**Indian Medical Service past and present.**

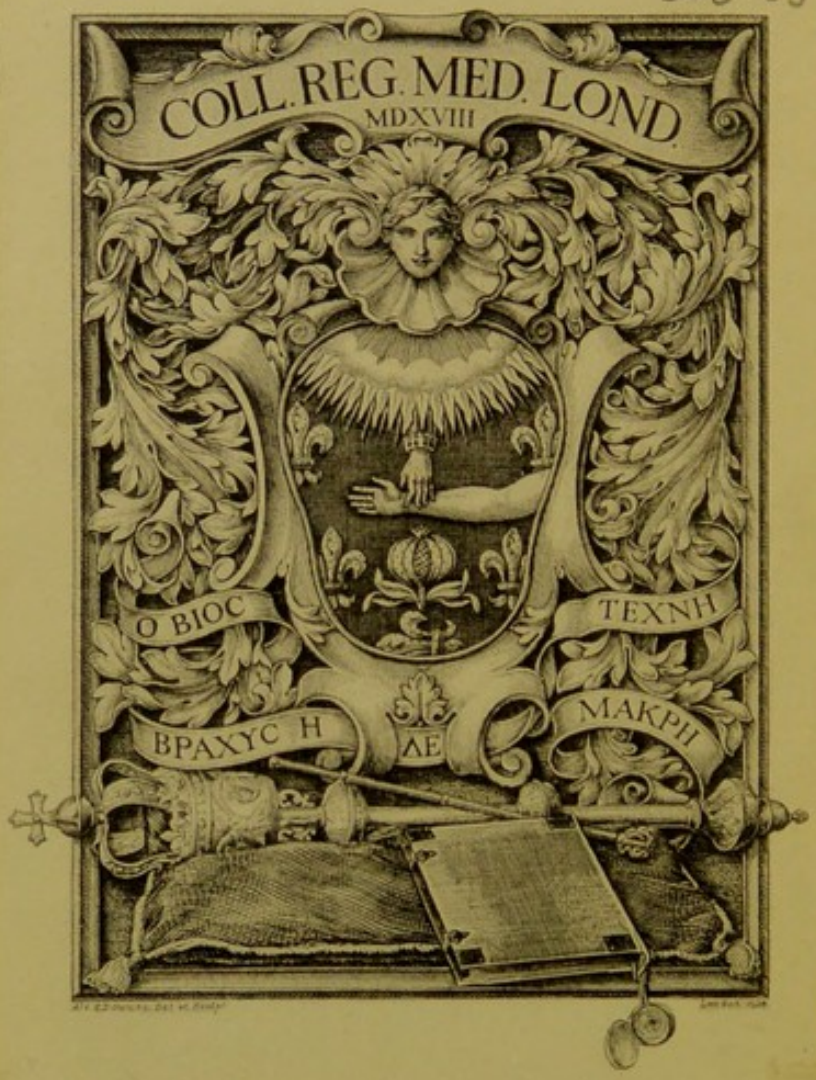
# INDIAN MEDICAL SERVICE

## PAST & PRESENT.

SECOND EDITION.

BY

SURGEON GENERAL W. B. BEATSON M. D.



With the Authors compliments

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*PAST AND PRESENT*

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*SECOND EDITION, REVISED AND SUPPLEMENTED*

BY

SURGEON-GENERAL W. B. BEATSON

M.D., M.R.A.S., F.R.C.P. LOND.

(LATE DEPUTY SURGEON-GENERAL, LAHORE DIVISION)

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1902-3

IN MEMORIAM

AMICITIÆ QUINQUAGENAM HOC MEUM OPUSCULUM DEDICO

SOCIO DILECTISSIMO

SIR JOSEPH FAYRER, BARONET,

K.C.S.I., LL.D., M.D. EDIN., F.R.S., K.H.P.,

PHYSICIAN EXTRAORDINARY TO THE KING, SURGEON-GENERAL, LATE PRESIDENT MEDICAL BOARD INDIAN OFFICE, ETC.

W. B. B.

*Eastbourne*, 1903.

## ERRATA, PART I.

Page 6, line 3, *for* 'India' *read* 'East Indies.'
Page 7, line 37, *for* 'Robert' *read* 'William.'
Page 15, line 22, *for* '1607' *read* '1609.'
Page 15, lines 24-26, *omit words after* 'James I.'; *insert* 'an Ambassador (Sir Thomas Roe) to the Great Moghul Jehangir.'
Page 17, line 31, *for* 'Mr. Boughton' *read* 'Master Humphrey Boughton (a private traveller, who died two months after landing at Surat. See "Embassy of Sir Thomas Roe," by W. Foster, B.A.; London, 1899).'
Page 21, line 33, *for* 'Powell' *read* 'Pepwell.'
Page 24, line 2, *for* 'Scourge' *read* 'Dragon.'
Page 35, line 19, *for* '1757' *read* '1756.'
Page 35, line 23, *for* 'Bombay' *read* 'Madras.'

# PREFACE.

J. Z. HOWELL, the hero of the Black Hole of Calcutta, published in 1766 a volume of "Interesting Historical Events Relative to the Provinces of Bengal and the Empire of Indostan."

The book is dedicated to the Right Honourable Charles Townsend, Esq., and is prefaced with the following preliminary discourse: "When a man, excited by an irresistible and laudable impulse for the good of his country, *first speaks* before an August Assembly, he feels a certain kind of dread, awe, and trepidation, which he finds himself unable to conquer, especially if he has not been used to speak in public, or perchance possesses some share of modesty in his composition. Thus, I conceive, it fares with every considerate author on his first appearance before that August Assembly, THE PUBLIC.

"In this plight I felt myself in the year 1758, when I exhibited to you a scene of unparalleled horror and distress, which I judged not unworthy a place in your annals. Justice, and the necessity of the times, lately urged my second appearance, and obliged me to draw my pen in defence of injured worth and character; but now, by use and indulgence grown bolder (a very common case), I present myself before you of my own voluntary choice.

"Independency and a pleasing retirement, however *delectable* in themselves, have yet their seasons of *vacancy* and *leisure* that may want filling up. And happy ought that man to esteem himself who can employ those *voids* and *blanks* in time to the emolument or even literary amusement of mankind.

"Such is my situation, and such are my motives, for taking up the pen again. Motives so laudable in themselves will, I trust, engage the candour and indulgence of my readers for any defects in the following performance.

"The *East Indies*, and particularly *Bengal*, are now become so important an object and concern to *Great-Britain* that every elucidation thereof must, I think, be acceptable that is founded on facts, just observations, and faithful recitals.

* * * * *

"Having thus set forth my real motives for taking up the pen again, and opened the plan of my intended work, I shall here close this preliminary discourse: the favourable acceptance of my labours by the candid public is all the recompense hoped, or wished for, by their

"Obedient humble servant,

"J. Z. HOLWELL."

(*True Extracts.*

W. B. B.)

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1902

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# INDIAN MEDICAL SERVICE: PAST AND PRESENT.

By Surgeon-General W. B. Beatson, M.D., M.R.A.S.,
Late Deputy Surgeon-General, Lahore Division.

## Early Writers and Explorers.

The originators of the existing Government Medical Service in India must be sought for among the English adventurers who, during the latter part of the sixteenth century, followed in the footsteps of European traders, who were the geographical discoverers of the period.

Their romantic stories, especially those of the Mandevilles and the glowing accounts of the riches of the "gorgeous East" brought home by travellers who followed in the footsteps of the Portuguese, attracted in course of time the attention of English merchants towards India, and led English monarchs to seek alliance with the Princes of India. Our Henry VIII., our Queen Elizabeth, and her cousin James VI. sent Ambassadors to Akbar, the greatest and most enlightened of the Moghul Emperors of India.

Companies of European merchants trading to the East became established, and between the years 1610 and 1620 both Dutch and English were permitted to establish factories at Surat, very much to the disgust of the Portuguese, who had been settled on the Western Coast of India for nearly a century.

In 1638 a young gentleman of Holstein named Albert de Mandelslo, paid a visit to Surat, and found both the Dutch and English Presidents living in state in large houses like palaces, the senior merchants being furnished with chambers in the same mansions.

"Whenever the President went abroad, a banner was carried before him, and he was followed by merchants on

horseback, as well as by native attendants armed with swords, bucklers, bows and arrows."*

With all this assumption of regal state, a Medical Service seems not to have been at first thought of, but the necessity for one must soon have become apparent, for the company of merchants trading to the East must have soon begun to suffer from the pestilential nature of the climate and the too great conviviality of their habits.

In the time of Mandelslo there was no Government Medical Service in India, but the elements of one were in existence, to be in due time brought into organization.

Medicine itself, in Asia and everywhere else, was in a state of chaos, and had to form line with other sciences in their march towards improvement.

In 1674 Surat was visited by John Fryer, a surgeon in the service of the East India Company. Fryer was a doctor of medicine, having graduated at Cambridge in 1671, and entered the Company's service in 1672. As a travelling physician he passed ten years in India and Persia, but not till sixteen years after his return to England could he be persuaded to publish an account of his wanderings. Doubtless he was painfully impressed by the miserable condition in which he found his countrymen in India before a true science of medicine was known or sanitation thought of.

These pioneers of civilization no doubt suffered much on their long and tedious voyages in ill-found and badly victualled ships, but greater dangers attended them on landing. The greatest of all was the pestilential nature of the climate, the absence of pure water, and the want of skilled medical assistance.

Living, as they must have lived, in low-lying districts and ill-kept cities, exposed to abundant filth emanations, tormented by the bites of mosquitoes, as infectious—if not more so—than those of the present day, the wonder is that they did not all perish from malignant tropical diseases.

* Talboys Wheler, "Early Records of India."

Fryer, who, as before said, visited Surat and Bombay in 1674, says of the latter place: "There are no fresh-water rivers or falling streams of living water; the water drunk is usually rain-water preserved in tanks, which decaying, they are forced to dig wells in which it is strained, hardly leaving its brackish taste; so that the better sort have it brought from Massegong, where is only one fresh spring." After describing the districts lying on the "back side of the towns of Bombay and Mayim," the same writer says: "Under these uplands the washes of the sea produce a lunary tribute of salt left in pans or pits made on purpose at spring tides for the overflowing, and when they are full are incrusted by the heat of the sun."

"In the middle, between Parell, Mayim and Bombay, is a hollow wherein is received a breech running at three several places, which drowns 4,000 acres of good land yielding nothing else but samphire; athwart which from Parell to Mayim are the ruins of a stone causeway made by penances."

"The people that live here are a mixture of most of the neighbouring countries, most of them fugitives and vagabonds, no account being here taken of them. Others perhaps invited hither (and of them a great number) by the liberty granted them in their several religions, which are solemnized with a variety of fopperies (a toleration consistent enough with the rules of gain), though both Moors and Portuguese despise us for it, here licensed out of policy, as the old Numidians to build up the greatest empire in the world. Of these one among another may be reckoned 60,000 souls; more by 50,000 than the Portuguese ever could. For which number this island is not able to find provisions, it being most of it a rock above water, and of that which is overflowed little hope to recover it."

"However, it is well supplied from abroad both with corn and meat at reasonable rates, and there is more flesh killed here for the English alone in one month, than in

Surat for a year, for all the Moors in that populous city. The Government now is English; the soldiers have martial law, the freemen common; the chief arbitrator whereof is the President, with his Council at Surat; under him is a Justiciary, and Court of Pleas, with a Committee for regulation of affairs and presenting all complaints. The President has a large commission and is Vice-Regis; he has a Council here also, and a guard when he walks or rides abroad, accompanied by a party of horse which are constantly kept in the stables either for pleasure or service. He has his chaplains, physicians, surgeons and domestics; his linguist and mint-master. At meals he has his trumpets usher in his courses, and soft music at the table; if he move out of his chamber, the silver staves wait on him; if downstairs, the guard receives him; if he go abroad the Bandarines and Moors under two standards march before him."

