen ramparts to see what was going on inside, as the walls appeared to him to be deserted; he thence saw the last of the retreating enemy quitting the place, and instantly waving his hat, shouted to the shipping, "I have taken the fort, I have taken the fort." Lord Clive ceased to waver, pursued the enemy, and in a few days re-took Calcutta. The tragedy of the Black Hole had been perpetrated about six months previously.



Strange as it may now appear, it is said the sailor was punished for desertion; upon which he exclaimed, "Well, if that is all that's to be got by taking a fort, I'll never take another as long as I live."

Our arrival being at the height of the rainy season, the river was exceedingly full, and pouring its mighty volume of turbid water towards the sea. We were consequently floating higher than the usual level, and had a good view over the flat country beyond the enclosing banks (*bunds*, as they are called here) of the river. The country was very flat, and much of it covered with water; the villages were built on raised mounds of earth, and mostly embowered in a grove of lofty trees, the elegantly graceful bamboos, which here grow in great luxuriance.

Here and there also, near the margin of the water, were to be seen pagodas or temples of idolatry, among (to us strangers) novel vegetation, together with ghauts or landing-places, where the natives come down either to bathe in the sacred river or to carry water in earthen vessels to their homes, and it was pleasing to see the graceful ease with which the women carry these vessels on their heads. But the sights were not all of the same pleasing kind, for many dead bodies of natives were floating about, being fed upon by



ENGLAND TO CALCUTTA.

CSL

vultures and carrion crows; another sad scene too frequently presents itself, offending both the sight and smell, namely, the burning of the dead upon the banks of the sacred stream, but this is too sickening a subject to be dwelt upon.

The native boats are pleasing to look upon, they are so very picturesque, from the shapeless unwieldy-looking country craft, rising high above the water, and propelled by great square sails made of gummy bags, to the frail-looking canoe or dingy, skimming swallow-like on the water.

As the evening advances, during the rainy season, an extraordinary bull-frog concert may be heard; it is the loud croaking, or rather bellowing of frogs, mostly of prodigious size, making an incessant disagreeable chorus; and frequently the plaintive howling of a solitary jackal greets your ear; but it is when these animals roam together in packs, in and about the towns, in search of food, as is the case nightly in Calcutta, that their cry is singularly shrill, a sort of wailing yell, apparently calling to, and answering each other, and then the whole pack set up a general scream. Applying words to this strange music, it would appear thus:—1st jackal, “A dead Hindoo-oo—a dead Hindoo-oo.” 2nd jackal, “Where - ere - ere—Where-ere-ere.” Another jackal, “Here-ere-ere,



here-ere-ere, here-ere-ere." All the pack, "Where, where, here, here, here," &c., &c.

A few miles above Budge-Budge, we rounded a point, and entered a reach of the river which assumes the appropriate name of Garden Reach; here on the right or eastern side for nearly its whole length are situated the lovely mansions of numerous wealthy European residents of Calcutta, standing within their tastefully laid out enclosures, extending to the edge of the noble river, bearing ships of all nations to and from the capital of India. On the left we passed the Botanical Gardens established and maintained by the Government; and the large Gothic edifice called "The Bishop's College," erected in 1821 by the munificence of the people of England for the instruction of native teachers and ministers to propagate the knowledge of the Gospel.

Near the upper end of Garden Reach, stands the handsome Grecian temple-like residence of the Superintendent of the Peninsular and Oriental Company's Establishment, then the worthy and deservedly-popular Captain Engledue, who, coming on board, kindly offered my wife and self accommodation in his house until we could get settled in a home of our own, but of which we did not avail ourselves. This place was the usual termination of the voyage, but for some reason unknown



to me, the ship proceeded further up the river, and came to anchor between the water gate of Fort William and Chandpaul Ghaut, not far from the Government House.

Shortly after passing the Peninsular Company's wharf, we turned a bend in the river, and there stood before us the magnificent City of Palaces; the view was truly grand, Fort William, Princess Ghaut, the Ochterlony Monument. The rising cathedral, covered as it then was with a network of scaffolding, attracted but slight notice, for Government House, or rather palace, stood before us, our attention being instantly taken by this truly noble building, with its fine outspread wings flanking the grand circular centre, surmounted with a dome, on the top of which stood the figure of Britannia, erect and holding a spear.

As we proceeded along this reach, it was curious to see the number of coolies or porters following along the river side, carrying baskets to convey the luggage of such passengers as would employ them upon landing; they were capering and shouting very merrily, although to us strangers, such lean, gaunt, naked figures appeared to have but little to be merry about; a mistake, as we subsequently learned, for they were by no means badly off. There is an anecdote extant of Sir



Elijah Impey, saying to his brother Judges when they first arrived off this same spot, to establish the Supreme Court of Calcutta, an institution intended to redress the supposed wrongs the people suffered at the hands of the East India Company, "Look, brothers, at the victims of oppression; I hope we shall not have been here six months before they will all of them be comfortably clad in shoes and stockings."* Imagine a coolie in the hot climate of Calcutta enduring the torment of shoes and stockings! We landed on the 3rd of September, and proceeded to the hotel, and thus terminated our journey from England to Calcutta, which occupied forty-six days, a great contrast to that of former times, when from three to four months were required for the same purpose, but that was by the long sea route, which with all the improvements in navigation, now occasionally takes up the same time.

On the morning after my arrival, I had an official interview with the Governor-General of India, then Sir Henry, afterwards Viscount,

* Mistakes by Englishmen ignorant of India are even now not uncommon, though much more rare than in former days; many of us can recall the speech of an enthusiastic Member of Parliament, who spoke with horror of the wounded as having been carried off after a battle by the "ferocious dhoolies."

ENGLAND TO CALCUTTA.

Hardinge, after which I entered upon the active duties of my appointment.*

* It appears from this narrative that passengers to India in 1845, travelled in five distinct conveyances whilst on the journey, and lived in three Egyptian hotels. Now one floating hotel carries them through from London to Calcutta, and it seems probable that one railway journey, without a single break, may supersede even the Suez Canal, and before the present century pass away.





CSL

APPENDIX.

THE sequel to this narrative is contained in these few following lines :—

In a short time Mr. Simms found himself comfortably established in Calcutta, and soon after trouble began. Mrs. Simms died of cholera, in the spring of the year following that of the journey here described, after a few hours' illness only, and her husband, who at first met with every assistance and support from the Government of India, under Lord Hardinge (of whose kindness to himself and appreciation of his plans Mr. Simms always spoke most warmly), found himself, soon after that nobleman's resignation of his office, opposed and thwarted by the Indian officers, who, having had few opportunities or none at all of becoming acquainted with railway matters, yet considered themselves qualified to advise the Government, and set aside plans considered and prepared after careful surveys and explorations by a man of acknowledged skill and very great experience; it was because of this erroneous treatment that the East Indian Railway was driven so near the



course of the Ganges and by a circuitous route, that is one many miles further round than the present Chord Line, which being taken up by an independent company, was thus forced upon the Government as a positive necessity; and corresponding as it does very nearly to the line originally proposed by Mr. Simms, may be fairly laid to his credit. However, the recognition of the necessity of this most advantageous measure came very late, and its projector only just lived long enough to see the commencement of his work, and not long enough to hear the warm expressions of satisfaction with which Mr. Crawford, the able Chairman of the East Indian Railway Company, spoke of the Chord Line, and attributed to it the earlier and more steady progress of his railway upon the road to its present state of prosperity.

In one of the last few notes to this volume, allusion has been made to the preference shown to Port Canning (now no longer used) over Diamond Harbour, and there are in my possession papers which show that Mr. Simms designed a bridge over the River Hoogly at Calcutta, a plan the execution of which has been deferred to the present time, and only lately been independently accomplished by Mr. Bradford Leslie, now the chief engineer of the East Indian Railway. Mr. Simms returned home in the autumn of 1850, disheartened and in



bad health, and after some attempts to resume his professional work, in which he found himself constantly frustrated through inability for exertion of any kind, became resigned to a life of inaction, ill-suited to the active mind of a man only in middle life. His last work was, as Consulting Engineer of the Mid-Kent Line (now the London, Chatham, and Dover Railway), to assist in laying out that portion extending from Canterbury to Rochester, the scene of some of the struggles of his earlier life, when they tried to take the South-Eastern Railway through Rochester on to Dover; but the strife thus renewed under changed circumstances (for the South-Eastern Railway Company were now the opponents, and the Kentish landowners the supporters of the road), again collapsed, this time for want of funds, and only to be renewed successfully a few years later, and after Mr. Simms had resigned his official connection with the Company. He died early in the year 1865.

To these last, to myself somewhat sad statements, are appended extracts from some Indian newspapers in support of them, and, moreover, it should here be mentioned, that upon his retirement Mr. Simms received the thanks of the Government of India for his services, and an acknowledgment of the promptitude with which

his official work had been passed through his office; and also that upon his arrival in England, the Court of Directors of the Honourable East India Company awarded him their vote of thanks.

The *Friend of India*, in an article of its issue, June 13th, 1850, says, "We are happy to find that the *Englishman*,* in an article which we have extracted, has endeavoured to do justice to his eminent services whilst he has been among us in India."

Mention has also been made both in this paper, and in the *Englishman*, of the proposed railway through the coal fields, of the hostilities of the *Hurkaru* (another Indian newspaper) to this project, and of the large profits likely to accrue upon the completion of the line, profits which the East Indian Railway Company are now realising.

Just lately (June, 1877), through the kindness of my friend Mr. Dorning, the chief accountant of the above-mentioned Company, I have had the great pride and gratification to read an article in the (Calcutta) *Englishman* of December 22nd ult., the portion of which relating to my subject is here reproduced *verbatim* :—

"Mr. Simms, the first engineer of the East Indian Line, took it by the hills south of the

* A Calcutta paper, the property of the late Mr. Marshman.