"He goes sometimes in his coach drawn by large milk white oxen, sometimes on horseback, other times in palankeens carried by *Cohors* (Mussulman porters); always having a Sumbrero of state carried over him, and those of the English inferior to him have a suitable train. But for all this gallantry I reckon they walk but in charnel-houses, the climate being extremely unhealthy; at first thought to be caused by rotten fish (*Bubsho*), but though that be prohibited, yet it continues as mortal; I rather impute it to the situation which causes an infecundity in the earth and a putridness in the air, what being produced seldom coming to maturity, whereby what is eaten is undigested; whence follows fluxes, dropsy, scurvy, barbiers (which is an enervating of the whole body, being neither able to use hands or feet), gout, stone, malignant and putrid fevers, which are endemial diseases; among the worst of these Fool-Rack, brandy made of blubber, or Carvil, by the Portuguese, because it swims always in a blubber, as if nothing else were in it; but touch it and it stings like nettles; the latter because sailing on the waves it bears up like a

Portugal Carvil; it is, being taken, a jelly, and distilled, causes those that take it to be fools."

"Notwithstanding this mortality to the English, the country people and naturalized Portugals live to a good old age, supposed to be the reward of their temperance; indulging themselves neither in strong drinks nor devouring flesh as we do. But I believe we are here as exotic plants brought home to us, not agreeable to the soil; for to the lustier and fresher, and oftentimes the temperatest the clime more unkind; but to old men and women it seems to be more suitable."

Such a "mixed people" as those above described must have stood sore in need of sanitation to redress their clime, and of medicine to heal their sickness. Relief could be brought to them only by a well-organized and steadily maintained Government Medical Service. The necessity for such a service became evident when the English began to send merchants to the markets and Ambassadors to the Courts of the Princes of India.

## Early Ships and Chirurgeons of the East India Company.

The ships that brought the merchants came at first from England annually, and in small numbers. Between 1607 and 1609 there arrived only two, the *Hector* and the *Ascension*, commanded respectively by Captains Hawkins and Alexander Sharpeigh. In 1615-16 came the *Expedition*, the *Dragon*, *Lyon*, and *Peppercorn*, which brought Sir Thomas Roe. This fleet was commanded by Keeling, and its voyage was described by Walter Payton, captain of the expedition. The ships that arrived in 1616, and sailed under the command of Captain Joseph, were the *Charles*, the *Unicorn*, the *James*, and the *Globe*.*

By a treaty concluded between the Dutch and English East India Companies at London on July 17, 1619, after a

* Orme.

tedious interchange of hostilities, the English were bound to send a fleet of ten ships to India, but in 1621-22 they were able to fit out only four. In the year 1624-25 the Company's voyage to India consisted of five ships, in 1625-26 of six, and in 1626-27 of seven. Some of them went into the Persian trade, and some into the Dutch East Indies. Their trade was not by any means prosperous under the caprice and extortions of the Persian magistrates.

In 1628-29, the English Company sent out five ships, three for the Persian, two for the Indian trade, and it is probable that, having regard to the sickness and mortality hitherto prevalent, the Company took greater care in the equipment of their vessels, and provided them with the most highly qualified medical officers procurable.

Some of the medical officers, it is said, were eagerly consulted by the rich Muhammadans of Surat and other places in the neighbourhood of the factories, and their fame was spread abroad till it reached the Courts of the Moghul Princes. It is further said that in the year of the Hijra 1046 (*i.e.*, A.D. 1636-37), a daughter of the Emperor Shah Jehan having been dreadfully burnt by her clothes catching fire, an express was sent to Surat through the recommendation of the Wazir Assad Khan to desire the assistance of a European surgeon.

For this service the Council at Surat nominated Mr. Gabriel Boughton, surgeon of the ship *Hopewell*, who it is said immediately proceeded to the Emperor's camp, then in the Deccan, and had the good fortune to cure the young Princess of the effects of her accident. Mr. Boughton, in consequence, became a great favourite of the Court, and having been desired to name his reward, he, with that liberality which characterizes Britons, sought not for any private emolument, but solicited that his nation might have liberty to trade, free of all duties, to Bengal, and to establish factories in that country.

The above portion of the story of Gabriel Boughton and

the burnt Princess is extracted from Stewart's "History of Bengal." Stewart probably got it from a series of Company's letter-books containing the communications of the Court to their agents in India, and to their ship-captains, as preserved in the India Office, but these do not commence till 1653, and the first letter sent direct to Bengal is dated no earlier than February 27, 1658, and is addressed "to our Agent and Factor at Hughly."*

Colonel Dow, who published a history of Hindustan in 1772, gives a different account of the accident to the Princess, and of the manner in which it was treated. Dow derived his information from Ferishta, a Persian, one of the most esteemed writers of Hindustan, of noble rank and high office at the Court of Ibrahim 'Adil, Shah of Beejapore, one of the Sultans of the Deccan.

According to Dow, in the year 1642-43, the Emperor Shah Jehan determined to remove his Court from Lahore to Agra, where he arrived in the month of November. The cavalcade which attended his progress was magnificent and numerous beyond description. The armies returned from the north were in his train, and half the citizens of Lahore, who, from his long residence in that place, were become, in a manner, his domestics, accompanied him on his march.

He pitched his tents in the garden of his favourite wife Mumtaz-i-Zeman, under shade of the cypresses surrounding the splendid mausoleum he had erected to her memory. Here he had endowed with lands a monastery of fakirs, whose business it was to take care of her tomb, and to keep for ever burning the lamps over her shrine. Nothing happened during nine months after the Emperor's arrival at Agra. Public business, which had been neglected through the alarm of the Persian war, received now too little attention. The Dewan-i-'Amm was neglected. The Emperor retired too frequently to the seclusion of the

* Taken from Journal of Robert Hedges, as published by the Hakluyt Society.

zenana, too often neglected to attend to the execution of justice. But presently a son was born to Dārā the Imperial Prince. Shah Jehan, who loved his son, gave a magnificent festival on the occasion. His posterity began to multiply apace. A son was born to Aurangzeb, whom he named Muhammad Mauzim, and Murad had this year a daughter whom he called Zeb-un-Nissa, or the ornament of women. Dārā was seized with a violent fever which endangered his life. The Emperor's alarm for him had scarcely subsided when a dreadful accident happened to his eldest daughter, whom he loved above all his children.*

Tavernier has recorded that this daughter, named Jehan Ārā, or the Begum Sahibeh, was very beautiful, a great wit, and greatly beloved by her father. He had so great a confidence in her that he had given her charge to watch over his safety, and to have an eye to all that came to his table. And she knew perfectly how to manage his humour, and ever in the most weighty affairs to bend him as she pleased. She was exceedingly enriched by great presents and by costly pensions, which she received from all parts for such negotiations as she employed herself in about her father, and she made also great expenses, being of a very liberal and generous disposition. She clung entirely to Dārā, her eldest brother, espoused cordially his part and declared openly for him, which contributed not a little to make his affairs prosper, and to keep him in the affection of his father, for she supported him in all things and advertised him on all occurrences, yet that was not so much because he was the eldest son and she the eldest daughter (as the people believed), as because he had promised her that as soon as he should come to the throne he would marry her, which is altogether extraordinary, and almost never practised in Hindustan.†

Some time after this, Tavernier goes on to say, the Begum Sahibeh "chose for her Khansamah—that is, her

* Dow's "History of Hindostan," vol. iii., p. 179. † Tavernier.

steward—a certain Persian called Nazir Khan, who was a young Amir, the handsomest and most accomplished of the whole Court, a man of courage and ambition, the darling of all, insomuch that Chaest Khan, uncle of Aurangzeb, proposed to marry him to the Princess. But Shah Jehan received that story very ill, and besides that, when he was informed of some of the secret intrigues that had been formed, he resolved quickly to rid himself of Nazir Khan. He therefore presented to him, as it were to do him honour, a betel which he could not refuse to chew presently, after the custom of the country. This young lord thought of nothing less than being poisoned. He went out from the company very jocund and content into his Palky, but the drug was so strong that before he came to his house he was no more alive."*

The probability of the story now becomes evident. Shah Jehan, himself a poisoner, was ever in dread of being poisoned. His daughter watched over him and tasted all his food.

"Returning one night from visiting her father, to her own apartments in the harem, she unfortunately brushed with her clothes one of the lamps which stood in the passage. Her clothes caught fire, and as her modesty, being within hearing of men, would not permit her to call for assistance, she was scorched in a terrible manner. She rushed into the harem in flames, and there were no hopes of her life. The Emperor was much afflicted; he gave no audience for several days. He distributed alms to the poor, he opened the doors of prisons, and he for once became devout, to bribe Heaven for the recovery of his favourite child. He, however, did not in the meantime neglect the common means. Anit Alla, the most famous physician of the age, was brought express from Lahore, and the Sultana, though by slow degrees, was restored to health."†

It appears, then, that Gabriel Boughton could have had

* Tavernier. † Dow's "History of Hindostan," vol. iii., p. 179.

no opportunity of treating the burnt Princess, but in fairness to his memory his story, as related by Stewart, which has become the staple of the popular historians of India, has been already quoted.

Stewart adds: "In the year 1639-40 the Prince Shuja, having taken possession of the government, Mr. Boughton proceeded to Rajmahal to pay his respects to His Royal Highness; he was most graciously received, and one of the ladies of the harem, being then indisposed with a complaint in her side, the English surgeon was again employed, and had the good fortune to accelerate her recovery."

Owing to this event Mr. Boughton was held in high esteem at the Court of Rajmahal, and by his influence with the Prince was enabled to carry into effect the order of the Emperor, which might otherwise have been cavilled at, or by some underhand method rendered nugatory.

In the year 1050—*i.e.*, A.D. 1640-41—a ship came from England, and brought out a Mr. Bridgman and some other persons for the purpose of establishing factories in Bengal. Mr. Boughton, having represented the circumstances to the Prince, was ordered to send for Mr. Bridgman; that gentleman, in consequence, went to Rajmahal, was introduced to the Prince, and obtained an order to establish factories at Ballasore and Hoogley, in addition to the one at Pipley. Some time after this event Mr. Boughton died, but the Prince still continued his liberality to the English.

This extract from Stewart's "History of Bengal" furnishes the earliest account of the story of Gabriel Boughton (who is not mentioned by Dow), but it cannot be traced to any authority now accessible.

The extract certainly makes some confusion of authentic dates and circumstances, but apart from that confusion it shows that Gabriel Boughton was a real person, who acquired the favour of Shah Jehan and members of his family. It gives no authority for the statement that Mr. Boughton treated a daughter of the Emperor suffering from an accident of fire, or for the patriotic direction given

by that gentleman to the Great Moghul's proposed remuneration of his skill, anticipating so closely the conduct more authentically related of a brother of his noble craft, three-quarters of a century later, Mr. William Hamilton. It will be seen a little further on that the despatch of Boughton from Surat took place not in 1636, but in the beginning of 1645, and that he was sent to Agra, and not to the Emperor's camp, then in the Deccan (as Stewart states), a circumstance that seems to have been imagined in order to render less impossible the intervention of so vast a distance, to be twice travelled over, between the demand for a European surgeon and his arrival in time to treat successfully the injuries received by the Princess.

The true version of Gabriel Boughton's mission to Agra, and its end, may be gathered from a letter which has been preserved "from President and Council at Surat to Company, dated Swally Mareene, the 3 January, 1645."

"ASSALAUT CKAUNE, a very great Vmbra, gratious with the King and our very good friend having long importuned us to supply him with a Chirurgeon wee Consideringe how advantageous itt may be unto you, and having a fit oportunity, one Gabriel Boughton, late Chirurgeon of the Hopewell being thereunto very well qualifyed and being willinge to stay, wee have thought fitting to designe him to that service, wherewith ASSALAUT CKAUNE is so well pleased that lately when Mr. Turner was to leave Agra he accompanied Mr. Tash and Mr. Turner to the King who honoured them more than ordinary in a long conference he held with them, dismissing them with Vests, and sending unto the President a ffirman and dagger, which not being yett received wee know not what the former may import or the Latters valew, but shall hereafter advise, and if the dagger be of any considerable worth it shall be sent to you with the jewell before advised the Prince lately sent unto the President, both expected by Mr. Turner."

This is all that can be found on the matter. The next Surat letter (March 31, 1645) has no reference to the

subject. In a later one, dated January 3, 1645-46, there is allusion to the dagger and jewel spoken of in the preceding letter, but there is no mention either of Boughton or of the firman. The discrepancy in dates cannot now be reconciled.

The next extract but one from the records shows Mr. Boughton transferred to Bengal, and there apparently using his influence to serve his countrymen. Some light is thrown upon this by the latter part of the passage from Stewart's "History of Bengal" before quoted, but there also the dates are wrong, and circumstances are detailed for which the authority cannot be traced.

In a later letter we find the Masulipatam agency testifying their sense of Mr. Boughton's favours, past and to come, by a *peshcash* of gay apparel. The word is a singular one to use in relation to an ex-employé; but it will be seen that it is offered to him as the servant of the Prince Shah Shuja.

"From Masulipatam Council to Mr. James Bridgman, etc., Ballasore.
"Dated Metchlepatam, the 25 February, 1650-51.

"Alsoe you may take notice of 3 Guze of Scarlett and 16 yards of gould and silver lace in Wm. Bennis his custody the which demand of him and present as a *piscash* from us to Mr. Gabriel Boughton whoe being the Prince's Servant, wilbe doubtless a great help unto you to gain his ffirmaund, which wee cannot coniecture wilbe difficult to bee obtained considering the very great present you have given already, farr in value exceeding what used to bee given in preceeding yeares."

Subsequent to the date of the foregoing extract Gabriel Boughton ceases to be heard of. What became of him may be guessed from a letter of the Court to Fort St. George, December 31, 1657.

The Court writes thus: "It is that wee much desire to be satisfied in and that we might have the certain knowledge if possible in all particulars of those dishonest actions

committed by Mr. Bridgman and his partners by whose unwarrantable proceedings you now write our ffactors in the Bay are much troubled by one William Pitts who married the Relict of Gabriel Boughton who having taken up monies at interest of the Moores they very much pressede the payment thereof out of our estate but we hope you have so manadged this business and given such advice to our factors that hath armed them with such arguements as to enable them to withstand and to oppose such unjust and unreasonable demands."

It is now easy to estimate the value of the service rendered by Gabriel Boughton to the East India Company, and the greatness of the sacrifice he made in their behalf. There can be no doubt that they knew him to be a good physician and a capable diplomatist, and they thought that by making use of his professional abilities they would be able to secure a political success and to remunerate their medical officer without additional expense to themselves. In both of these expectations, however, they were disappointed, for the Court of the Moghul was not only the most magnificent in the world, it was also perhaps the meanest. It received the most costly presents, and often gave in return a piece of muslin, an embroidered handkerchief, or a paltry medal.*

Boughton received no doubt many promises with regard to the commercial disadvantages under which his countrymen laboured, but it seems quite clear that the coveted firman was never granted to him. In 1676, more than twenty years after Boughton's death, the Company's agent wrote: "There does not appear that there was ever any firman or royal command, but only a Nishan or letter from Prince Shuja, and purwanas or warrants from the governors of the provinces." At the same time he expressed a fear that the trade would be ruined for want of such authority, and allowed that the English had hitherto carried on their trade freely without any right to be exempted from payment

* J. Talboys Wheler.

of customs. It was therefore determined to make an effort to obtain an Imperial firman. This was at last procured from Aurangzeb in 1680, after a disbursement of bribes to his officers of 50,000 rupees. By this the English were made free of customs in all places except Surat.

And now what became of one Gabriel Boughton, late chirurgeon of the ship *Hopewell?* His high qualification as a physician and his fitness for employment as a diplomatic agent having been recognised by the President and Council at Surat, he was sent by them on a dangerous and difficult service to the Court of the Moghul. He appears to have performed his professional duties to the satisfaction of all concerned, but he was unable to obtain for the factors the trade advantages they sought. He was therefore superseded and thrown into association with men who were afterwards dismissed for dishonest actions and unwarrantable proceedings. All that can be ascertained about the end of Gabriel Boughton is that he died and that his relict was remarried to one William Pitts, who gave much trouble to the factors by making claims on account of the services of his predecessor. Gabriel Boughton died a martyr to his zeal in the service of the factors at Surat, and his name passed into unmerited oblivion.

## Early Embassies to the Moghul Court, and the Reasons for their Failure.

Up to the beginning of the seventeenth century the English had no territorial possessions in any part of India. Very soon, however, they established factories for trading purposes at Surat, on the eastern side of the Gulf of Cambay, the seaport of which was at Swally, on the right bank of the mouth of the river Taptee.

Previously the regular European trade in the East was carried on by Portugal, England and Holland, under the name of their respective East India Companies. But there was a large irregular trade carried on by European adventurers on their own private account without sanction of

King or charter. In consequence of this the merchant ships became privateers and fought whenever they met, each nationality contending to protect its own merchandise and to ruin the trade of all other adventurers or interlopers, as they were called.

Moreover, at the beginning of the seventeenth century the power of the Portuguese was predominant on the western seas of India, insomuch that they made prize of all vessels which had not taken their pass. The merchants who were fortunate enough to escape the dangers of the seas and the attacks of pirates fell into the hands of the Moghul Viceroy at Surat and his officials. These had to be bribed before they would allow cargoes to be landed, and afterwards they exacted heavy duties on both imported and exported goods. Under such circumstances a remunerative trade at Surat could not well be carried on without assistance from the ruling powers in England.

A naval force was required to subdue the pirates; Ambassadors to arrange treaties of commerce and mutual goodwill; medical officials to heal the sickness of the people. In the year 1607 the English East India Company, incorporated by Queen Elizabeth in 1600, received a new charter from James I., who sent out armed ships, and Ambassadors to the Court of the Great Moghul.

The first English ship which came to Surat was the *Hector*, commanded by Captain William Hawkins, who brought a letter from the Company, and another from the King, requesting the intercourse of trade. The Viceroy at Surat, after raising many objections, gave Hawkins permission to dispose of his cargo, but forbade him to bring any more goods to India, or to establish a fort or factory on shore, without the permission of the Emperor. However, notwithstanding all the menaces of the Portuguese, he did not dare to disobey the Moghul's order that Hawkins should appear personally at the Imperial Court.

Accordingly, on February 1, 1609, he set out for Agra,

travelling in continual fear of poisoning, or assassination by his attendants, at the instance of the Portuguese, whose jealousy followed all his steps. Arrived at Agra, Hawkins, who seems to have been much fitter to fight the Portuguese at sea than to counteract their intrigues at the Moghul Court, where they had Jesuits of great subtlety, entered Jehangir's service, accepted a wife out of his seraglio and a promise of pay and pension, still retaining the pretension to the character he had assumed, of Ambassador from the King of England. He received frequent assurance of the privileges he solicited for the Company's trade, which were constantly retracted without apology. At length he lost hope, formally demanded his dismissal from the Moghul, and requested an answer to the letter brought from the King; this was denied, but he was permitted to depart, and arrived at Cambay on December 11, 1611, accompanied by the brothers of his wife to prevent him from carrying her farther.

It must be recorded, to the honour of Hawkins, that he refused to abandon the wife he married from the Moghul's seraglio. Procuring two Jesuits on mission at Cambay to be sureties for the surrender of his wife, he prevailed on her brothers to return to Agra, and then, by some scheme not explained, escaped with her, met with an escort, and arrived safely at the ships on January 26, 1612. Thus ended the ill-considered mission on which Hawkins, the master of a merchantman, was sent by the factors of the East India Company at Surat to Jehangir, the most liberal and perhaps the proudest of the Moghul Emperors of India.

After the lapse of three centuries, during which the name of the man and his mission have fallen into oblivion, the reasons for the failure of Hawkins become obvious. He visited the Court of Jehangir as the servant of a company of merchants, suppliants for the favour of the Great Moghul, the proudest and the most magnificent of the potentates of Asia; but although he was supplied with a

letter from the factors at Surat and the King of England, he bore with him no costly offerings, was accompanied by no retinue or appearance of regality. He was not even attended by a physician, who might have been able to ingratiate himself with Jehangir and to obtain the favour of his courtiers. The use that might be made of a well-appointed Medical Service had not then dawned upon the servants of the Honourable Company of Merchants trading to the East.

Subsequent to the departure of Hawkins in 1612, the factors at Surat continued to visit the Moghul Court with messages of supplication, which all ended in disappointment. At last the directors of the Company in England, having received frequent information from intelligent persons who had been at Agra concerning the state and manners of the Moghul's Court, became convinced of the expediency of sending a formal embassy from the King, to be executed by a person of more distinction than any who at this time had joined their mercantile service.

Accordingly, Sir Thomas Roe, an English statesman of importance, was appointed, "but as if the Royal Commission required not the accompaniments of splendour, frugality prescribed his allowances, his retinue, and even the present to the Moghul, with little conformity to the sumptuous prejudices of the most magnificent Court in the universe."* Sir Thomas embarked in one of four ships which left the land on March 6, 1615.

His journal makes no mention of any retinue, but he seems not to have been altogether unattended, for on his landing at Socotra he had with him a Mr. Boughton,† probably the chirurgeon of his ship, who appears to have been a person of some importance, as he "had leave to see the King's house." He "found it such as would serve an ordinary gentleman in England," while the lower rooms

* Orme.

† Terry, chaplain to Sir Thomas Roe, speaks of "our Surgeon," but does not give his name.

served for warehouses and wardrobe. Mr. Boughton was not allowed to see the King's wives, which were there, nor the ordinary women, but he had for his dinner "three hens with rice, and for drink water and *Cahu*, a black liquor, drank as hot as can be endured."*

The Sultan of Socotra came to the shore with 300 men, having set up a tent near the bay. He was on horseback, as were two of his chief servants, and another on a camel, the people running before and behind him shouting, and two guards, one of his subjects, and the other of twelve hired Guzaratis, some with Turkish bows, some with pistols, some with muskets, but all with good swords. He had also a few kettledrums and one trumpet.

"He received the General in a courteous Manner, and was so absolute, that no man could sell any Thing but himself."† On the whole, therefore, Sir Thomas was more graciously received at Socotra than he was afterwards at Surat, where he arrived on September 26, and was received in an open tent by the chief officers of the town, well attended. But, he says, there was "much controversy about searching my servants; but at length they passed free to the city, where we went into a house provided for us, and there continued till the 30th of October, suffering much from the Governor, who by force searched many chests and took out what he thought fit." The Governor of Surat was at this time "*Zulfacar Caun*," the favourite of Sultan Khurram, the third son of Jehangir, who succeeded to the throne with the name of Shah Jehan.

Zul Fikar Khan, vexed at the detriments which the State and revenues of his Government had sustained from the Portuguese, imputed the cause to the English, and detested them accordingly. There can be no doubt that he threw all possible obstacles in the way of Sir Thomas Roe's mission, pretending to see no difference between his position and that of those who had been employed as the Company's

* Journal of Sir Thomas Roe.

† *Sic in origine*, Sir Thomas Roe's Journal.

servants at Agra (Hawkins, Canning, Kerridge and Edwards),* who had all assumed the title of Ambassador from the King of England. But he did not dare to stop altogether his progress towards Agra, where Jehangir held his Court.

Sir Thomas therefore proceeded to *Brampore* (or *Boorhaunpoor*), which he guessed to be 223 miles east from Surat. Here he was met by the *Cutwall* (Kotwal), "an officer of the King's so called, well attended with 16 colours carried before him," who conducted him to the seraglio, where he was appointed to lodge, making his excuse that this was the best lodging in the town.

Thence he was carried by the *Cutwall* to visit the Prince (Sultan Khurram), in whose outward Court he found about a hundred gentlemen on horseback, waiting to salute him on his coming out.

He sat in a high gallery that went round, with a canopy over him, and a carpet before him. "An officer told me as I approached, that I must touch the ground with my head bare, which I refused, and went on to a place right under him, railed in with an Ascent of three steps, where I made him reverence and he bowed his body, so I went within where were all the Great Men of the town with their hands before them like slaves. The place was covered with a rich canopy, and under foot all with carpet. It was like a great stage, and the Prince sat at the upper end of it. Having no place assigned I stood right before him, he refusing to admit me to come up the steps, or to allow me a chair."

"Then," says Sir Thomas, in a letter to the Company, "I delivered his Majesty's letter, with a Copy of it in Persian, shewed my Commission, and delivered your presents."

"These consisted of a Coach, a pair of Virginalls, some knives, an embroidered scarf, and a rich sword of my own." But Jehangir had lately received from an Ambassador sent

* Orme.

by the King of Vizapore, "thirty-six elephants, two of them with all their chains of wrought beaten Gold, two of silver, the rest of brass, and four rich furnished Horses with Jewels to the Value of ten Lacks of Rupees." It is not, therefore, very surprising to hear that, after the English had left the Durbar, Jehangir asked a Jesuit who was present whether the King of England was a great King, that sent presents of so small value. And that he looked for some jewels. "Having my presents, he offered to go into another room where I should be allowed to sit, but by the way he made himself drunk out of a case of bottles I gave him, and so the visit ended."