Parasnath Hill, so as to avoid the treacherous rivers near the Ganges after they left the hills.

“His views were put aside, after his surveys had cost very large sums, and the line north of the Parasnath Hill was preferred, through the swamps, and over the rivers, after they left the hills, and liable to the annual torrents, swelled by a thousand streams as they approached the great river.

* * * *

“Besides, it has been found necessary to construct what is called the Chord Line, that is a new line almost in the path approved by Mr. Simms.

* * * *

“There is little doubt, however, that if Mr. Simms' survey had been adhered to, mistakes would have been avoided, and the cost of the line would have been moderate.”

I may here say that the Government estimate of the cost of the East Indian Railway was a very low one, much smaller than that of Mr. Simms, whose own estimate, however, has been also exceeded.

In this quotation Mr. Simms is spoken of as the first engineer of the East Indian Railway Company, and erroneously, as he served the Honourable East India Company, and no other body, his appointment being that of Consulting Engineer to the Government of India; also no



CSL

APPENDIX.

mention has been made of the advantages the Chord Line derives from its propinquity to the coal fields, a fact well known when Mr. Simms designed the line, and mentioned in the *Hurkaru* and other Indian papers of the year 1850.

7003



CSL 37

WORKS BY THE SAME AUTHOR.

PRACTICAL TUNNELLING: Explaining in detail the Setting out of the Works, Shaft-sinking and Heading-Driving, Ranging the Lines and Levelling under Ground, Sub-Excavating, Timbering, and the Construction of the Brickwork of Tunnels with the amount of labour required for, and the Cost of, the various portions of the work. By **FREDERICK WALTER SIMMS**, M. Inst. C.E., author of "A Treatise on Levelling." Third Edition, Revised and Extended, with additional chapters illustrating the Recent Practice of Tunnelling as exemplified by the St. Gothard, Mont Cenis, and other modern Works, by **D. KINNEAR CLARK**, M. Inst. C.E. Imp. 8vo, cloth, with 21 Folding Plates and Numerous Wood Engravings, price 30s. [*Just published.*]

"It is the only practical treatise on the great art of tunnelling. Mr. Clark's work brings the exigencies of tunnel enterprise up to our own time. The great length of modern tunnels has led to a new difficulty in the art, which the last generation was ignorant of, namely, the difficulty of ventilation. In Mr. Clark's supplement we find this branch of the subject has been fully considered. Mr. Clark's additional chapters on the Mont Cenis and St. Gothard Tunnels contain minute and valuable experiences and data relating to the method of excavation by compressed air, the heading operations, rock-boring machinery, process of enlargement, ventilation in course of construction by compressed air, labour, and cost, &c."—*Building News*, Dec. 8, 1876."

"The estimation in which Mr. Simms' book on tunnelling has been held for over thirty years cannot be more fully expressed than in the words of the late Professor Rankin:—'The best source of information on the subject of tunnels is Mr. F. W. Simms' work on 'Practical Tunnelling.''"—*The Architect*, Dec. 9, 1876.

LEVELLING: A TREATISE on the PRINCIPLES and PRACTICE of LEVELLING; showing its Application to Purposes of Railway and Civil Engineering, in the Construction of Roads; with Mr. TELFORD's Rules for the same. By **FREDERICK W. SIMMS**, F.G.S., M. Inst. C.E. Sixth Edition, very carefully revised, with the edition of Mr. LAW's Practical Examples for Setting out Railway Curves, and Mr. TRAUTWINE's Field Practice of Laying out Circular Curves. With 7 Plates and numerous Woodcuts. 8vo, 8s. 6d. cloth.

* * * TRAUTWINE on Curves, separate, price 5s.

"One of the most important text-books for the general surveyor, and there is scarcely a question connected with levelling for which a solution would be sought but that would be satisfactorily answered by consulting the volume."—*Mining Journal*.

"The text-book on levelling in most of our engineering schools and colleges."—*Engineer*.

MATHEMATICAL AND DRAWING INSTRUMENTS:

A TREATISE ON THE PRINCIPAL MATHEMATICAL AND DRAWING INSTRUMENTS employed by the Engineer, Architect and Surveyor. By **FREDERICK W. SIMMS**, M. Inst. C.E., Author of "Practical Tunnelling," &c. Third Edition, with numerous Cuts. 12mo, price 3s. 6d. cloth.



Will shortly be published.

CSL

SIR BERNARD BURKE'S
ENCYCLOPÆDIA OF HERALDRY;
OR
GENERAL ARMORY
OF
ENGLAND, SCOTLAND, AND IRELAND.
CONTAINING
THE BLAZON OF THE ARMS
OF
60,000 FAMILIES.

AN ENTIRELY NEW EDITION, CORRECTED TO
THE PRESENT DATE.

1100 pages, super-royal 8vo., cloth. Price £2 12s. 6d.

For Specimen of Work, see next page.

Specimen of Work described on opposite page.

THE GENERAL ARMORY.

A B R

- Abriscourt** (Oxfordshire). Erm. (or vert) three bars humettée gu. (or or.) *Crest*—A hare close among grass ppr.
- Abrol, or Aboril** (Worcestershire). Per pale or and gu. three roundels counterchanged. *Crest*—A lion's head vomiting flames ppr.
- Abrook**. Or, a cross engr. per pale gu. and sa. a chief erm. *Crest*—A wolf's head erased sa.
- Abry** (Glamorgan). Az. a chev. betw. three griffins' heads erased or.
- Absall**. Ar. a cross sa.
- Abyne**. Erm. on a cross gu. five annulets or.
- Abys** (Derbyshire). See **ABBIS**, Norfolk.
- Academy, Royal Irish**. Ar. a saltire gu. charged with the imperial crown of England ppr. *Crest*—Out of a pointed or Irish crown or, an étoile of eight points ar. charged with a cross gu. *Supporters*—On the dexter a female figure representing Liberty, holding in her right hand a wand, thereon a cap gu., on the sinister a figure of Minerva, holding in her right hand a lance, and in the left a scroll. *Motto*—We will endeavour.
- Academy of the Muses**. Ar. two bars wavy az., on a chief of the second a music book open or, betw. two swords in saltire, of the first, hilted and pommel of the third. *Crest*—A sagittarius in full speed ppr. shooting with a bow or, and arrow ar. *Supporters*—Dexter, a satyr, sinister, a merman with two tails, both ppr. *Motto*—Nihil invita Minerva.
- Acberts**. Az. three fishes haurient two and one ar.
- Accotts** (Ireland). Or, on a cross quarter-pierced az. twenty plates five in each quarter.
- Aceles** (Cornwall). Or, four pallets sa.
- Acguillum**. Gu. three fleurs-de lis ar. *Crest*—A dexter hand holding a holly-branch ppr.
- Achamber** (Suggerton). Az. a key in pale, ward upwards, betw. two mullets of six points or.
- Achannay, or Ahannay** (Sorbie, an old family in Galloway, the name of which is now written HANNAY). Ar. three roebucks' heads couped az. collared or, with a bell pendant to the collar gu. *Crest*—Out of a crescent a cross crosslet fitchée sa. *Motto*—Per ardua ad alta.
- Achard** (Berkshire). Or, a bend engr. sa.
- Achard** (Berkshire). Gyronny of six ar. and gu. a lable of five points az.
- Achard** (co. Gloucester). Barry wavy of six ar. and gu. a label of five points az.
- Achard**. Or, a bend of five fusils sa.
- Achart**. Barry wavy of six ar. and gu.
- Achas** (Leicestershire). Sa. three fleurs-de-lis ar.
- Ache, Acche, or Achey** (Devonshire). Sa. (another gu.) two demi lions pass. guard. in pale or.
- Achefield**. Per chev. ar. and sa. three leopards' faces counterchanged.
- Achefield**. Per chev. ar. and sa. in chief a label of three points gu. in base three leopards' faces or.
- Acheley** (London and Shropshire). See **ATCHERLEY**.
- Acheley**. Gu. on a fesse engr. betw. three leopards' heads erased or, as many crosses crosslet fitchée sa. *Crest*—A griffin's head erased ppr.
- Acheley**. Per pale gu. and or, a fleur-de-lis counterchanged.
- Acheney**. Ar. five lozenges in saltire betw. four of the lozenges gu.



CSL

By Appointment to Her Majesty & H.R.H. the Prince of Wales.



HARRISON & SONS,
Account Book Manufacturers
AND
EXPORT STATIONERS,
WRITING CASE AND DESPATCH BOX MAKERS,
*LETTER-PRESS, LITHOGRAPHIC, AND
COPPER-PLATE PRINTERS,*
Heraldic Die Sinkers and Seal Engravers,
1, ST. JAMES'S STREET, LONDON, S.W.,

PUBLISHING & BOOKSELLING DEPARTMENTS:—59, Pall Mall, S.W.

PRINTING OFFICES:—45 & 46, St. Martin's Lane, Charing Cross, W.C., and 15 & 16, Great May's Buildings, Charing Cross, London, W.C.



CSL

By Appointment to Her Majesty & H.R.H. the Prince of Wales.



CATALOGUE OF BOOKS

PUBLISHED AND SOLD BY

HARRISON AND SONS,

59, PALL MALL, & 1, ST. JAMES'S ST., LONDON, S.W.

New and Important Works.