On another occasion, being the King's birthday, Sir Thomas attended a Durbar, at which Jehangir, covered with diamonds, rubies, and pearls, was weighed in scales of beaten gold against gold and precious stones, but these being packed up, Sir Thomas saw them not.

After this solemnity the King spent all night in drinking with his nobles. In such symposia Sir Thomas often had to join, but on this occasion he desired to be excused, because there was no avoiding drinking, and their liquors were "so hot they will burn a man's very Bowels."* Sir Thomas was then very ill of a flux, and durst not venture such a debauch. He must at this time have sorely felt the absence of a medical officer, for on one occasion he was carried sick from Brampore towards Ajmere, to which place the Moghul had moved from Agra. In his Journal he also declares that in his travels, following the Moghul's Court, he endured "all the inconveniences men are subject to under an ill Government and in an intemperate Climate." He did not arrive at Agra till December 23, and his sickness delayed his first audience with Jehangir until January 10, when he was received by the Moghul with more than the usual courtesy awarded foreign Ambassadors to the East.

Sir Thomas delivered his demands in writing to the Emperor at the daily public audience. They were dis-

* Journal of Sir T. Roe.

persed into nineteen articles which comprehended every necessary provision for the safety and success of the Company's trade in the Moghul's dominions, and guarded against the repetition of such injuries and indignities as he himself had seen or suffered at Surat. But these articles, by which freedom of trade was granted to the English, promised no advantage to the Portuguese. Sultan Khurram therefore, aided by his father-in-law, Asaf Jah, not only continued his opposition, but even treated Sir Thomas more than once with ill manners in the presence of the Emperor.

The Portuguese also continued to send armed ships and fleets to the Gulf of Cambay, and to threaten the ships which had brought Roe's expedition and were anchored at Swally. The promises made at first by Jehangir were in consequence never fulfilled, and on September 2, 1616, his birthday, Sir Thomas told Asaf Jah that, having now waited seven months without effect, he should on the morrow request the Emperor to declare the causes of the delay, and what he really meant to grant.

To this Asaf Jah objected, and Sultan Khurram suggested that it would be better if Sir Thomas relied upon him in the businesses of his own government instead of crossing him by requests to the Emperor, in which case he would be found a better friend than Sir Thomas expected. In the meantime four more ships had been despatched from England. In the Gulf of Madagascar the *Charles*, a ship of 1,000 tons, commanded by Captain Joseph, was attacked by a Portuguese carrack, a vessel of exceeding great bulk and burden, carrying 700 men and commanded by Admiral Don Manual de Meneses.*

In the fight that ensued Joseph was killed ; his second in command, Captain Powell, had an eye struck out and received wounds in the jaw and leg ; and the master and five seamen were dangerously wounded. But the mate took up the command, and, assisted by the other two ships, drove the carrack ashore on the island of Angazija, which was not

* Orme.

far off. A boat was sent from the *Charles* with a flag of truce. This was received with courtesy, but the gallant Meneses refused to surrender, and declared he would get to sea on the morrow and renew the fight, when, if taken, he expected the treatment of a gentleman. But in the night a storm arose in which the carrack drove and was jammed between two rocks. In this situation her crew set her on fire and escaped to the shore, where they were attacked by the natives, who stripped them of their clothes, "setting so much value on everything which might serve for their own, that they threw away the dollars in order to put their heads into the empty bags."

"The brave but unfortunate Meneses, the pilot and a few more, are said to have escaped in the carrack's boat and to have met two junks belonging to a Muhammadan, who collected the rest of the shipwrecked crew, gathered their treasure, secured their jewels, and sent them away in his own vessels to the Portuguese port of Mombaze."

Here the valour and misfortunes of Meneses were properly rewarded. He was received by the Viceroy, Azavedo, and the city, with the highest veneration. He was sent back to Lisbon in an advice boat, and arrived safe to receive the same acknowledgments in his own country.

"And indeed his defeat merited a trophy of victory, for his force bore no proportion to the English ships, of which, nevertheless, either of the strongest would probably have sustained an equal conflict against the same superiority, for at this time the highest spirit of military honour animated all the officers and seamen of the Company's marine."

Is not this suggestive that there must have been in Sir Thomas Roe's time an efficient Medical Service attached to the Company's marine? The high courage and daring of the fighting men could not have been maintained had there been no surgeons to attend to them when wounded.

Having received news of this action, Sir Thomas Roe, on October 14, sent for a Portuguese Jesuit residing at the Court, and gave him an account of it, offering a peace upon

equal terms, with which he promised to acquaint the Viceroy of Goa. He then visited the Prince, and asked for a place and harbour to fortify, and said we would defend his ships against the Portuguese; this was repelled with scorn. In the evening he waited on the King with the account of the arrival of the ships, and the King asked what presents they had brought for him, "which," says Sir Thomas, "I could not give him an account of." Jehangir was much disappointed, but pleased to hear that the mastiff dogs which he expected had escaped the fight, of which he spoke with praise, but was much vexed that the great horse which was promised had not arrived, and offered Sir Thomas a lakh of rupees if he would procure him one.

Sir Thomas seems not to have thought much of this naval victory. He says in his Journal: "There came out six ships from England, but they lost company of one in bad weather, and another was sent to Bantam. By the way, they had fought a Portuguese Galleon bound for Goa, which burnt itself." This was not saying much, but out of that victory came more advantage to the East India Company than Sir Thomas was able to gain in his two years' residence at the Court of the Moghul, for it broke the power of Portugal upon the Indian seas, and gave free passage for the English ships to Surat. The ships carried into India not merchandise only. They carried men skilled in the art and science of medicine.

It must not, of course, be imagined that all of these were highly qualified in their profession. No doubt most of them were of the old barber-surgeon type, but the best were probably graduates of European Universities, which at the time were sending out the men who laid the foundations of medical education in England, and supplied enlightened physicians to all known parts of the world.

The first ships sent out by the East India Company were certainly not altogether unprovided with medical attendance.

In the year 1600 the Company's fleet consisted of four

ships—the *Scourge*, the *Hector*, the *Ascension*, and the *Susanne*—and to each ship there were appointed "Surgeons twoe and a Barber."*

On December 11 in the same year an order is given to Alderman Hollyday to pay to Ralph Salter, surgeon, entertained for this voyage, "the some of thirty and two pounds sterling, being allowed unto him by composition for the furnishing of his chest with all kinds of necessaries and remedies belonging to a chirurgeon, to be used in this viage; upon payment of this money he is to take acquitance."

A similar order is given to Mr. Alderman Baninge to make payments for similar purposes of "twenty-five pounds sterlinge, and twenty pounds sterlinge to James Lovringe, surgeon of the *Hector*, Christopher Newchurch, surgeon of the *Ascension*, and to John Gammond, surgeon of the *Susanne*."

These medical arrangements do not seem to have been very successful. The *Ascension* returned from the East Indies in June, 1603, and letters were received by the Court from Edward Highlord, "pursere," and Roger Style Cape, merchant of the same ship, both discoursing the state of the voyage, the parts which had been visited for trade, and how "many of the men are dead in the voyage."

From these discourses the General Assembly conceived good hope that the voyage "may fall out such as may minister encouragement to set out another voyage for the further discovery of the parts of the East Indies," but no mention is made of the surgeons, who may have possibly been among those "dead in the voyage." There were many sick and weak men on board who were desirous to leave the ship when she arrived at Plymouth.

No more information as to the existence of a Medical Service on board the Company's ships can be gathered from the old records at the India Office till the year 1642, when the right to establish a factory at Balasor

* "Court Records of the East India Company," Sir G. Birdwood. London, 1886.

(Baleshwar, or the strength of God) was granted to the Company, and in 1645-46, in return, as the story goes, for medical services rendered to the Great Moghul (Shah Jehan, 1627-58) and to his Viceroy, the Nawab of Bengal, Sultan Shuja (1639-60), by Surgeon Gabriel Boughton, of the Company's ship *Hopewell*, as already related.

Passing on to the year 1709, we find recorded the names of seven ships of the East India Company sailing to Bengal, viz.: (1) The *Frederick*, 350 tons, 70 men, 28 guns; (2) the *Loyall Bliss;* (3) the *Halifax;* (4) the *St. George*, 450 tons; (5) the *Susanne*, 330 tons; (6) the *King William*, 400 tons; (7) the *Sherbourne*, 250 tons.

The names of the medical officers, or doctors, as they were at the time styled, were: (1) Robert Tonge; (2) William Penycoate; (3) Oliver Colt; (4) Thomas Stewart; (5) Hugh Campbell; (6) Oliver Mow; (7) William Hamilton.

It is unnecessary to say more about the first six of these gentlemen, but William Hamilton, of the ship *Sherbourne*, must be noticed, as, of all the Company's servants at this time (1712), it is his name alone that is preserved in the history of British India as the great benefactor of the English in Bengal.*

The *Sherbourne* was a frigate of only 250 tons, carrying 22 guns. Her company consisted of 52 officers and seamen and 19 soldiers. Her captain received £10 a month; her first mate, £6; Hamilton, the surgeon, £3 10s.; and Archibald Liston, his mate, £2. Leaving England in February, 1710, the *Sherbourne* arrived at Bencoolen in August, and left on the 7th of that month bound for the East Coast of India, her crew having been brought to the verge of mutiny by the harsh treatment of their captain, who caned or whipped them for the slightest faults.

The *Sherbourne* was unlucky. Sailing along the coast of Ceylon on September 1, 1710, in fine weather, with all sail set, she struck on a spit of sand to the north of Trinco-

* C. R. Wilson, "Early Annals of the English in Bengal."

mallee, eighty miles from Port Pedro. Failing to get her off, Cornwall left the ship, landed at Port Pedro, and made his way to Jaffnapatam to seek assistance.

The Dutch Governor received him kindly, and sent him back with as many sloops as could be spared. On his return not a man of his crew would return to duty till he had received his discharge. With the assistance of the Dutch the ship was got off, brought to anchor at Port Pedro, and ultimately passed on to Calcutta, where all except Hamilton were tried for mutiny. Hamilton had remained throughout steadfast to his duty; he did not desert his post with the faithless crew, but went with the ship from Port Pedro to Madras and from Madras to Calcutta.

There he obtained leave from the authorities to return to Madras, and made his escape from the *Sherbourne* in a country boat without taking leave of his captain. Cornwall reported the desertion in a very angry letter, and Hamilton was ordered to return to his ship, but this he never did. In the ledger of the ship *Sherbourne* the account of William Hamilton, chirurgeon, is closed with the word "run," and his act of desertion might have cost him his life, but on December 27, 1711, he was appointed second surgeon at Calcutta. His subsequent actions brought lasting benefit to his nation, but he never again saw his native country. In the annals of the Indian Medical Service the name of William Hamilton must stand ever next to that of Gabriel Boughton. The *Sherbourne*, with Cornwall in command, was captured and taken into Pondicherry by a French man-of-war in 1712.

The Diary of the United Trade Council at Fort William in Bengal, under date December 27, 1711-12, records that—"We being in great want of another Surgeon for to tend all the Company's Servants and Soldiers of this Garrison, and William Hamilton being out of employ. Agreed that he be Entertained upon the same Allowance and Privileges as William James our present Surgeon."

The Bengal Medical Service at this date consisted of two officers, a number obviously insufficient to attend all the Company's servants in the bay, consisting of: President and councillors, 9; senior merchants, 2; junior merchants, 3; factors, 6; writers, 31; and residing not only in Calcutta, but at Cossim Bazar (now Murshidabad), Patna, and Balasore, where factories were established. Of the two medical officers above named, it appears that Dr. James went to England in 1712, and that Richard Harvey, who came to Calcutta as surgeon in the ship *Recovery* in the same year, was appointed in his place.

Harvey had attended the Governor the Worshipful Robert Hedges, Esq. (during an indisposition which required him to go up to Nuddea for change of air), and was in consequence taken into the service, "he being a good physician, and one doctor not being sufficient for this place in the sickly season."

William Hamilton was known to be a man of great and unmistakable ability, with an insight into character which gained him influence over his fellow-men.* These qualities soon brought him the notice of the Governor, and caused him to be, like Boughton, employed as a medico-diplomatist.