Burke's General Armory. Encyclopædia of Heraldry, or General Armory of England, Scotland, and Ireland. By SIR BERNARD BURKE, C.B., LL.D. Comprising a registry of all Armorial Bearings from the earliest times. An entirely new edition. Corrected to the present date. Comprising, in about 1,000 pages, the description of the ARMS OF 60,000 FAMILIES; forming the most complete record of the Armorial Bearings of the Nobility and Gentry of the Three Kingdoms. (Uniform with the Peerage, Landed Gentry, &c.) Royal 8vo., cloth. Price £2 12s. 6d.

Burke's Peerage, Baronetage, &c., for the present year, WITH ADDITIONAL MATTER, containing the Privy Councillors, Knights of various Orders and Knights Bachelors, with a record of their families. Royal 8vo., cloth, gilt. Price 38s.

* * * This edition also gives the names of the different Clubs to which the members of the Nobility belong, and other important information not contained in previous editions.



Harrison and Sons, Publishers,

CSL

Landed Gentry of Great Britain and Ireland. By SIR BERNARD BURKE, C.B., LL.D. A RE-ISSUE OF THE FIFTH EDITION, with Supplement containing nearly 200 ADDITIONAL FAMILIES, and an Addenda containing NUMEROUS CORRECTIONS; together with an Index to Families in Supplement and Addenda. 2 vols., royal 8vo., cloth gilt. Price £3 3s.

"A work of this kind is of a national value. Its utility is not merely temporary, but it will exist and be acknowledged as long as the families, whose names and genealogies are recorded in it, continue to form an integral portion of the English constitution."—*Post*.

The Overland Route, From England to Calcutta, as Conducted in 1845. By the late FREDERICK WALTER SIMMS, Esq., F.R.A.S., F.G.S., M. Inst. C.E., late Consulting Engineer to the Government of India; Author of "Practical Tunnelling," "Surveying and Levelling," &c. Edited by his SON. Foolscap 8vo., cloth. Price 6s.

Great Landowners of Britain, being a List of all Owners of 3,000 acres and upwards, worth £3,000 a year, in England, Scotland, and Ireland; their acreage, income from land, college, club and services. Culled from the "Modern Domesday Book," by JOHN BATEMAN. Crown 8vo., cloth. Price 10s.

Large Game Shooting in Thibet and the North-West. By CAPTAIN ALEXANDER A. A. KINLOCH, C.M.Z.S. Containing description of the Country, and of the various Animals to be found, together with extracts from a journal of several years' standing. Illustrated by Photographs of Heads and Horns, executed by the Photo-tint process. SECOND SERIES. Demy 4to., cloth gilt. Price 21s.

"* * This work will prove highly acceptable to Sportsmen, for the Author not only explains where the game is to be found, the mode of travel, and the best seasons to hunt, but gives some well executed photos of the large game. . . . This work should be largely patronized."—*European Mail*.

"The animals, whose haunts and habits he describes, are those which he has himself tracked out and slain, often after many ineffectual attempts, and an amount of persevering toil which would have tired out the patience of most men."—*Edinburgh Courant*.



59, Pall Mall, and 1, St. James's Street, London. 3

CSL

Life of Sir William Parker, Bart, G.C.B.

(Admiral of the Fleet), First and Principal Naval Aide-de-camp to Her Majesty, &c., from 1781 to 1866. By REAR-ADMIRAL AUGUSTUS PHILLIMORE, with History of the Parker Family, &c. (To be completed in two volumes.) Volume 1, Demy 8vo., cloth. Price 16s.

* * "This is a delightful book, as full of adventure and interest as one of Marryat's novels, yet written without any kind of affectation or exaggeration. . . . We shall look forward with much interest to the appearance of the second volume of this very valuable and most interesting biography."—*Vanity Fair*.

"The chief value of this important biography seems to us that it shows, in a clear light, the state of the Navy at a most critical epoch."—*Civil Service Gazette*.

Karens of the Golden Chersonese. By

LIEUT.-COL. A. R. MCMAHON, F.R.G.S., Madras Staff Corps, Deputy-Commissioner British Burmah. With Map. Demy 8vo., cloth. Price 16s.

"The author possesses a good knowledge of native character; his picture of the Karen tribes, enslaved, and despised by their Birmese conquerors, is in striking contrast to his account of the free and fierce Red Karen untractable and inaccessible in his native mountain home."—*Athenæum*.

Post Hiems Ver. A Novel. By ADA MONTAGUE.

Crown 8vo., cloth.

Army and Navy Signal Book, for use with the Boats of H.M.'s Ships and Naval and Military Forces.

12mo., cloth. Price 4s.

Army Circulars. Published monthly.

Army Equipment, prepared at the Topographical and Statistical Department, War Office. By COLONEL SIR HENRY JAMES, R.E., F.R.S., Director. Royal 8vo., cloth.

- Part I.—CAVALRY. Price 4s.
- " IV.—MILITARY TRAIN. Price 2s. 6d.
- " V.—INFANTRY. Price 5s.
- " VI.—COMMISSARIAT. Price 1s. 6d.
- " VII.—HOSPITAL SERVICE. Price 5s.

Army Hospital Corps. Instructions for Non-commissioned Officers and Men. 12mo., roan. Price 2s.



Harrison and Sons, Publishers.

CSL

Army Hospital Corps Regulations. Royal
8vo., cloth. Price 9d.

Army Promotion and Retirement. Abstract of the Report of the Royal Commission on Army Promotion and Retirement, with Abstracts of the Evidence and of the Appendix. Prepared by DENHAM ROBINSON, of the War Office, Actuary. Demy 8vo., sewed. Price 3s.

Artificers' (Military) Handbook. By SERGEANT-MAJOR T. ARMSTRONG, R.A. New Edition, 1877. 12mo., roan. Price 3s.

Artillery. A plea for its better Technical Education. By a GENERAL OFFICER. 8vo., sewed. Price 6d.

Artillery—Useful Tables. Compiled by CAPT. W. H. NOBLE, R.A. Printed by order of the Secretary of State for War. Sewed. Price 6d.
The object of this book is to provide a set of Numerical Tables, which will prove useful to Artillerymen.

Artillery Carbine (Snider) Manual and Firing Exercises. 1874. Sewed. Price 2d.

Artillery Exercises (Field) Manual, 1877, with Diagrams. Demy 8vo., cloth. Price 3s. Interleaved 4s.

Artillery Exercises Manual, 1873. Royal 8vo., cloth. Price 5s., Pocket Edition, 1s. 6d.

Artillery Exercises Manual, 1873. Revision of Part II, Section I. HEAVY ORDNANCE, 1877. Royal 8vo. Sewed. Price 6d. Revision of Part II, Section 4. Price 1d.

Artillery Volunteers. Catechism for Officers. By LIEUT.-COLONEL J. M. MACINTYRE. 48mo., cloth. Price 1s.



59, Pall Mall, and 1, St. James's Street, London. 5

CSL

Austria, Armed Strength. Compiled at the Topographical and Statistical Department of the War Office, by CAPT. W. S. COOKE. Royal 8vo., sewed. Part 1. Price 10s. 6d. Part 2. Price 11s. 6d.

Austria. Treaties and Tariffs. See "Hertslet."

Authorized Arms. A Selection of Arms authorized by the Laws of Heraldry. By SIR BERNARD BURKE, C.B., LL.D. With Annotations. Illustrated throughout with the various Arms. 8vo., cloth. Price 21s.

Auxiliary and Reserve Forces Circulars, being Regulations and Instructions promulgated by direction of the Secretary of State for War. Sewed. Published Quarterly.

Auxiliary Cavalry. Instructions in the Duties of Cavalry Reconnoitring an Enemy; Marches; Outposts; and Reconnaissance of a Country; for the use of Auxiliary Cavalry. New Edition, 1876. Price 1s. 6d.

Baldwin's Laws of Short Whist. Dedicated by permission to H.R.H. The Prince of Wales, and adopted by all the principal Clubs. And a Treatise on the Game. By JAMES CLAY. 2nd edition, with alterations and additions. Fcap. 8vo., cloth, gilt edges. Price 3s. 6d.

*** The Laws can also be had separately, in large clear type, on a sheet, price 3s. 6d., suitable for hanging in Card Rooms.

Banting's Letter on Corpulence. Fourth edition, with prefatory remarks, copious information from correspondents, and confirmatory evidence. Demy 8vo., sewed. Price 1s.

"The author has made a discovery at which every corpulent man has reason to rejoice."—*Post*.

"Banting has become a household word in men's mouths. 'Have you tried Banting?' is as common a question as 'How do you do?'"—*Standard*.



Harrison and Sons, Publishers,

CSL

Bischof's (Dr.) Elements of Chemical and PHYSICAL GEOLOGY. Edited, and in part translated from the Manuscript of the Author. By BENJ. H. PAUL, Ph.D. 3 vols. Demy 8vo., cloth. Price £1 11s. 6d.

Black and Tan. (A Novel.) By WILLIAM THOMAS. One volume, post 8vo., cloth. Price 5s.
* * "A short tale which can be read without fatigue."—*Pall Mall Gazette*.

Book of Common Prayer, according to the MS. preserved in the Rolls Record Office, Dublin. Edited by A. J. STEPHENS, Esq., Q.C., LL.D. 3 volumes, demy 8vo., cloth. Price £1 11s. 6d.

Book of Common Prayer, according to the Text of the Sealed Books; showing the variations therefrom, together with a copy of the original charter of Charles II.; with Notes, Legal and Historical, by A. J. Stephens, Esq., Q.C., LL.D. 3 volumes, demy 8vo., cloth. Price £1 11s. 6d.

Bugle Sounds. See "Trumpet and Bugle Sounds."

Bugle Sounds for Infantry. By Command of His Royal Highness, General Commanding-in-Chief. Boards. Price 6d.