The death of the Emperor Aurangzeb in 1707 was followed by a contest for the succession, which ended in the elevation of his eldest son, Shah 'Alam, to the Moghul throne. Shah 'Alam died in 1712, and the usual confusion about succession followed. It devolved finally on the feeble Prince Farrukh-siyar, a grandson of Shah 'Alam, who was disposed to favour the English traders. Consequently on January 4, 1714, there were rejoicings in Calcutta. The troops of the garrison fired a feu-de-joie, and the Company's servants drank the health of Queen Anne and of the King Farrukh-siyar with fifty-one guns to each health. A bonfire was made, the soldiers were given a tub of punch "to chear their harts," and it was

* C. R. Wilson, *op. cit.*

determined to send an embassy with a present to the Moghul's Court. On the day following the embassy was appointed.

It was to consist of Mr. John Surman, Mr. John Pratt, factors, and Mr. Edward Stephenson, writer, but as it was considered necessary that "one of our surgeons go up with the *Gentlemen** who go with the present, it was agreed that Dr. Hamilton should be sent." Two members of the Council objected to the three gentlemen as being of insufficient importance; the *Doctor*, of course, was out of consideration. But the majority of the Council and the Governor, Robert Hedges, doubtless knew why all other embassies to the Moghul Court had failed. Dr. William Hamilton, therefore, was sent with the present, and the embassy was, after many days, successful.†

Many preliminaries had to be settled. Mr. Pratt declined to proceed to the Moghul's Court because he scorned to go inferior to Mr. John Surman or *Cojah Surhaud*, and wrote several letters to his friends "manifesting his pride and ambition, joined with such a temper as may occasion quarrels, and hazard the ruin of our affairs at the King's Durbar." Part of the present consisting of clocks, a clockmaker had to be appointed to take care of

* This must have been somewhat galling to a cadet of the noble family of the Hamiltons of Dalzell, which traced its origin to Gavin, third son of James, Lord Hamilton in the fifteenth century.

† It is evident that at this time the Company's surgeons were considered to be socially inferior to the factors. On March 4, 1706, the Council at Calcutta received a letter from Mr. Arthur King, "a factor in the Company's service, who considered himself insulted because the surgeon's wife has taken her place in the church above his wife." He asks the Council to order that his wife shall be placed above the surgeon's wife in the future." This letter was opened by the chairman, Mr. Russell, who persuaded King to withdraw it, that the matter might be settled privately.

"King now writes again to say that the surgeon's wife continues 'to squat herself down' in his wife's place, and that, if they would not see to it, he would let them know that they, as well as he, 'had masters in England,' and that they must hold themselves responsible for any disturbance or unseemly conduct that may arise in church in consequence" (C. R. Wilson, *op. cit.*).

them and repair what damage may happen to them in the way. One James Gaywood was entertained for the purpose at Rs. 30 per month, and an advance of Rs. 150 allowed him "to provide him his necessarys."

"*Cojah Surhaud*," an Armenian merchant appointed to be second on the embassy, had to be settled with, and he required the modest sum of Rs. 50,000.* Lastly, Mr. Edward Stevenson and Dr. Hamilton had to be provided with clothes, etc., to the extent of Rs. 350 and Rs. 300 each, to enable them to proceed to the Moghul's Court with the present.

In April, 1714, after three months' discussion, the boats with the present started for Patna, whence a year later the whole embassy proceeded by road to Delhi, where they arrived on July 8, 1715, after a journey of three months. The embassy and costly present of the Company, however, were doomed to imperial neglect had not an accident over which they had no control, and the virtue of a public-spirited man who preferred their interest to his own, opened an avenue to the grace of Farrukh-siyar.

Farrukh-siyar was at the time engaged to be married to the daughter of the Rajah Ajit Singh of Jodpore, but was labouring under an indisposition considered by his Indian physicians to be rather inconvenient at the time of his marriage. Under their treatment the disorder lingered, and Farrukh-siyar, becoming impatient, was advised to make trial of the skill of the medical gentleman accompanying the embassy. Cure was the speedy consequence. That Farrukh-siyar was satisfied with the result there can be no doubt.

On January 12, 1715-16, the Council at Fort William received a "Packett from Messrs. Surman and Stephenson at Delly," dated December 7, advising the welcome news of the King's recovery, as a clear demonstration of which he, according to the Eastern manner, "washed himselfe the

* C. R. Wilson, *op. cit.*

23rd, and received the Congratulations of the whole Court on the 30th Dec."

"He was pleased to reward Mr. Hamilton for his care and success in a public manner, presenting him with a Veste, a *Culgee* sett with precious Stones, two Rings, an Elephant, Horse, and five thousand Rupees, and ordered severall Additions to be gott for him."

"*Cojah Surhaud* received at the same time an elephant and Vest as a reward for his attendance. They delivered to his Majesty the remaining part of their Present reserving only a small part till the ceremony of his Majesties marriage should be over. The General Petition they had delivered to *Cawn Daurar* in order to have it presented to his Majesty."

Such a fee for the performance of a minor surgical operation may perhaps be regarded as excessive, but it should be remembered that Hamilton, like Boughton, "asked for nothing for himself," and that during his whole attendance his life was in danger. The friends of Farrukh-siyar doubted Hamilton's motive; his enemies dreaded his success.

## The End of Hamilton's Mission.

News having reached Delhi that the English at Surat had removed to Bombay in order to escape the oppression of the Nawab of Surat, the Court at Delhi was alarmed lest they should again make war on the Moghul's ships. Every demand was granted; a firman was made out and signed. The following extract described the farewell audience: "Delhi, 7th June, 1717. The 23rd ultimo, John Surman received from his Majesty a horse and *cunger*, as was pre-appointed: and the 30th ultimo we were sent for by *Khan Dauran* to receive our despatches, which we had accordingly; a *serpaw* and *culgee* being given to John Surman, and *serpaws* to *Serhaud* and John Stephenson, as likewise to the rest of our companions. We were ordered to pass, one by one, to our obeisance; then to move from

the Dewan. We did so. But when it came to Mr. Hamilton's turn, he was told that the King had granted him a vest as a mark of his favour, but not for his despatch. So he was ordered up to his standing again."

"Whilst he was performing this, the King got up. We were highly surprised at this unexpected motion, not having the least notice of it till that minute, either from our patron or any of authority; it being near a twelve month since Mr. Hamilton had been in private with his Majesty, and in all this time not the least notice taken. We were very much concerned at his detainment, and the more because we were assured of his firm aversion to accepting the service, even with all the charms of vast pay, honour, etc.: that if the King did detain him by force, if he outlived the trouble of his esteeming imprisonment, he might be endeavouring an escape, which every way had its ill consequences."

"To free our Honourable Masters from any damages that might accrue to them from the passionate temper of the King, our patron *Khan Dauran* was applied to for leave, twice or thrice; but he positively denied to speak or even have a hand in this business, till our friend *Sayyid Sallibut Khan* had an opportunity to lay the case before him, when he ordered us to speak to the Vizier, and, if by any means we could gain him to intercede, that he would back it."

"We made a visit to the Vizier the 6th instant, and laid the case to him in a petition from Mr. Hamilton, of how little service he could be without any physic, language, or experience in the country medicines, or their names; besides which the heart-breaking distractions of being parted for ever from his wife and children would be insupportable, and entirely take away his qualifications for the King's Service; that under the favour of His Majesty's clemency, with the utmost submission, he desired he might have leave to depart with us. From ourselves we informed the Vizier that we should have esteemed this

a great honour, but finding the Doctor under these troubles not to be persuaded, we were obliged to lay the case before His Majesty, and we humbly desired he would use his intercessions to the King, that His Majesty might be prevailed upon to despatch him. The good Vizier readily promised to use his utmost endeavours, and since the case was so, the business was to gain the Doctor's dispatch without displeasing the King; and he ordered a petition to be drawn up to His Majesty in the same form as that given to himself."

"It was sent him, and the Vizier was as good as his word, writing a very pathetic address to His Majesty, enforcing Mr. Hamilton's reasons and backing them with his own opinions, that it was better to let him go. The King returned an answer which came out the 6th as follows: 'Since he is privy to my disease, and perfectly understands his business, I would very fain have kept him, and given him whatsoever he should have asked. But seeing he cannot be brought on any terms to be content, I agree to it; and on condition that after he has gone to Europe and procured such medicines as are not to be got here and seen his wife and children, he return to visit the Court once more, let him go.' We hope in God the troublesome business is now blown over."

Surman received permission to leave Delhi on July 18, 1717, and reached Agra greatly fatigued by a journey of two months' duration. *Khojah Surhaud*, who from the first was suspected of playing tricks, still remained at Delhi, so they "sent him a protest from *Barapola* and *Ferrabadad* wherein they let him know his expenses from that time are on his own account, to which he returned a retorting answer that he expected the contrary." Hamilton was told by his mercantile masters that if he did not stay after Mr. Surman he would be dismissed.

Hamilton obtained his leave from Farrukh-siyar by means of a legal fiction—he had neither wife nor children. He had come to India to earn money enough to enable him to

go home and marry the girl of his heart. He died soon after his return to Bengal. The news of his death was sent to Delhi, but Farrukh-siyar would not believe it until he sent an officer of rank to make inquiries at Calcutta, where the tombstone of Hamilton was, and is perhaps still, to be seen. It bears an English epitaph, together with a Persian inscription, which has been thus translated:

"William Hamilton, Physician in the service of the English Company, who had accompanied the English ambassadors to the enlightened presence, and having made his own name famous in the four quarters of the earth by the cure of the Emperor, the Asylum of the World, Mohammad Farrukh-siyar the Victorious, and with a thousand difficulties having obtained permission from the Court, which is the Refuge of the Universe, to return to his country, by the Divine decree on the 4th of December, 1717, died in Calcutta, and is buried here."*

Within two or three years after the departure of Hamilton from Delhi, Farrukh-siyar, deposed and cruelly blinded, was murdered in the dungeon into which he had been thrown by his brothers. His remains were buried in the famous tomb of Humāyun.

In the Diary and Consultation Book of the Council of Fort William in Bengal, under date 1717, the last will and testament of William Hamilton stands recorded. After bequeathing the bulk of his estate to his father, brothers and sisters, he gave Rs. 1,000 to the Church of Bengal; £500 to his cousin, Mistress Anna Hamilton, and he nominated and appointed as his trustee Mr. John Surman, giving to him the large diamond ring and *culgee* received from King Farrukh-siyar.

The will was signed and sealed at "Surugegurra, on board the boates going for Bengall, in presence of John Cockburn and John Sturt, the testator being perfectly in his senses but not in perfect health of body."

Subsequently to the departure of William Hamilton with the present to Farrukh-siyar, the Honourable Company's medical establishment remained for some time in the hands of two surgeons, not assisted even by a barber.

* C. R. Wilson, *op. cit.*

In a list of the Honourable Company's servants in the Bay of Bengal, "According to their Precedences and Stations," dated Calcutta, 1714-15, the name and dignities of these gentlemen are thus recorded:

| Names. | Dignities. | Arrival in India. | Salary per annum. | Present Salary. |
|---|---|---|---|---|
| Surgeons. | | | £ | £ |
| Richard Harvey*... | Doctor | 1 January, 1712 | 36 | 36 |
| Oliver Coult ... | Doctor | 7 September, 1713 | 36 | 36 |

The inability of so small a staff to cope with its duties very soon became evident. Both doctors were often absent on duty. French and Dutch medical officers had to be engaged, and their services paid for. Every year, as the Company's trade developed, and the number of the Company's servants, civil and military, increased, the difficulty of finding medical attendance for them became more pressing.

In 1707 the authorities in Calcutta were induced to attend to the needs of the soldiers and sailors, who every year fell sick and died in large numbers, owing to the cruel manner in which they were neglected by the factors. After frequent misrepresentations had been made by the doctors, the Council agreed, on October 16, that a convenient spot, close to the burial-ground, should be pitched on as the site for a hospital, and contributed Rs. 2,000 towards the building expenses. The rest of the money was raised by public subscription. Of this institution Hamilton has expressed a somewhat modified approbation. "The Company," he says, "has a pretty good hospital at Calcutta, where many go in to undergo the penance of physic, but few come out again to give an account of its operation."†

* Harvey was formerly surgeon of the ship *Recovery*, and was retained in place of W. James, surgeon of the ship *Bouverie*, who had gone to England.

† This was the opinion of Alexander Hamilton, a merchant and author, who went out to the East Indies in 1688, and remained there till 1723. His adventures and experiences are told in a most interesting manner in

In 1710, in order to put a stop to the unwholesome practice of allowing the soldiers to lodge in the town, the hospital was walled round and barracks erected for them to live in under the supervision of their officers. Under these circumstances the Honourable Company was bound to add to its number of medical officers, but these were not to be easily obtained.