Burgoyne, Field Marshal Sir John: his LIFE and CORRESPONDENCE. Comprising Extracts from his Journals during the Peninsular and Crimean Wars; Letters of the Duke of Wellington, Marquis of Anglesey, Lords Hardinge, Palmerston, and Herbert, Sir Robert Peel, Lord Raglan, Omar Pacha, and many other celebrated men. Also the Private and Official Correspondence of Sir John Burgoyne during the Crimean War. Edited by LIEUTENANT-COLONEL the HON. GEORGE WROTTESELEY, R.E. Two volumes, 8vo., with Portrait. PUBLISHED AT 30s., offered at 7s. 6d. net.

* * * Messrs. Harrison have purchased the only few remaining copies of this interesting work.



CSL

59, Pall Mall, and 1, St. James's Street, London. 7

WORKS BY
SIR BERNARD BURKE, C.B., LL.D.,
ULSTER KING OF ARMS.

* * "The list of his works, remembering their nature, and the size, intricacy, and almost endless ramifications of some of them, present an example of rare industry, system, mental energy, and capacity."—*Dublin University Magazine*.

Burke's Peerage, Baronetage, and

KNIGHTAGE of the British Empire for the present year, with additional matter, containing the Privy Counsellors, Knights of various Orders and Knights Bachelors, with a record of their families. This edition also gives the names of the various Clubs to which the members of the Nobility belong. Royal 8vo. Price 38s.

* * "It is the only work which records the ancient history of those great houses whose heads and members fell in such numbers in the Wars of the Roses, and under the Tudor and Stuart sovereigns.

"We have subjected the work to a somewhat searching ordeal, and we are bound to add that it comes out of it only to confirm our previous impressions as to the accuracy and fidelity with which the Editor has performed his task."—*Times*, Feb. 3rd, 1877.

"It not only supplies full information concerning living persons of title, but also furnishes complete particulars of their lineage."—*Graphic*, Jan. 20th, 1877.

"This admirably arranged volume of reference maintains, and even raises, the reputation which the work has gained in a long series of years."—*Daily Telegraph*, Jan. 18th, 1877.

Burke's Landed Gentry of Great Britain

and Ireland. A RE-ISSUE OF THE FIFTH EDITION, with Supplement containing nearly 200 ADDITIONAL FAMILIES, and an Addenda containing NUMEROUS CORRECTIONS; together with an Index to Families in Supplement and Addenda. 2 vols., royal 8vo., cloth, gilt. Price £3 3s.

"A work of this kind is of a national value. Its utility is not merely temporary, but it will exist and be acknowledged as long as the families, whose names and genealogies are recorded in it, continue to form an integral portion of the English constitution."—*Post*.

Burke's Dormant, Abeyant, Forfeited,

AND EXTINGUISHED PEERAGES of the British Empire. Illustrated by Steel Engravings of the Principal Arms, 1866. Royal 8vo., cloth gilt. Price £2 2s.

By the publication of this splendid volume, Ulster King of Arms completes the structure of information which he has been so long engaged in rearing, and in whose construction he has displayed, not only the accuracy and research of the herald, but the generalization, the appreciation of the historian."—*Morning Post*.



Harrison and Sons, Publishers,

CSL

NEW EDITION OF THE "GENERAL ARMORY."

Burke's Encyclopædia of Heraldry, or
General Armory of England, Scotland and Ireland. Com-
prising a registry of all Armorial Bearings from the earliest
times. An entirely new edition. Corrected to the present
date. Comprising, in about 1,000 pages, the description of
the ARMS OF 60,000 FAMILIES; forming the most
complete record of the Armorial Bearings of the Nobility
and Gentry of the three Kingdoms. (Uniform with the
Peerage, Landed Gentry, &c.) Royal 8vo., cloth. Price
£2 12s. 6d.

Burke's Royal Families of England, Scotland,
and Wales, with Pedigrees of Royal Descents in illustration.
A remodelled and revised re-issue of the original work.
8vo., cloth gilt. Price 21s.

Burke's Authorised Arms. A Selection of
Arms authorized by the Laws of Heraldry, with Annota-
tions. Illustrated throughout with the various Arms. 8vo.,
cloth. Price 21s.

Burke's Sovereigns of England from the
Norman Conquest. IN RHYME. Square cloth. Price 1s.

Burke's Celebrated Trials connected with
the Upper Classes of Society in the Relations of Private
Life. By PETER BURKE, Esq., Barrister-at-Law. 8vo.,
cloth. Price 16s.

Cavalry (Auxiliary). See "Auxiliary Cavalry."

Cavalry Carbine (Snider) Manual and
Platoon Exercises. 1874. Sewed. Price 1d.

Cavalry Carbine (Westley-Richards).
Manual and Firing Exercises. 1870. Sewed. Price 1d.

Cavalry Outpost Duties, Instructions
for. 1876. 12mo., cloth. Price 6d.



59, Pall Mall, and 1, St. James's Street, London.

CSL

Cavalry, Regulations for Instructions, Formations, and Movements, 1876. Revised and corrected. 8vo., cloth. Price 4s. 6d. Pocket Edition, 3s. 3d.

Cavendish Society Publications.

LIFE AND WORKS OF CAVENDISH, by Dr. GEORGE WILSON. Demy 8vo., cloth. Price 7s.

LIFE AND SCIENTIFIC RESEARCHES OF DALTON, by Dr. W. C. HENRY. Demy 8vo., cloth. Price 7s.

LAURENT'S CHEMICAL METHOD, translated by Dr. ODLING, F.R.S. Demy 8vo., cloth. Price 7s.

ELEMENTS OF CHEMICAL AND PHYSICAL GEOLOGY, by GUSTAV BISCHOF, Ph.D. Edited, and in part translated from the Manuscript of the Author, by BENJ. H. PAUL, Ph.D. 3 vols., demy 8vo., cloth. Price £1 11s. 6d. each.

LEHMANN'S PHYSIOLOGICAL CHEMISTRY, translated and edited by Dr. G. E. DAY, F.R.S. *The first volume of this work is out of print.* The 2nd and 3rd vols., demy 8vo., cloth. Price 7s. each.

DR. OTTO FUNKE'S ATLAS OF PHYSIOLOGICAL PLATES. Price 7s.

HANDBOOK OF INORGANIC CHEMISTRY, by LEOPOLD GMELIN, translated and edited by HENRY WATTS, B.A., F.R.S. 6 vols., demy 8vo., cloth. *Some of these volumes are out of print.* A new edition of vols. 1 and 2, and a few of vols. 4, 5, and 6 can be had to complete sets. Price 10s. 6d. each.

HANDBOOK OF ORGANIC CHEMISTRY, by LEOPOLD GMELIN, translated and edited by HENRY WATTS, B.A., F.R.S. 12 vols., demy 8vo., cloth. Complete for £4 4s. Separate vols. 10s. 6d. each.

INDEX TO GMELIN'S HANDBOOK OF CHEMISTRY, by HENRY WATTS, B.A., F.R.S. Demy 8vo., cloth. Price 14s.

China, Treaties and Tariffs. See "Hertslet."



Harrison and Sons, Publishers,

CSL

Civil Service, &c. Tables showing the limits of age and subjects of Examination prescribed for the various Departments of the Home Civil Service, together with the subjects of Examination for the Army, Civil Service of India, &c., 1877. Royal 8vo., sewed. Price 1s. 9d.

Coast Guard Manual for the use of the Boatmen, &c. Demy 8vo. Price 1s. 6d.

Coleman's Notes on Philosophy, MENTAL AND MORAL, with an Appendix, containing a Selection of Questions set at the India Civil Service Examinations, between the years 1856 and 1864; and References to the Answers in the Text. Fcap. 8vo., cloth. Price 3s. 6d.

Colonial Office List for the present Year. Compiled by E. D. FAIRFIELD, of the Colonial Office. Corrected throughout. Demy 8vo., cloth. Price 6s.

Colonial Service Rules and Regulations. 8vo., cloth. Price 1s.

Commissariat Department Regulations. War Office, 1876. 8vo., cloth. Price 1s. 6d.

Commissariat and Ordnance Store Departments Regulations. War Office, 1876. 8vo., cloth. Price 2s.

Corpulence. See under "Banting."

Cricket. Jerks in from Short Leg. By QUID. Cricket as a Profession, the Field, Umpires, Cricket Grounds, Cricket Nurseries, Confidence, Temper, a Cricket Dream, Cricket Types, the Spectators, the Ladies, Conclusion. With 90 Illustrations, by W. H. DU BELLEW. Fcap, 4to., cloth gilt. Price 7s. 6d.



CSL

59, Pall Mall, and 1, St. James's Street, London. 11

Dalton's Life and Scientific Researches,
by Dr. W. C. HENRY. "CAVENDISH SOCIETY."
Demy 8vo., cloth. Price 7s.

Denmark, Armed Srength of. Compiled
in the Topographical Branch, Quartermaster-General's
Department. By CAPTAIN W. S. COOKE, 22nd Foot.
Royal 8vo., sewed. Price 3s.

Drainage. Suggestions as to the Preparation of
Plans as to Main Sewerage and Drainage, and as to Water
Supply. Local Government Act, 1858. Corrected to
1874. Demy 8vo., sewed. Price 1s. 6d.

**Dress worn by Gentlemen at Her Majesty's
COURT.** Revised edition, 1876. 8vo., sewed. Price 1s.

**Dress Regulations for Officers of the
ARMY.** 1876. 8vo., cloth. Price 1s. 6d.

Drill Book for the use of the Royal Naval Reserve,
1873. Cloth. Price 6d.

Drill Manual for Mounted Rifle Volunteers. See
"Volunteers."

Electricity. Elementary Lectures on Electricity,
with Notes on the Instruments and Apparatus in use in
the Telegraphic Troop, R.E. 1877. Crown 8vo., sewed.
Price 1s. 9d.

Emigrants to the British Colonies,
Information issued by H.M. Emigration Commissioners.
60 pages Demy 8vo., sewed. Price 2d.

Encampment Regulations and Instructions.
1877. Price 6d.



Harrison and Sons, Publishers,

CSL

Encyclopædia of Heraldry. See "Burke."

Engineer Department Regulations, with an Appendix. Royal 8vo., cloth. Price 3s.

Engineering, Manual of Elementary Field Engineering. By Authority. With numerous Diagrams and Illustrations. Roan. Price 1s. 6d.

England to Calcutta, by the Overland Route, as Conducted in 1845. By the late FREDERICK WALTER SIMMS, Esq., F.R.A.S., F.G.S., M. Inst. C.E., late Consulting Engineer to the Government of India; Author of "Practical Tunnelling," "Surveying and Levelling," &c. Edited by his SON. Fcap. 8vo., cloth. Price 6s.

Eothen, with Illustrations. Post 8vo., cloth gilt. Price 6s.

"The best book of Eastern Travel that we know."—*Examiner*. "Graphic in delineation, animated in style, frank in manner, and artistical in the choice and treatment of subjects selected for presentation."—*Spectator*. "The author has wit and humour that shed an illustrative gleam on every object which he describes, placing it in the happiest relief. The book is 'light as light,' and lively as life, yet there are in it passages and scenes which would make most men grave and solemn."—*Athenæum*.

Equipment. Royal Warrant and Regulations for the Equipment of Her Majesty's Army (serving elsewhere than in the Indian Empire), including the Armaments of Works. 1876. Royal 8vo., cloth. Price 5s. 6d.

Examination Papers. See "Military Examinations."

Examinations. Tables showing limits of age and subjects for Examination, &c., &c., for Civil Service, and for the Army. See "Civil Service, &c."

Extinct and Dormant Peerages. See "Burke."



CSL

59, Pall Mall, and 1, St. James's Street, London. 13

Explosive Acts. Guide Book to the Explosive Act, 1875, and to the Orders in Council, and Orders of the Secretary of State made under that Act, for the use of Local Authorities and their Officers. By VIVIAN DERING MAGENDIE, Major R.A. Roan. Price 2s.

Farr's Life Tables. Tables of Lifetimes, Annuities, and Premiums, with an Introduction. *Published by authority.* Imperial 8vo., cloth, 762 pages. Price £2 2s.

Field Exercises and Evolutions of Infantry. NEW EDITION, revised by Her Majesty's Command. 1877. Price 1s.

Firing Exercises for Snider Rifle. 1d.

Foreign Office List for the Present Year. Compiled by EDWARD HERTSLET, C.B., Librarian and Keeper of the Papers, Foreign Office. Corrected throughout. Demy 8vo., cloth. Price 6s.

Foreign Politics and England's Foreign POLICY. A Lecture given at Bradford by COLONEL HOPE CREALOCK, C.B. Demy 8vo., sewed. Price 1s. 6d.

Fortification, Military Engineering, and Geometrical Drawing. Instructions as used at the Royal Military Academy, Woolwich. 4to., boards. Price 12s.

Foxhunting.—Vyner's Notitia Venatica. A Treatise on Foxhunting, the General Management of Hounds, and the Diseases of Dogs, Distemper and Rabies, Kennel Lameness, &c., &c., by ROBERT C. VYNER; with spirited coloured illustrations by ALKEN. Royal 8vo., cloth, gilt. Published at 21s.; offered at 12s.

*** Only a few copies of this work remain.



Franco-German War, 1870-71. Official

Account of the History of the War to the Downfall of the Empire. Authorised Translation from the German, by CAPTAIN F. C. H. CLARKE, R.A.

First Section: History of the War to the Downfall of the Empire. The Events in July. Royal 8vo., sewed. Price 3s.

Second Section: Events to the eve of the Battles of Worth and Spicheren. Royal 8vo., sewed. Price 4s.

Third Section: The Battles of Worth and Spicheren. Royal 8vo., sewed. Price 5s.

Fourth Section: Advance of the 3rd Army to the Moselle. Proceedings of the 1st and 2nd Armies to the night of August 14. Price 4s.

Fifth Section: Operations near Metz on the 15th, 16th and 17th August. Battle of Vionville—Mars la Tour. Price 6s. 6d.

Sixth Section: The Battle of Gravelotte—St. Privat (with 2 plans and sketches in the Text). Royal 8vo. Price 5s.

Seventh Section: Advance of the 3rd Army, and of the Army of the Meuse against the Army of Chalons. Battle of Beaumont (with two plans, a general map and numerous sketches). Royal 8vo. Price 6s.

Eighth Section: The Battle of Sedan (with two plans and two sketches). Royal 8vo. Price 3s.

Ninth Section: Proceedings on the German Coast and before the Fortresses in Alsace and Lorraine. Battle of Noisseville. General view of the Franco-German War up to the commencement of September (with three plans and two sketches). Royal 8vo. Price 4s. 6d.

Tenth Section: History of the War against the Republic. Investment of Paris. Capture of Toul and Strassburg (with plans and sketches). Royal 8vo. Price 6s.

* * * The first five Sections bound together and forming Volume 1, with case of maps and plans. Royal 8vo., cloth. Price 26s. Sections 6 to 9 bound together and forming Volume 2, with case of maps and plans. Royal 8vo., cloth. Price 22s.

Friendly Societies. Memorandum for the

Guidance of Societies under the Friendly Societies Acts (38 and 39 Vict., c. 60, and 39 and 40 Vict., c. 32), with substituted and additional Regulations, dated February, 1877. Crown 8vo., sewed. Price 6d.



9, Pall Mall, and 1, St. James's Street, London. 15

GL

French Naval Tactics, containing General Instruction, Principles of Chasing and Naval Tactics under Steam and Sail. Translated by CAPTAIN AUGUSTUS PHILLIMORE, R.N., with numerous diagrams. Royal 8vo., cloth. Price 10s.

General Armory. Encyclopædia of Heraldry; or, General Armory of England, Scotland and Ireland; comprising an account of all Armorial Bearings registered from the Earliest Times to the Present Date. By SIR BERNARD BURKE, C.B., LL.D.

ENTIRELY NEW EDITION, CORRECTED TO THE PRESENT DATE.

Comprising in about 1,000 pages the description of the ARMS OF 60,000 FAMILIES; forming the most complete record of the Armorial Bearings of the Nobility and Gentry of the Three Kingdoms. (Uniform with Burke's Peerage and Landed Gentry). Royal 8vo., cloth. Price £2 12s. 6d.

General Orders for the Army. Published monthly.

German Empire. Armed Strength. Part I. Organisation and administration, compiled in the Intelligence Branch of the Quartermaster-General's Department, Horse Guards. By CAPT. F. C. H. CLARKE, D.A.Q.M.G. Royal 8vo., sewed. Price 8s. 6d.

Germany. Campaign of 1866 in Germany.

Compiled by the Department of Military History of the Prussian Staff. With 22 plans in portfolio, 2 vols., royal 8vo., cloth. Price 21s.

Gmelin's Organic Chemistry, translated and edited by HENRY WATTS, B.A., F.R.S. 12 vols., demy 8vo., cloth. Complete, price £4 4s. 0d., or separate vols. price 10s. 6d. each.

*** The desire to make this work generally available to British Chemists was one of the motives which originally contributed to the establishment of the "Cavendish Society."



Harrison and Sons, Publishers,

CSL

Gmelin's Inorganic Chemistry, translated and edited by HENRY WATTS, B.A., F.R.S. 6 vols., demy 8vo., cloth. *Some of these volumes are out of print.* A new edition of vols. 1 and 2, and a few copies of vols. 4, 5, and 6, can be had to complete sets. Price 10s. 6d. each.

Gmelin's Handbook of Chemistry. Index by HENRY WATTS, B.A., F.R.S. Demy 8vo., cloth. Price 14s.

Great Landowners of Britain, being a List of all owners of 3,000 acres and upwards, worth £3,000 a year, in England, Scotland, and Ireland; their acreage, income from land, college, club and services. Culled from the "Modern Domesday Book," by JOHN BATEMAN. Crown 8vo., cloth. Price 10s.

Guns. Handbook for Rifled Guns.

64-pr. R.M.L. converted gun of 58 cwt. Royal 8vo., sewed. Price 6d.

40-pr. Royal 8vo., sewed. New edition, 1876. Price 6d.

16-pr. R.M.L. gun of 12 cwt. New edition, 1877. Royal 8vo., sewed. Price 6d.

9-pr. R.M.L. gun of 8 cwt. New edition, 1877. Royal 8vo., sewed. Price 6d.

10-in. R.M.L. gun of 18 tons. 1876. Royal 8vo., sewed. Price 6d.

9-in. R.M.L. gun of 12 tons. 1876. Royal 8vo., sewed. Price 6d.

Gunnery Manual for Her Majesty's Fleet. 1877. Roan. Price 2s.

Gunpowder. Its Manufacture and Proof as carried on at the Royal Gunpowder Factory, Waltham Abbey. By CAPT. F. M. SMITH, R.A. Printed by Order of the Secretary of State for War. Royal 8vo., cloth. Price 5s.



GL

9, Pall Mall, and 1, St. James's Street, London. 17

Gunpowder. Short Notes on Gunpowder and its Manufacture, prepared for the use of the Gentlemen Cadets at the Royal Military Academy, by Captain H. GEARY, R.A., and Short Notes on Gunpowder and its Manufacture by Major W. H. WARDELL, R.A. 1877. Sewed. Price 1s.