The surgeons of the Company's ships were always available, and there were doubtless medical adventurers bent upon increasing scanty professional incomes by trading gains. Nevertheless, there is no doubt that the Company succeeded in obtaining in course of time a sufficiency of good medical officers, some of whom attained to eminence, not only in medicine, but in other departments of the service.

J. Z. Holwell, the historian *par excellence* of the Black Hole, the man of unflinching perseverance in duty, who in 1757 maintained the defence of Fort William for two days, after its desertion by the chief civil and military authorities (who survived the Black Hole), began his career in India as a medical officer. The life-history of Holwell has been told by Surgeon-Major Busteed, of the Bombay Medical Service, in his "Echoes of Old Calcutta."

Holwell was the son of a London merchant, and the grandson of John Holwell, well known as a learned mathematician and astronomer, who wrote towards the end of the seventeenth century.

J. Z. Holwell was born in Dublin in 1711; at an early age he was sent to a school at Richmond in Surrey, where he greatly distinguished himself in classics. His father

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his "Account of the East Indies," published in 1727, which has been declared to offer a closer parallel to the History of Herodotus than perhaps any other work in modern literature. His book, which is dedicated to the Duke of Hamilton, must, however, be weighted with his distinct confession that his observations were drawn "mostly from the storehouse of his memory." Moreover, as a private merchant, or "interloper," he was probably prejudiced against the Company and everything connected with it (C. R. Wilson, *op. cit.*).

having determined to bring him up to mercantile pursuits, he was removed to an academy in Holland, where he acquired a knowledge of French, Dutch, and book-keeping. He was next settled as a clerk in the counting-house of a banker and "husband of ships" at Rotterdam by a friend of his father, who agreed to take him into partnership after a stipulated time; but his health breaking down under hard work, he went for a trip to Ireland, and returned from that country with a fixed aversion to the life of a merchant.

The profession of medicine was next adopted for him by his father, who had him articled to a surgeon in Southwark, on whose death he was placed under the care and instruction of the senior surgeon of Guy's Hospital. On his quitting the hospital he was engaged as surgeon's mate on board an Indiaman, which arrived in Calcutta in 1732. From Bengal he made two or three voyages in the Company's ships as surgeon, and twice went in charge of the "Patna party," about 400 fighting men, which annually left Calcutta with the Company's trade for the Patna factory.

On these occasions he bore the rank of Surgeon-Major. After having served for a short time as surgeon to the factory at Dakka, he returned to Calcutta at the end of 1736, when he was elected an Alderman in the Mayor's Court. In or about 1740 he was appointed assistant-surgeon to the hospital, and, having been brought on the fixed medical establishment under orders from home, he soon became Principal Surgeon to the Presidency. He tells us himself that for two years successively he was Mayor.

In 1748 ill-health obliged him to return to England. During the voyage he drew up a plan he had formed for correcting abuses in the Zamindar's Court at Calcutta, and proposed it to the Court of Directors, who, adopting it, appointed him perpetual Zamindar (a post carrying with it fiscal and magisterial duties) and twelfth in Council.

On his arrival in Calcutta as a covenanted civilian in 1751, he began his system of reform, which eventually gave such satisfaction at home that his annual salary was raised

from Rs. 2,000 to Rs. 6,000; and a prohibition against his rising in Council, which was at first stipulated, was removed.

By the time that the war broke out he had risen to the position of seventh in Council. On his release from Murshidabad he made his way to the ships at Fulta, where disease was making havoc amongst the refugees who were waiting there for the expedition from Madras. In one of his letters from there to the Court of Directors, he mentions being deputed to take possession of "*Bullramgurry*," somewhere near Ballasore, apparently, and to have "nominated it your Presidency, it being the only one of your possessions remaining to you on these parts."

Being shattered in health, he was sent home with despatches in February, 1758, in the *Syren*, a sloop of only 80 tons, and had a perilous voyage of six months, during which he wrote his narrative of the Black Hole. In consideration of his distinguished and meritorious services, he was nominated by a large majority in the Court of Directors to return to Bengal as successor to Clive, but this he seems to have modestly declined in favour of Mr. Manningham; he was then named second in Council. But a fresh election of Directors having occurred before he started, the above arrangements were reversed by a majority of the new-comers who were not friendly to him, and he was relegated to his old position of seventh in Council. However, on his arrival in Calcutta he found himself fourth, owing to the departure of seniors, and in 1759 he became second.

By virtue of this position he succeeded Clive as Governor, on the latter proceeding to Europe in February, 1760. He held the governorship for two months only. The Court of Directors of those days was broken up into factions; Holwell did not pull well with them, nor did Clive, and acrimonious letters passed between the Bengal and Home Governments.

In consequence of this dispute Holwell asked for permis-

sion to resign the service. The permission was given, and concern expressed at the loss of so valuable a colleague.

Holwell died at Pinner, Middlesex, on November 5, 1798. For the last twelve years of his life he was in very straitened circumstances, and was reduced to applying to the generous friendship of Mr. Weston, who subsequently became notable as the benefactor of all classes in Calcutta.

Charles Weston had served his time as surgeon's apprentice to Holwell, and had once accompanied him to Europe. On Holwell's getting into the Civil Service, Weston also changed his pursuits. "What could I expect," said he, "from following the medical profession, when I saw a regular-bred surgeon and so clever a man as Mr. Holwell charge no more than Rs. 50 for three months' attendance and medicine?"

Weston served as a militiaman at the siege of Calcutta, and escaped by having been sent on the river to look after his patron's baggage boats the day before the fort was taken. He took refuge in Chinsurah. He was often heard to say that Suraj-ed-Doulah's forbearance to Holwell and the latter's release from fetters were due to the intercession of the Nawab's wives, instigated by the natives of Calcutta, who loved him well.

When Holwell left India he gave Weston Rs. 2,000, and lent him Rs. 5,000 more. With this capital Weston made a large fortune, chiefly by safe agency business, and became well known for his charities during his lifetime. The profits he made by the Tiretta Bazaar he applied to his own use. The rest of his fortune was invested in Government securities, and the whole interest of this he monthly distributed to the poor of all nations, classes, and religions, without distinction. The lakh of rupees which he left to the poor at his death was the smallest of his charities. He died in 1810, aged seventy-eight, and was buried in South Park Street Cemetery.*

Passing on to the year 1763, the English in India are

* Busteed, *op. cit.*

found again at issue with the native rulers of the country on the subject of trade. In that year the English army attacked Monghyr, and the loss of this place threw the Nawab Meer Cossim into a paroxysm of rage, during which he ordered all his prisoners to be massacred.

Then occurred a tragedy at Patna as terrible as that of the Black Hole. Suffice it to say that fifty-one Englishmen were slaughtered in cold blood at Patna, together with a hundred others of inferior rank. A surgeon named Fullerton, who in the exercise of his profession had gained a place in the affection of Meer Cossim, was the only individual spared. Fullerton was, on his own petition, sent from Monghyr to Patna to attend on the prisoners, and would doubtless have shared their fate had he not been separately imprisoned to guard him from the ruthless cruelty of the renegade European who executed the horrid command of the Nawab. Four other medical officers, Head-Surgeons Crooke and Hamond and Surgeons Campbell and Anderson, were among the victims of the Patna massacre.

After the massacre, which took place on October 5, 1763, Fullerton applied for liberty to stay at the Dutch factory, which was granted. A week afterwards, on the approach of an English army, the Nawab Cossim decamped with his troops in great confusion, and marched five coss to the westward of the city, leaving Fullerton to his fate, which no doubt would have been speedily sealed had he not possessed money enough to bribe the Jemadar, who had the guard to the westward of the Dutch factory by the river-side.

Then he says in his Journal: "I set out in a small boat and got safe into the boats under command of Captain Wedderburn that were lying opposite to the city on the other side of the river, and at eleven o'clock that night arrived at the army under the command of Major Adams, laying at Jutly."

Fullerton appears to have been a private practitioner.*

* It seems that he was originally in the service, but left it early in 1764.

His name is not to be found in the List of Medical Officers of the Indian Army from 1764 to 1838, compiled and edited by Dodwell and Miles in 1839, a work, of course, long out of print, but still to be found in the library of the India Office.

One of the earliest names mentioned in this list is that of F. Hamilton Buchanan, M.D., who took his degree in Edinburgh in 1783, and was shortly afterwards appointed surgeon of a man-of-war, but was compelled by ill-health to relinquish his appointment. In 1794 he entered the East India Company's service as a surgeon in the Bengal establishment. Shortly after reaching India he accompanied a mission to the Court of Ava, and devoted himself to botanical researches in Ava, Pegu, and the Andaman Isles.

On the return of the mission, being stationed at Lakkipur, near the mouth of the Brahmaputra, he wrote an admirable description of the fishes of that river, which was published in 1822.

In 1800 he was deputed by Lord Wellesley, then Governor-General of India, to travel through and report upon the countries of Mysore, Canara, and Malabar. He investigated the state of agriculture, arts and commerce; the religion, manners and customs; the history, both natural and civil; and the antiquities in the dominion of the Raja of Mysore and the countries acquired by the Honourable East India Company, in the late and former wars from Tippu Sultan.

This report, which is very voluminous, and cast in the form of a journal, was published in England in 1807 by order of the Court of Directors, in three quarto volumes. A second edition in two octavo volumes was published at Madras in 1870. Buchanan's tour in Southern India was followed by a visit to Nepal, in company with another traveller in 1802, which resulted in his writing a history of Nepal and making large additions to his botanical collections. On his return he was appointed surgeon to the

Governor-General, and accompanied Lord Wellesley on his voyage to England in 1806.

Shortly afterwards he was deputed to make a statistical survey of the Presidency of Bengal, an enormous work, on which he was employed for seven years. The result of this survey, which was forwarded to the East India House in 1816, does not appear to have been published, if we except a geographical and statistical description of Dinajpur, published at Calcutta after his death. In 1814 Buchanan was appointed Superintendent of the Botanical Gardens at Calcutta, but returned to England in the following year. He was a Fellow of the Royal Society, and a member of the Royal Asiatic Society. He died on June 15, 1829, in his sixty-seventh year.

Later on, in the same list, we find the name of James Burnes (K.H.), M.D., Physician-General of Bombay, and a kinsman of the poet Burns. He was born at Montrose, where his father, James Burnes, was Provost, on February 12, 1801, and, after being trained for the medical profession at Edinburgh, Guy's and St. Thomas's Hospitals, arrived at Bombay, in company with his brother Alexander, in 1821.

He filled various minor posts in the Indian Medical Service, and was successful in the open competition for the office of surgeon to the Residency of Cutch. He accompanied as a volunteer the field force which, in 1825, expelled the Sindians who had devastated Cutch and forced the British brigade to retire upon Bhuj. The Amirs of Sind then invited him to visit them as the most skilful of physicians, and their best friend, and cementer of the bonds of amity between the two Governments. On his return he was complimented by the Government on the zeal and ability he had displayed at Cutch and Hyderabad.

His narrative of his visit to Sind, sent in as an official report to the Resident at Cutch, is still the best account we possess of the country, and a valuable contribution to the geography of India. It was republished in book form with the title "Narrative of a Visit to Sind" in 1830. In 1834

Burnes, during a visit to England on sick-leave, was made LL.D. of Glasgow University, and F.R.S., and received the knighthood of the Guelphic Order from William IV.

On his return to India in 1837, he was at once appointed Garrison-Surgeon of Bombay, and afterwards Secretary of the Medical Board, Superintending Surgeon, Surgeon-General, and finally Physician-General. He was also a member of the Board of Education, and took an acute interest in the diffusion of medical training among the natives. Impaired health compelled him to resign in 1849, after twenty-eight years' service, and his departure was commemorated by the foundation of four medals to be competed for at the Grant Medical School, Bombay, the Montrose Academy, and the boys' and girls' schools at Byculla. Burnes was a zealous Freemason, and held the office of Grand Master for Western India, in which capacity he opened a lodge for natives at Bombay in 1844.

Besides his "Narrative," he wrote "A Sketch of the History of Cutch" (lithographed for private circulation, 1829) and a short history of the Knights Templar.

On his return home he occupied himself with the affairs of his country, where he became a Justice of the Peace. He died in London, September 19, 1862.

Francis Buchanan and James Burnes must be regarded as the first medical officers of the Honourable East India Company (after Dr. John Fryer, previously mentioned), who attained to eminence not only in medicine, but as scientific observers, travellers and diplomatists. They were doubtless specially selected by the directors of the Honourable East India Company in England.

It seems probable that up to the year 1795 there were no fixed regulations for the recruitment of medical officers in India. An Examining Board certainly seems to have existed about this time, but there is no record of the manner in which it carried out its duties. Probably it was rigid enough when first constituted; possibly it sometimes rejected worthy applicants, and was at last driven by necessity

to pass men but ill-fitted for the position to which they aspired.

In 1758 in England, Oliver Goldsmith, who had studied medicine in Edinburgh and practised as a physician in Southwark—though perhaps to little purpose—applied for an appointment as physician and surgeon to a factory on the coast of Coromandel. The appointment was obtained for him through a director of the East India Company. He would have had a salary of £100 a year, and the practice was said to be worth £1,000. His last book was to pay for his passage, but, sad to say, he was, on December 23, 1758, examined at Surgeons' Hall, and found not qualified for a certificate as surgeon's mate.

About this time, or perhaps later, an instance is recorded of a person who had been a butcher on board an East Indiaman, passing the Board. This person was so ignorant as to sign himself "Sergeant" instead of "Surgeon"!

It was not till 1795 that the Board decided that its medical officers should be armed with diplomas, although on October 20, 1763, an order had been issued which regulated the formation of the Bengal Medical Service, or, as it was then called, "the establishment of surgeons employed under this Presidency."

From January 1, 1764, the total strength of this service was fixed at forty. Of these the four seniors were to reside at Calcutta, and to be entitled head-surgeons—"the two first to have the hospital contract." The next eight were called surgeons. The first four of these were to be stationed at Patna, Cossimbazar (Murshidabad), Chittagong, and Dacca; the four juniors to be surgeons to the army, and all to succeed in rotation to be head-surgeons at Calcutta.

The remaining twenty-eight were entitled surgeon's mates. Of these "the eight eldest upon the list were to live in Calcutta, the next eight to be surgeon's mates to the army, and the other twelve to be surgeon's mates of the Sepoys, one to each battalion."

The head-surgeon and surgeons were paid 10s. a day,

with Captain's batta on field service; the surgeon's mates at Calcutta 7s. 6d. per day, each with Lieutenant's batta when in the field.

The order winds up with the words, "Agreed that we write to the Court of Directors to send us out some surgeon's mates to complete this establishment."

The "hospital contract"* above named was the permission granted to the favoured medical officers to supply and charge for all medicines and instruments, hospital necessaries and diet, doolies, and other means of transport. Under this system, combined with the paucity of medical officers, many contracts sometimes fell to the lot of one individual, who received for each contract full allowances.

"In Lord Lake's camp," to quote from a medical journal published in Calcutta early in the nineteenth century, "such were the enormous receipts in consequence of contracts for supplying regiments with medicine, diet, and doolies, that some medical officers were said to have realized the largest fortunes ever made in the country.

"The intelligence of these brilliant fortunes reached Great Britain. Gentlemen of the first families soon sent their sons to study medicine, and the Indian service became filled with accomplished and able men; indeed, such were their literary acquirements that many were employed in the Political Department, while the press and houses of agency were principally conducted by them."

There can be no doubt that this power of making money (probably not a little exaggerated) drew into the service many men fully willing to enrich themselves by trade.

It appears from Dodwell and Miles's list that in the last decades of the eighteenth century the admissions of assistant-surgeons rose from units to tens. In 1783, 1796, and 1799 respectively, there were admitted in Bengal 58, in Madras 16, and in Bombay 26. From the small beginning

* The contract system ceased in 1815, much to the benefit of the service and every officer belonging to it.

in 1764 the Indian Medical Service has increased in numbers and repute, till it has become one of the most honourable and honoured services in the Empire.

It is noticeable that in the year 1783 the strength of the service rose from 40, at which it was first fixed, to about 150. The twenty years which saw this increase were coincident with the spread of the English government over the kingdom of Mysore in Southern India, and over the whole of Bengal, Behar, and Orissa in the North, which necessitated a large increase in the establishment of every service, military and civil.

After the great recruitment in 1783, there was, of course, a lull, but appointments continued to be made up to 1856, when the number admitted had attained its maximum. In the sad year of 1857 the service was greatly reduced by death and retirements, and its usefulness was curtailed by the many disbandments of the old Sepoy regiments which then took place. A constant supply of medical officers with British regiments poured into the country, and the Indian Medical Service became in a great measure superfluous. In 1860, therefore, it was temporarily closed, and for five years remained unrecruited. But by 1865 it had become evident that a Medical Service composed of men highly educated both professionally and generally was for India an absolute necessity.

The re-opening of the services in 1865 was followed in 1880 by an order which caused some trepidation in the minds of newly-joined officers.

Under orders received from the Secretary of State, the Right Honourable the Governor-General in Council was pleased to direct that from March 31 the British Army Medical Department and the Indian Medical Department should form one for the medical administration of the army in the three Presidencies. At the same time the number of administrative medical appointments was reduced.

This order was at the time regarded by some as a death-stroke to the Indian Medical Service. It was really a

blessing in disguise. It was soon followed by orders which made the Surgeons-General of the Departments each independent of the other. It accelerated promotions which had long been stagnant. It provided increased pensions for all medical officers, from the youngest to the most ancient, who had reached the age of compulsory retirement.

Since 1880 the Indian Medical Service has been completely reorganized, and in many respects improved. Study of its past history reveals how closely it has been associated with the foundation of the British Empire in India; how great has been its influence in supporting and developing it, in harmonizing differences, and in reconciling to British rule the multitude of races and tribes which constitute the people of India. It tells how much has been done by Indian medical officers to increase our knowledge of Indian products and the development of industries arising out of them; how it has originated and developed great departments of the public service.

Indian medical officers have been largely concerned in bringing to perfection the Postal and Telegraph systems, the Forest Department, the management of Gaols, the system of State Sanitation, and have held medical charge—executive and administrative—of the Military and Civil stations of India. They have helped to introduce the study of English literature and science into the scheme of native education in India.

They originated the system of medical education which is now carried on in the Presidency towns and numerous other centres. By means of Indian medical officers a system of medical education has been established, and has resulted in the formation of a class of well-educated native medical practitioners and subordinate warrant medical officers, who administer the hospitals and dispensaries provided everywhere by a benevolent Government for the relief of the sick and suffering.

A hundred and fifty years have passed away since the Indian Medical Service consisted of a few imperfectly-

educated medical adventurers, who for a long time were ill-remunerated and held in scant esteem by their fellow-workers in India.

Times have changed, and the Service now holds the proud position gained for it by men of the last century who have joined the great majority. Grievances, real and imaginary, under which the Service formerly laboured have been greatly redressed.

Substantive military rank has been granted. Medical officers exercise military command in their own department, are no longer subject to the command of their military juniors, and need no longer be addressed by an academic title which some of them never possessed and did not aspire to. Pay of rank has been materially increased, so that none need now enter upon trading speculations to insure a sufficient income, while all are allowed to improve their pecuniary position by the private practice of their profession.

The Indian is now the best-paid and the best-pensioned Medical Service in the Empire. Entrance to its ranks is guarded by the necessity of passing a special examination, and all its advantages are thereby secured for men who are willing to devote to it the best part of their lives. It seems likely that still further improvements, in accordance with the importance and responsibility of their duties, may be anticipated.

It seems hardly fitting that this brief history, tracing the evolution of the Indian Medical Service from its earliest beginnings, should be closed without allusion to those who during the last century did so much to raise its prestige, and to advance the material welfare of India generally. The range of their knowledge has been wide, embracing not only medicine and surgery, but language, literature, and science, of which the practical outcome is seen in the part taken by medical officers in the foundation and development of great Departments of State, such as the Post-Office, Electric Telegraphy, Forestry, Education, etc.

Only a few of the principal of these can be mentioned: Horace Hayman Wilson, Aloys Sprenger, and Bellew, as representing Oriental Languages; Falconer and Mac-Lelland, Geology and Paleontology; O'Shaughnessy and Macnamara, Electricity and Chemistry; Russell and Jerdon, Natural History; Paton, Post-Office; Chevers, Medical Jurisprudence; Cleghorn, Thompson, Wallich, Anderson, and King, Botany; Brett, Morehead, Twining, Waring, the Goodeves, Ranald Martin, Maclean, Nicholson, Fayrer, Partridge, Birdwood, Macpherson, Mouat, Webb, Alexander Grant, Hare, Forsyth, Eatwell, and many others, Medicine, Medical Education, and Surgery.

These, of whom many have passed away, helped to build up a Service now second to none in prestige, and certainly containing in itself the potentiality of further development and success.

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## PART II.

THERE is no record of an Embassy sent to the Moghul Court by Henry VIII. or by Queen Elizabeth, but there can be no doubt that during their reigns English travellers, merchants, and explorers, visited the East Indies under their auspices. Henry VIII. would naturally be anxious to carry on the policy of his father, Henry VII., who, in 1496, granted letters patent to John Cabot and his three sons to fit out two ships for the exploration of a north-west passage to the Orient. In this attempt they failed, as did Sir Hugh Willoughby in 1553.

Many subsequent attempts to discover a north-west passage were made by Frobisher, Davis, Hudson, and Baffin, but it was not till Drake had circumnavigated the globe in 1577 that the way to India by the rounding of the Cabo Tormentoso was established. The first Englishman who actually visited India in the sixteenth century was Thomas Stephens, in 1579. His letters to his father are said to have roused great enthusiasm in England to trade directly with India.

In 1583 three English merchants, Fitch, Newberry, and Leedes went out to India overland as "mercantile adventurers."

Camden* records that in 1591 "*George Riman*, a very stout seaman, and *James Lancaster* made a voyage with three ships to East India. The Cape of Good Hope they happily past; at *Cabo Corriente* a Tempest carried away

* "Annals of the Historie of Elizabeth." London, 1635.

the Admirall, 'which with *Riman* was drowned.' Shortly after the Skye roared with horrible thunder, and in the other two ships foure of the Saylors dyed having their necks wrung aside with force of lightening and above 90 were stricken blinde, others lamed, some as it were racked, who notwithstanding, every one recovered beyond expectation and undauntedly held on their voyage."

"At the *Isle* of *Comoro* whilst they took in fresh water, thirtie of them with the Master were slaine by the *Barbarians*.

"At *Zanzibar* they wintered. Towards the spring they took some ships of the *Mahometans* of *Pego* with wooden Anchors, and some others of the Portugals laden with Pepper and Rice.

"Afterward when they were come to *Zeilen** and then to *Nicubar*, an island plentiful of Cinnamon and Diamonds: and now had no more than 33 men alive, and victuals failed them, they set sayle homewards: at the *Isle of St. Helen*, having refreshed themselves a little, they were driven through the ocean to *Trinadada*, where they found no comfort."

"At length they lighted on *Charles Barbotier* a Frenchman who relieved them: with whome they began to deale not with that faithfullnesse which they ought, but such as miserable seamen are wont to use, but he deluded their cunning."

"Afterwards while *Lancaster* refreshed himselfe with some men in the *Isle of Anglesey*, the ship was carried away by foule weather with seven most distressed men, and returned home very rich, and they that were left behind were no less distressed, but brought home by the courtesy of the Frenchmen, and were the first that taught the Englishmen the manner of trading in East *India*."

"In the meantime, *Thomas Cavendish*, who having sayled round about the world, had returned home with glory in the yeare 1578, began a voyage this yeare with five ships to the straite of *Magellan*, which when he could not pass

* Ceylon (?).

by reason of contrary winds, and being driven back to the coasts of *Brazil*, he there died an untimely death, charging *John Davies* in his last will and testament as if he had treacherously forsaken him."

Notwithstanding these and other misadventures and disasters, Queen Elizabeth, ever anxious for the enrichment of her subjects, the increase of navigation, the honour of the kingdom, and the amplification of commerce, instituted at the close of the sixteenth century a Company or Society of East India Merchants with large privileges.

The merchants sent thither with three ships, James Lancaster, who in 1594 had valiantly won *Ferman-back** in *Brazil.*

Afterwards they sent a fleet thither every year to their profit, and for the honour of the English nation placed *empories* in the Empire of the Great Moghul in *Massolupatan, Bantan, Patiane, Siam, Sagad, Mecassar* and also in *Japan,* and with happy victories repressed the insolence of the enemy, and Turkish treachery.