Gymnastics. Military System of Gymnastic Exercises, with a System of Fencing for the use of Instructors, by ARCHIBALD MACLAREN, and a Series of Exercises for the Regulation Clubs, by LIEUT. ANDERSON, 64th Regiment. Crown 8vo., cloth. Price 2s.

Harmony. Treatise on, by ALFRED DAY. Royal 8vo. Price 12s.

Harris's Game and Wild Animals of SOUTHERN AFRICA, delineated from Life in their Native Haunts, during a Hunting Expedition from the Cape as far as the Tropic of Capricorn, with Sketches of the Field Sports, by CAPT. CORNWALLIS HARRIS. Large imperial folio, containing 30 highly interesting and beautifully coloured engravings, drawn on stone, by FRANK HOWARD. Half morocco extra, gilt edges. Published at Ten Guineas. Offered at £4 15s. net.

*** Messrs. Harrison have purchased the entire remainder of this work, of which a very few copies are left.

Hertslet's Map of Europe by Treaty, showing the various Political and Territorial Changes which have taken place since the General Peace of 1814. By EDWARD HERTSLET, C.B. With numerous Maps and Notes. 3 vols., royal 8vo., cloth. Price £4 14s. 6d.

*** "A work of considerable importance from a domestic and international point of view."—*Morning Post*.

*** "Mr. Hertslet merits the thanks of all statesmen and readers of political history . . . The 'Map of Europe' is a compilation of the highest order. No club, public office, or library should be without it. It is veritably an *opus magnum*, and we shall be surprised if a new edition is not soon called for."—*Hour*.

Hertslet's Treaties and Tariffs regulating the Trade between Great Britain and AUSTRIA, in force on the 1st January, 1875. Royal 8vo., cloth. Price 7s. 6d.



Harrison and Sons, Publishers,

CSL

Hertslet's Treaties and Tariffs regulating the Trade between Great Britain and **TURKEY**, in force on the 1st January, 1875. Royal 8vo., cloth. Price 15s.

Hertslet's Treaties and Tariffs regulating the Trade between Great Britain and **ITALY**, in force on the 1st June, 1876. Royal 8vo., cloth. Price 15s.

Hertslet's Treaties and Tariffs regulating the Trade between Great Britain and **CHINA**, in force on the 1st January, 1877. Royal 8vo., cloth. Price 15s.

Hertslet's Treaties, Laws, &c., relating to Commerce, Navigation, the Slave Trade, Postal Arrangements, Copyright, Extradition, Trade Marks, &c.; wherein are defined the Rights and Privileges of British Subjects Abroad, and of Foreigners in the British Dominions. Vol. 12. To which is added an Index of Subjects to the entire Series. 8vo., cloth. Price 40s.

Hertslet's Treaties.—An Index of SUBJECTS to the entire Series (12 vols.). Compiled by **EDWARD HERTSLET, Esq., C.B.**, Librarian and Keeper of the Papers of the Foreign Office. 8vo., on hick paper printed on one side only. Cloth. Price 10s.

Heylyn's History of the Reformation of the Church of England; with the Life of the Author, by **JOHN BARNARD, D.D.** Edited by the **REV. JAMES CRAIGIE ROBERTSON, M.A.**, of Trinity College, Cambridge. 2 vols. demy 8vo., cloth. Price 21s.

Historical Records of the British Army,
viz. :—

Foot Regiments : 42nd (Highlanders). Price 8s.

“ “ 1st and 3rd. Price 6s. each.

“ “ 2nd, 4th, 5th, 6th, 7th, 8th, 9th, 10th,

11th, 12th, 13th, 15th, 16th, 17th, 18th, 19th, 20th,

21st, 22nd, 23rd, 31st, 34th, 36th, 39th, 46th, 53rd,

67th, 71st, 72nd, 73rd, 74th, 86th, 87th, and 92nd

(Highlanders). Price 4s. each.



59, Pall Mall, and 1, St. James's Street, London. 19

CSL

Historical Records, &c., continued—

Foot Regiments: 14th, 56th, 61st, 70th, and 88th. Price 3s. each.

10th Dragoons. Price 6s.

Horse Guards. Price 5s.

17th Lancers. Price 5s.

Dragoon Guards: 2nd, 3rd, 4th, 5th, 6th, and 7th. Price 4s. each.

Dragoons: 9th, 12th, and 13th. Price 3s. each.

„ 1st, 2nd, 3rd, 6th, 7th, 14th, 15th, and 16th. Price 4s. each.

Cape Mounted Riflemen. Price 2s. each.

Marine Corps. Bound up with 31st Foot. Price 4s.

Hospital Training for Ladies. By the Right Honourable VISCOUNTESS STRANGFORD. 8vo., sewed. Price 1s.

India. Life or Death in India. By FLORENCE NIGHTINGALE. With an Appendix on Life or Death by Irrigation. Demy 8vo., sewed. Price 1s.

Infantry Sword Exercise. 1875. 12mo., limp cloth. Price 6d.

Iron Armour Plates, Penetration by Steel Shot. By CAPT. W. H. NOBLE, M.A., R.A.; to which is added a Memorandum on the Penetration of Iron-clad Ships by Steel and other Projectiles. With Plans. Fcap. folio, sewed. Price 2s.

Italy. Treaties and Tariffs. See under "Hertslet."

Italy. Armed Strength of Italy, Translated by LIEUT. W. A. H. HARE, Royal Engineers. Royal 8vo., sewed. Price 5s. 6d.

Japanese First Book for English STUDENTS. By JOHN O'NEILL. With Tables of the Japanese Hiragana and Katakana characters. 4to., sewed. Price 10s. 6d.



Harrison and Sons, Publishers,

CSL

Karens of the Golden Chersonese. By

LIEUT.-COL. A. R. McMAHON, F.R.G.S., Madras Staff Corps, Deputy-Commissioner British Burmah. With Map. Demy 8vo., cloth. Price 16s.

* * "The volume is intensely interesting. . . . The Author's personal observations, and his diligent studies of other men's writings, have enabled him to give us much fuller accounts than have ever yet been furnished, and as such is a valuable contribution both to circulating library literature, and to the more sober collections of geographers and antiquarians."—*Weekly Dispatch*.

"The author possesses a good knowledge of native character; his picture of the Karen tribes, enslaved and despised by their Burmese conquerors, is in striking contrast to his account of the free and fierce Red Karen untractable and inaccessible in his native mountain home."—*Athenæum*.

Kinloch's Large Game Shooting in Thibet

and the North-West. Containing description of the Country, and of the various Animals to be found, together with extracts from a journal of several years' standing, and Illustrated by Photographs of Heads and Horns, executed by the Photo-tint process. SECOND SERIES. Demy 4to., cloth gilt. Price 21s.

Ditto, ditto. First Series. Demy 8vo., cloth gilt. Price 21s.

* * "The Author compresses his adventures into a small space, and seems to have undergone all sorts of fatigue and exposure, in company with his wife, in a country not usually accessible to ladies; and he gives good advice as to the best means of curing and preserving skins and heads."—*Saturday Review*.

* * "This work will prove highly acceptable to sportsmen, for the Author not only explains where the game is to be found, the mode of travel, and the best seasons to hunt, but gives some well-executed photos of the large game. . . . -As a sportsman and a word-painter he is inimitable, and his work should be largely patronised."—*European Mail*.

"This is an attractive volume. . . . Captain Kinloch writes on all these subjects in a genuine and straightforward style, aiming at giving a complete description of the habits and movements of the game. . . . The full-page illustrations in this book are fine photographs taken from life, and add much to the value of this valuable work."—*British Mail*.

Landed Gentry of Great Britain AND

IRELAND. A RE-ISSUE of the Fifth Edition, with Supplement and AN ADDENDA. See under "Burke."

Landowners of Great Britain, &c. See

"Great Landowners."

Lehman's Physiological Chemistry, trans-

lated and edited by Dr. G. E. DAY, F.R.S. Vols. 2 and 3. Demy 8vo., cloth. Price 7s. each.

* * * Volume 1 of this work is out of print.



59, Pall Mall, and 1, St. James's Street, London. 21

CSL

Low's Breeds of Domestic Animals of

THE BRITISH ISLANDS, exemplified in numerous large and extremely accurate plates of the various breeds of the Horse, Ox, Sheep, and Hog, from drawings by Nicholson, after paintings by Shiels; containing 51 beautifully coloured plates, with history and descriptions of the various species of the larger domestic quadrupeds. 2 large volumes, imperial 4to., half morocco extra, gilt edges. Offered at £4 10s. net.

*** This fine work was published at 16 guineas, and the very few copies in Messrs. Harrison's possession are all that remain.

Martini-Henry Rifle, Manual and Firing Exercises. New edition. 1876. Sewed. Price 3d.

Masonic Points; or, Authorised Cues in the Masonic Rituals of the E.A.F.C. and M.M. Degrees, and of those in the Holy Royal Arch. By Brother JADU. Compiled and published according to the working of the principal Lodges in England, to assist the memory on the most salient points of the working of the Masonic Order. SECOND EDITION. Limp. Price 1s. 6d.

Mathematical Reports. Test Book for Military Students; containing the Line Mathematical Reports for Direct Commissions from 1858, and Sandhurst from 1860 to 1864, with Answers by E. MAYER, Military Tutor, &c. Fcap. 8vo., cloth. Price 3s. 6d.

Maude; or, The Anglican Sister OF MERCY. Edited by Miss WHATELY, Author of "The Life of Archbishop Whatley." This is an authentic Narrative, in which Miss WHATELY gives a detailed account of every-day life in an Anglican Sisterhood, with Original Letters, which enable us to judge impartially and fairly of the principles which govern these Institutions. It is a work peculiarly important at the present time. New and cheaper Edition. Post 8vo., cloth. Price 2s. 6d.