This act of Queen Elizabeth, it must be said, was not altogether approved of by her councillors, some of whom feared that it would lead to a mass of silver being exported from England and to a multitude of sailors being every year "consumed." However, on December 31, 1600, the first English East India Company was incorporated by Royal Charter under the title of the Governor and Company of Merchants of London trading to the East Indies But many rival companies arose, and it was not till 1709 that the London and other companies were amalgamated under the style of "The United Company of Merchants of England trading to the East Indies."

From the year 1600 to 1612 the Elizabethan Company made annual voyages to the East, the expenses of which were borne by special subscribers who gathered in the whole of the profits. These usually amounted to 100 per cent. After 1612 the voyages were conducted on joint

* Pernambuco.

stock account, and many subscribers who had hitherto failed to pay their shares began to come in.

But the prospects of the Company in India were very poor. A factory had indeed been established at Surat, but all endeavours to obtain trading privileges had failed. Its suppliants at the Court of the Moghul, falsely calling themselves ambassadors from the King, had been "laughed upon." The plague, which had been several times epidemic in England during the latter part of the sixteenth century, made an appearance in the Western coasts of India, to which some cases were undoubtedly brought by infected ships from England. These vessels were no doubt each supplied with medical officers, "Surgeons twoe and a Barber," but they were looked upon as useless. They could not heal themselves, and only headed their fellows in "funeral marches to the grave."

This liberal establishment was sanctioned in the year 1600. In earlier times energetic commanders undertook the medical treatment of their crews. Drake, in his voyage to the South Sea in 1577, "being very careful of his men's health, on coming near the equator, let every one of them blood with his own hands." He probably thought that cooling treatment was necessary for them, as at *St. Jacamo* he had taken a Portugal ship laden with wine, and "thereafter finding a great calm and much thunder and lightning, he got little or nothing forward, and in full five and fifty days saw no land till Brazil presented itself to his crew." The sickness and mortality on board of Queen Elizabeth's ships was very great.

In 1585 an expedition went to the West Indies, commanded by Sir Francis Drake, Admiral of the fleet, and Christopher Carlil, General of the land forces. The fleet consisted of "21 shippes wherein were '2,300 voluntary souldiers and saylers.' Arriving at the Isle of St. Jago, neere Cape de Verde, they sacked the towne, but found not a whit of gold but of meale, wine, and oile great stores. The 14th day after, they put from that coast and many

which kept watch abroad in the open ayre were taken with a sharp disease called the Calenture, and dyed, which disease is familiar in that unwholesome ayre, to strangers that come thither and lye abroad in the evening."*

"In this voyage were lost 700 men, all of them almost of the Calenture." So great was the misery of the seamen in this voyage that together with Ralph Lane, their captain, they with one voice besought Drake that he would carry them back again to their own country, "which he willingly did."

Camden records that these men which were brought back were "the first I know of which brought into England that Indian plant which they call *Tobacco* and *Nicotia*, and use it against crudities being taught by the Indians. Certainly from that time it began to be in great request, and to be sold at a high rate, whilst very many everywhere, some for wantonness, some for health, sucke in with insatiable greediness the stinking smoke thereof thorow an earthen pipe, and presently snuff it out at their nostrils; insomuch that Tobacco shops are kept in Townes everywhere, no less than Taphouses and Taverns."

"So as the Englishman's bodies (as one said wittily) which are so delighted with this plant, may seem to be degenerated into the nature of *Barbarians*, seeing they are delighted, and think they may be cured with the same things which the *Barbarians* use."

"Notwithstanding all failures," Camden says that in 1595 another fleet consisting of "six of the Queens shippes, and twenty other shippes of war were sent into America by Queene Elizabeth." Poor Queen! who had to bear all. "O, hard condition, twin born with greatness, subjected

* They suffered from the form of malaria, now called chill.—W. B. B.

The recognition of chill as a cause of the intermittent and remittent fevers in India must be attributed to Assistant-Surgeon C. F. Oldham (now Brigade Surgeon), Bengal Army (retired), who in 1871 published an interesting and exhaustive work entitled, "What is Malaria?" The book is probably now out of print. Its re-publication for the use of students of tropical medicine is very much to be desired.

to the breath," of lords and councillors. This expedition sailed under the command of Admiral Sir John Hawkins, and Sir Francis Drake with equal authority at sea, and Sir Thomas Baskerville, General over the land forces.

Differences arose between the three commanders, especially as to the necessity of victualling the ships. Hence came delay, and when the English finally attacked *Porto Rico* they were beaten back by the Spaniards with the loss of many men slain.

Retreating towards *Panama* with 750 men they met with many difficulties, and finally returned to their ships, "weary and pined for lack of victuals," and their companies weakened. "In the meantime, to wit the 28th of January, dyed Sir Francis Drake of the paine of the fluxe and grief for his adverse success."

But a short time before, Hawkins died of grief "for the grudges arisen between him and the commanders, being much lamented by the Saylers." These two great commanders no doubt really died from scurvy and dysentery, the result of scanty putrescent food and the malaria generated in the filthy holds of their ill-found and ill-cared-for vessels. Their fleets certainly had no medical officers worthy of being so called, but a whole college of physicians would have been insufficient to save men who lived daily face-to-face with starvation, disease-infection, and death.

The Charter or Privilege for fifteen years granted by Queen Elizabeth to certain adventurers for the discovery of the trade to the East Indies, nominates a number of councillors, and appoints Thomas Smyth, Alderman of London,* the first Governor of the East India Company;

* "Dictionary of National Biography," Sidney Lee. Afterwards Sir Thomas Smyth, of Westenhanger, in Kent. He was an active member, and for some years governor of the Muscovy Company, treasurer for the Virginian plantations, several other colonial companies, and of the Company of Merchant Discoverers of the North-west Passage.

He was accused of participation in Essex's rash rebellion. He for some time lost the favour of Queen Elizabeth, and was with his wife consigned to the Tower. He succeeded in clearing himself of the charge, but not

but it does not order or suggest the formation of a medical establishment, nor does it contain any mention of John Woodall, who appears to have been afterwards appointed Surgeon-General to the East India Company.

John Woodall was born about the year 1559. In 1589 he went over to France as a military surgeon in the troops sent by Queen Elizabeth to the assistance of Henry IV. under Lord Willoughby. He seems not to have returned at the expiration of his service, for we find him after this period travelling through France, Germany, and Poland, in which countries, he says, for want of better and more beneficial employment, he was forced for his maintenance to practise in the cure of the plague.

He lived for some time at Strade in Germany, among the English merchants residing there; and was employed by some ambassadors sent to that place by Elizabeth as their interpreter in the German language.

On his return to England, after the death of the Queen, he settled in London, and made use of his former experience in a close attendance on the sick during the great plague which raged in the first year of King James's reign.

He became a member of the Surgeon's Company, and about the year 1612 was elected Surgeon to St. Bartholomew's Hospital, and likewise Surgeon-General to the East India Company.

This latter office was a post of great trust and consequence, since he had the charge of appointing surgeons and mates to all the Company's ships, and furnishing their chests with medicines and every other necessary article.

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till after the Queen's death did the Company venture to reinstate him as their governor.

In 1621 he insisted on resigning, much to the regret of the Company, and of all interested in maritime discovery or enterprise. He died September 4, 1625.[1]

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[1] "First Letter-book of the East India Company," Sir G. Birdwood and Foster. London, 1893, p. 10, *note*.

It was on this occasion that he wrote his "Surgeon's Mate."*

It cannot be doubted, from many circumstances, that he was for some considerable time a sea-surgeon, and made one or more voyages to the East Indies in that capacity; but at what period of his life this happened cannot from his works be ascertained. As he mentions but eight years for the term of his travels by land, a period of three or four years will be left to complete the time between his first going to France and his return to England after the death of Queen Elizabeth; and this might probably have been spent in the naval service. We are informed that he was likewise sent into Poland, on some business of importance to the State, in King's James's reign.

In 1626, when the naval forces of the kingdom were augmented, and warlike preparations were being carried on with vigour, the charge of fitting out the chirurgical part of His Majesty's service was committed to the corporation of surgeons, and by them to Woodall. The King, Charles I., on this occasion augmented the pay of the navy surgeons, and gave a bounty, proportioned to the rates of the ships, towards furnishing the medicine-chests.

Woodall at this time wrote his short treatise entitled "Viaticum," being a kind of appendix to his former work for the younger surgeons. It was written in 1626, and printed first in 1628.

From this period we learn scarcely anything concerning him, except that he was for a time master of the Surgeon's Company, and that he reached his sixty-ninth year in 1638, when he collected all his works into one volume, printed in 1639, which, besides his "Surgeon's Mate" and "Viaticum," contained a Treatise on the Plague and another on Gangrene and Sphacelus.

Woodall dedicates his works to the King, the Governor, and Committee of the East India Company, and the master

* "Biographical Memoirs of Medicine." By John Aitkin, Surgeon. London, 1780. (Library of Royal College of Physicians.)

and governors of the Surgeons' Company. In his epistle to the latter, he asserts that for forty years past no English surgeon but himself had published any book of the true practice of surgery for the benefit of young practitioners.

In the preface he gives a short history of medicine, which shows him to have been a man of reading; and he adds a sensible and modest defence of surgeons prescribing diet and medicines to their patients in certain cases, urging that as they are liable to be called upon to serve their country in situations where the whole medical treatment must be entrusted to them, it is unreasonable to deny them, in private practice, the exercise of such knowledge as they are obliged to possess.

Woodall's works show great powers of observation, and indicate his desire to extend the practice of his art within the domain of pure medicine, with a dread of, rather than a fear for, physicians. The treatises on Sphacelus and Gangrene show that he was beginning to understand the nature of pyæmic infection, and that he knew the necessity of removing from the system every kind of impurity.

In the use of drugs he was cautious. He reduced the *mithridate*, a compound much used before his time in the treatment of plague, from seventy-five to nine simples, and, *ad captandum vulgus*, he introduced an *aurum potabile*. He recommended lemon-juice for the treatment of scurvy.

As to certain other remedies, he says: "And this farther is to be added, that such as are strong and sharp are esteemed to be venemous, and there is no venome or poysone to be put to poison, for every such thing as be added to his like, as the general rule saith, maketh that more such."

Woodall was not only an excellent surgeon; he was an able administrative officer. On his appointment he at once drew up regulations for the surgeons under him, and "faithfully discovered the due contents of their chests;" as would be said in the present day, he cut down their indents, and so reduced their profits and the company's expenditure for drugs.

This raised up for him enemies, and in a letter to the East India Company, dated Table Bay, June 20, 1615,* he was accused of having caused "great abuses in the chirurgeons chest—puttingdivers boxes of one simple, whereas he writeth in their superscriptions to be diverse; drugs rotten, unguents made of kitchen stuff. Boys that have no skill, thrust into places of chirurgeons. He is accounted to be guilty of the death of so many men as perish through his default."

But Woodall did things more terrible than these. In 1620 he became involved in the disputes between Sir Thomas Smyth and Sir Edwin Sandys, both being directors of the East India and other companies.

"Chalte chakke dekh khabir a ro
Do paten ki bich a sabit giya na ko."

"The whirling grindstones having seen,
The poet wept and said,
'Who can escape from such a mill
Without a broken head?'"

Woodall sided with his patron, Sir Thomas Smyth, and voted for the surrender of the Company's charters to the Crown.

On July 18, 1620, he was suspended from the court of the company pending an inquiry into his "foul aspersion upon Sir Edwin Sandys," but it was not long before he was reinstated, and he held the office of Surgeon to St. Bartholomew's Hospital till his death in 1643.

Woodall was a man of foresight. He knew the time must come when a company of merchants, without navy or army, would be unable to govern India—when India herself would welcome the protection of an Imperial Crown.

His long experience in the treatment of plague had made him lose faith in drugs; he knew, as Defoe years afterwards declared, "that the best physic for the plague is to run away from it."

* "Letters received by the East India Company," Foster, vol. ii., p. 184.

Modern science has brought to us the knowledge that when cholera or plague makes its appearance, the most effectual remedy is to move from the stricken spot, and to cleanse and purify infected dwellings.

Woodall was the first and last Surgeon-General to the East India Company. The rank was not revived in India till the Government passed from Company to Crown.

THE END.

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