Medical Regulations for the Army Hospital Corps. Royal 8vo., cloth. Price 9d.



Harrison and Sons, Publishers,

CSL

Metrical Hymns, for the Christian Year, for Congregational Use, reprinted in a small volume, from the "PARISH CHOIR." Neatly bound in leather, Price 1s.; or in cloth, 10d.

Metrical Tunes for Congregational Use, for Unison or Harmonized Singing. This collection consists of Seventy-four Tunes of the most simple kind, with a Table showing the number of seconds to be occupied in singing once through each tune. 12mo., cloth. Price 2s.

Military Carriages. Treatise on Military Carriages and other Manufactures of the Royal Carriage Department. By CAPTAIN W. KEMMIS, R.A. New edition, 1877. Royal 8vo., cloth. Price 5s.

Military Engineering: Instructions in Military Bridges. 8vo., sewed. Price 4s.

Military Examinations. Examination Papers set at the Open Competitions for admission to the Royal Military Academy, Woolwich, and for Cadetships at the Royal Military College, JULY, 1877, together with Regulations and Tables of Marks. Price 1s. 6d.

Ditto, DECEMBER, 1876. Price 1s. 6d.

Ditto for admission to Royal Military Academy, and for First Appointments to the Army, held in JULY, 1876, with Regulations and Tables of Marks. Price 1s. 6d.

Militia Orders. Published annually.

Musketry. Annual Report of the SCHOOL OF MUSKETRY AT HYTHE. Royal 8vo., cloth. Price 2s. each.

Musketry Text Book. See "Projectiles."

Naval. On the State of the British Navy, with Remarks on one branch of Naval Expenditure. By ADMIRAL SIR R. SPENCER ROBINSON, K.C.B., F.R.S. Sewed. Price 1s.



59, Pall Mall, and 1, St. James's Street, London. 23

GL

Navigation and Nautical Astronomy;

containing Practical Rules, Notes, Examples, and Appendix, giving Explanations and Proofs of the Rules. By the Rev. R. M. INSKIP, C.B., H.M.S. "Britannia," with Diagrams. Demy 8vo., cloth. Price 6s. 6d.

Navy. Queen's Regulations and Admiralty Instructions, 1862. Post 8vo., cloth. Price 1s. 9d.

Netherlands. Armed Strength of the Netherlands. By CAPTAIN F. C. H. CLARKE, R.A., D.A.Q.M.G. With Map. Royal 8vo., sewed. Price 4s.

Nightingale's Notes on Nursing: What it is, and what it is not. By FLORENCE NIGHTINGALE. *New Edition.* Demy 8vo. limp cloth. Price 2s.

"We have never read any book on any subject on which so much is said, and said so well in a shorter space. . . ."—*Times*. "These 'Notes' are addressed to women, and every woman in the country ought to read them."—*Daily News*.

Nightingale's Notes on Nursing, FOR THE LABOURING CLASSES. By FLORENCE NIGHTINGALE. Fcap, 8vo., sewed. Price 6d.

*** This edition contains a Chapter devoted to "Minding Baby."

Nightingale's Life or Death in India.

With an Appendix on Life or Death by Irrigation. Demy 8vo., sewed. Price 1s.

Ophthalmic Manual of Instructions by SURGEON-GENERAL T. LONGMORE, C.B. *New Edition.* Demy 8vo., cloth. Price 1s.

Ordnance. Treatise on the Construction and Manufacture of Ordnance in the British Service, prepared in the Royal Gun Factory, with numerous Woodcuts. *Printed by order of the Secretary of State for War, April, 1877.* Royal 8vo., cloth. Price 18s.



Harrison and Sons, Publishers,

CSL

Ordnance Store Department, Regulations,
1876. 8vo. cloth. Price 1s. 6d.

Overland Route. See "England to Calcutta."

Parish Choir, or Church Music Book.

Containing plainly written *Illustrations of the Common Prayer Book*; Hints to Clergymen desirous of forming *Choirs*, or of improving the Singing in their Churches; Plain Instructions in Chanting; Familiar Explanations of the Choral or Cathedral Service; Remarks upon Daily Prayer; Practical Hints on Congregational Psalmody; Lessons in Singing; Village Lectures on Psalmody and Singing; Music for the Church Service complete; a Series of Metrical Psalm Tunes; the Gregorian Tones; Anthems by Goldwin, Okeland, Haselton, Weldon, Batten, Rogers, Aldrich, &c., &c. In Three Volumes, royal 8vo. cloth, price 21s. Separate Volumes—Vol. I, price 9s., Vol. II., price 7s. 6d., and Vol. III, price 9s.

"These volumes not only contain a large collection of the very best Music of the Church, but an immense amount of practical information, sound criticism, and suggestions adapted for every one who takes any part or interest in the revival of Church Music."—*English Churchman*.

Parker.—Life of Sir William Parker,

Bart., G.C.B. (Admiral of the Fleet), First and Principal Naval Aide-de-camp to Her Majesty, &c., from 1781 to 1866. By REAR-ADMIRAL AUGUSTUS PHILLIMORE, with History of the Parker Family, &c. (To be completed in Two Volumes.) Volume I, Demy 8vo., cloth. Price 16s.

"* * This is a delightful book, as full of adventure and interest as one of Marryat's novels, yet written without any affectation or exaggeration. We shall look forward with much interest to the appearance of the second volume of this very valuable and most interesting biography."

—*Vanity Fair*.

"The chief value of this important biography seems to us that it shows, in a clear light, the state of the Navy at a most critical epoch."—*Civil Service Gazette*.

"The volume, embracing as it does, with a wonderful life and vividness, the dashing cutting-out exploits and boat actions in the most exciting and interesting period of the history of the British Navy, will be enjoyed by every one."—*Standard*.

"This eventful life is full of interest and instruction. Admiral Phillimore, as biographer, has executed his labours well—it is worthy to take its place with Southey's Life of Nelson."—*Hour*.



59, Pall Mall, and 1, St. James's Street, London. 25

SL

Peerage, Baronetage, &c., for the present year. By SIR BERNARD BURKE, C.B., L.L.D., Ulster King of Arms. Containing in addition the Privy Counsellors, Knights of various Orders, and Knights Bachelors, with a record of their Families. This edition also gives the names of the various Clubs to which the members of the Nobility belong. Royal 8vo. cloth gilt. Price 38s.

* * "It is the only work which records the ancient history of those great houses whose heads and members fell in such numbers in the Wars of the Roses, and under the Tudor and Stuart sovereigns.

We have subjected the work to a somewhat searching ordeal, and we are bound to add that it comes out of it only to confirm our previous impressions as to the accuracy and fidelity with which the Editor has performed his task."—*Times*.

"It not only supplies full information concerning living persons of title, but also furnishes complete particulars of their lineage."—*Graphic*.

Peerages, Extinct. By Sir BERNARD BURKE.
—See under "Burke."

Post Hiems Ver. A Novel. By ADA MONTAGUE.
Crown 8vo., cloth.

Prescriptions for use in Military Hospitals, April, 1865. Price 1s.

Projectiles.—Text Book on the Theory of the Motion of PROJECTILES; the History, Manufacture, and Explosive Force of Gunpowder; the History of Small Arms; the Method of conducting Experiments; and on Ranges; for the use of Officers at the Schools of Musketry. New and revised edition, 1877, with plates. Crown 8vo., cloth. Price 1s. 6d. Interleaved 2s.

Prussian Infantry. Elementary Tactics. Translated by LIEUT. E. BARING, R.A. Sewed. Price 2s.

P.S. How to obtain the P.S. Comprising the full course of Examination at the School of Instruction, with the latest Additions and Corrections. By HENRY R. W. LUMSDEN. Price 1s.

"This little manual cannot fail to prove practically useful to those whom it is intended to instruct, and will doubtless be claimed as a *vade mecum* by all aspirants for the P.S."—*Army and Navy Gazette*.



Harrison and Sons, Publishers,

CSL

Punctuation: How to stop, and When

TO STOP. Punctuation reduced to a System. By WILLIAM DAY. Seventh Edition, limp cloth. Price 1s.

"Having read this book with some care, we must not omit to say, that its success is, in our opinion, well deserved. It fairly fulfils the promise of its title."—*Globe*. "This work is admirably adapted to correct defective punctuation."—*Observer*.

Queen's Regulations and Orders for the Army,

January, 1873. Royal 8vo., cloth. Price 3s. 6d. Interleaved 5s. 6d. Pocket Edition 1s.

Queen's Regulations and Admiralty Instructions for the Navy, 1862.

Post 8vo., cloth. Price 1s. 9d.

Recruiting. Letters on Recruiting, and on the Appointment, Promotion, and Retirement of Officers.

Re-published from the "Times" and "Spectator," as a contribution to the construction and discussion of the Army Estimates for 1877. Sewed. Price 6d.

Regulation Clubs, Series of Exercises,

with Diagrams. By LIEUT. ANDERSON, 64th Regt. July, 1863. Price 3d.

Regulations respecting Examinations

for admission to the Royal Military College, and for First Appointments therefrom to the Army. November, 1876. Sewed. Price 1d.

Rifle Exercises and Musketry Instruc-

TION. An Appendix to the Field Exercise. Pocket Edition. Price 1s.

Rifled Ordnance in the British Service.

A Text Book of the Construction and Manufacture. 2nd Edition. Royal 8vo., sewed. Price 3s. 6d. Boards 4s. 6d.

— See also "Ordnance."

Royal Families. See "Burke."



CSL

59, Pall Mall, and 1, St. James's Street, London. 27

Royal Warrant Regulating First Appointments, Regimental Promotion, &c., in the Army, with Explanatory Memorandum, General Order and Appendices. Sewed. Price 2d.

Russia, Armed Strength. Translated from the German. Royal 8vo., sewed. Price 7s.

Sappers' Manual, compiled by CAPTAIN W. A. FRANKLAND, R.E. Illustrated. Demy 16mo., leather, with clasp. Price 2s.

Signal Book, Army and Navy. See Army and Navy.

Signalling. Manual of Instructions in Army Signalling, with numerous Diagrams. Horse Guards, 1876. Sewed. Price 6d.

Statute Law Relating to the Army. Selected and arranged by CHAS. M. CLODE, Esq., Barrister-at-Law and Legal Secretary to the War Department. Royal 8vo., sewed. Price 1s. 6d.

Steppe Campaigns. Translated by CAPT. F. C. H. CLARKE, R.A. Royal 8vo., sewed. Price 2s.

Stores. Priced Vocabulary of Stores provided by the Control Department, Clothing excepted. 1875. Price 4s.

Strype's Memorials of Archbishop Cranmer. Edited by the REV. JOHN JEBB, M.A., Rector of Peterstow, with Appendix. 3 vols., demy 8vo., cloth. Price £1 13s.

Stubb's Anatomy of the Horse. Consisting of 24 very large copper-plate engravings from Nature, including a particular description of the bones, cartilages, muscles, ligaments, nerves, veins, &c., &c. "*An invaluable work for artists, sculptors, &c.*" Imperial folio, cloth extra. Originally published at Four Guineas; offered at 14s. net.
*** Only a few copies remaining.



Harrison and Sons, Publishers,

CSL

Sweden and Norway. Armed Strength.

Compiled by CAPT. W. S. Cooke. Royal 8vo., cloth.
Price 3s. 6d.

Tactical Studies of the Battles of Columbey, Nouilly and Vionville. Compiled and arranged from the official accounts by MAJOR LONSDALE A. HALE, R.E. With Maps. Royal 8vo., sewed. Price 4s. 6d.

Tactics. By CAPTAIN LAYMANN, 49th (Pomeranian) Infantry Regiment. From the German, 1869. Sewed. Price 1s.

Trade Marks. Rules under the Trade Marks Registration Act, 1865, made by the Lord Chancellor. Sewed. Price 1s.

Transport of Sick and Wounded Troops. Treatise by DEPUTY INSPECTOR-GENERAL T. LONGMORE, C.B., illustrated by nearly 200 Woodcuts. Royal 8vo., cloth. Price 5s.

Transport of Troops by Railway. Regulations. Royal 8vo., sewed. Price 3d.

Trials. Celebrated Trials connected with the Upper Classes of Society in the Relations of Private Life. By PETER BURKE, Esq., of the Inner Temple, Barrister-at-Law. 8vo., cloth. Price 16s.

Trigonometry. Plane and Spherical, Theoretical and Practical. By A. C. JOHNSON, M.A., with Diagrams. Fifth Edition, Demy 8vo., limp cloth. Price 6s.

Trumpet and Bugle Sounds for Mounted Services and Garrison Artillery ; with Instructions for the Training of Trumpeters. Post 8vo., cloth. Price 1s. 6d.

Turkey. Treaties and Tariffs. See "Hertslet."



59, *Pall Mall*, and 1, *St. James's Street*, London. 29

CSL

Uniforms to be worn by Her Majesty's CIVIL SERVANTS at Home and in the Colonies. Published by Authority. Folio, cloth. Price 21s.

Uniforms to be worn by the QUEEN'S HOUSEHOLD. Published by Authority. Folio, cloth. Price 21s.

Useful Tables. See "Artillery."

Volunteers. Mounted Rifle, or Volunteer Irregular Cavalry; Manual of Drill, with Diagrams. By LIEUT.-COLONEL BOWER, 1st Hants Mounted Rifle Volunteers. Post 8vo., cloth. Price 1s. 6d.

Vyner's Notitia Venatica. A Treatise on Foxhunting, the General Management of Hounds, and the Diseases of Dogs, Distemper and Rabies, Kennel Lameness, &c., &c., by ROBERT C. VYNER; with spirited Coloured Illustrations by ALKEN. Royal 8vo., cloth gilt. Published at 21s., offered at 12s. net.

* * Only a few copies of this work remain.

War Game. Rules for the conduct of the War Game. By CAPTAIN E. BARING, Royal Artillery. Sewed. Price 2s.

War Office List for the Present Year. Compiled by DENHAM ROBINSON. Demy 8vo., sewed. Price 4s. 6d.

Watch, Station, Quarter and Fire Bills. Pocket edition, No. 2 size, Price 2s. 6d. No. 3 size, Price 2s.

Wood. Life of Anthony A. Wood, M.A., Historiographer and Antiquarie of Oxford, 1603-1695. written by himself. Edited by the REV. PHILIP BLISS, D.C.L. Demy 8vo., cloth. Price 10s. 6d.

Words of Command employed in Manœuvring a Regiment of Cavalry, a Battalion of Infantry, and a Battery of Artillery. By CAPT. H. W. L. HIME, R.A. Demy 8vo., sewed. Price 2s.



Harrison and Sons, Publishers,

CSL

IMPORTANT REMAINDERS.

Harris's Game and Wild Animals of

SOUTHERN AFRICA, delineated from Life in their Native Haunts, during a Hunting Expedition from the Cape as far as the Tropic of Capricorn, with Sketches of the Field Sports, by CAPT. CORNWALLIS HARRIS. Large imperial folio, containing 30 highly interesting and beautifully coloured engravings, drawn on stone, by FRANK HOWARD. Half morocco extra, gilt edges. Published at Ten Guineas. Offered at £4 15s. net.

*** Messrs. Harrison have purchased the entire remainder of this work, of which a very few copies are left.

Low's Breeds of Domestic Animals of

THE BRITISH ISLANDS, exemplified in numerous large and extremely accurate plates of the various breeds of the Horse, Ox, Sheep, and Hog, from drawings by Nicholson, after paintings by Shiels; containing 51 beautifully coloured plates, with history and descriptions of the various species of the larger domestic quadrupeds. Two large volumes, imperial 4to., half morocco extra, gilt edges. Offered at £4 10s. net.

*** This fine work was published at 16 guineas, and the very few copies in Messrs. Harrison's possession are all that remain.

Stubb's Anatomy of the Horse. Consisting

of 24 very large copper-plate engravings from Nature, including a particular description of the bones, cartilages, muscles, ligaments, nerves, veins, &c., &c. "*An invaluable work for artists, sculptors, &c.*" Imperial folio, cloth extra. Originally published at Four Guineas; offered at 14s. net.

*** Only a few copies remaining.



CSL

59, Pall Mall, and 1, St. James's Street, London. 31

IMPORTANT REMAINDERS—*continued.*

Foxhunting.—Vyner's Notitia Venatica.

A Treatise on Foxhunting, the General Management of Hounds, and the Diseases of Dogs, Distemper and Rabies, Kennel Lameness, &c., &c., by ROBERT C. VYNER; with spirited coloured illustrations by ALKEN. Royal 8vo., cloth, gilt. Published at 21s.; offered at 12s.

*** Only a few copies of this work remain.

Burgoyne, Field Marshal Sir John:

his LIFE and CORRESPONDENCE. Comprising Extracts from his Journals during the Peninsular and Crimean Wars; Letters of the Duke of Wellington, Marquis of Anglesey, Lords Hardinge, Palmerston, and Herbert, Sir Robert Peel, Lord Raglan, Omar Pacha, and many other celebrated men. Also the Private and Official Correspondence of Sir John Burgoyne during the Crimean War. Edited by LIEUTENANT-COLONEL the HON. GEORGE WROTTESLEY, R.E. Two volumes, 8vo., with Portrait. Published at 30s.; offered at 7s. 6d. net.

*** Messrs. Harrison have purchased the only few remaining copies of this interesting work.

NOTICE.

A List of New Purchases, including "REMAINDERS OF VALUABLE AND IMPORTANT WORKS" in all Branches of Literature, now offered at exceeding low prices for Cash, post free on application.

ALSO,

A SELECTED LIST of ILLUMINATED AND ILLUSTRATED BOOKS, SUITABLE FOR PRESENTS, including a great Variety of CHILDREN'S BOOKS, offered at *specially reduced prices*, many at less than half their published prices.



BY APPOINTMENT

TO

Her Majesty

AND

H.R.H. the Prince of Wales.



CSL

HARRISON & SONS,

Publishers, Booksellers, & Stationers.

GOVERNMENT BOOKS.

NOTICE.—Messrs. HARRISON are Publishers by Appointment of all the Works issued by authority of the Government, including all Books relating to the Army and Navy.

MILITARY AND CIVIL EXAMINATIONS.

INFORMATION respecting the above, together with the latest Regulations, Dates, and Subjects, for the coming Examinations, and a List of the best Works suitable for the use of Candidates, supplied free of charge.

BOOKS, INSTRUMENTS, &c., supplied to Tutors and Candidates at a Liberal Reduction from the Published Prices.

EXAMINATION PAPERS set at the Open Competition for Admission to the Royal Military Academy, Woolwich, and for Cadetships at the Royal Military College, July, 1877, together with the Regulations and Table of Marks. Just published. Price 1s. 6d.; free by post, 1s. 8d.

LONDON :

59, PALL MALL, AND 1, ST. JAMES'S STREET, S.W.

PRINTING OFFICES :

45 & 46, ST. MARTIN'S LANE, AND 15 & 16, GT. MAY'S BUILDINGS, LONDON, W.C.

(22 | 10 | 77)