

as frequently happened, I passed an hour or two at his country seat, were among the severest trials to which my own nostrils were ever exposed. For, although this gentleman was very proud of his stock, I blush to say that the styes and the yard in which the animals passed the greater part of their lives, were kept in the most flagrant defiance of all sanitary laws. The sight of the black ooze—to say nothing of the penetrating stink—was enough to make any one stand aghast who had been brought up in sound pythogenic principles. From the newborn litter to the ancient sow, pigs of every age might be seen there, whose only bed was dung in every conceivable stage of fermentation. And yet, in spite of all this, not only did the successive generations of twenty years pass away into pork without any epidemic of pythogenic fever, but not a single instance of that disorder, or of anything resembling it, ever occurred among them. By every pythogenic law, they ought to have perished a hundred times over; but all they really did was to grunt and grow fat, and die under the hands of the butcher. Indeed, with the exception of two Irish pigs, which, under strong temptation in early life, were supposed to have indulged habitually in human excrement, and had become infested with cysticercus in consequence, my friend was unable to trace any single ill effect to the incessant commerce of his pigs with faecal matter.*

The experience of this homestead is the experience of a thousand others scattered through the land. All the early part of my professional life I passed in country practice; and, although I was constantly being consulted by farmers and by the poor respecting the maladies of their pigs and other live stock, and constantly heard the pigstye unhesitatingly indicated as the cause of typhoid fever in the family of the owner, I never saw or heard of a single case of this disorder among pigs themselves.

The dilemma into which the pythogenist has been betrayed by this infelicitous appeal to swine may be put in another form.

The chief source of the poison which causes typhoid fever is, according to the pythogenic theory, human faecal matter in a state of fermentation.

As identity of nature implies identity of cause, the poison derived from this same source must be capable of exciting typhoid fever in the pig.

As, further, pigs and men, by the very terms of the case, are, in respect of this fever, on the same footing, it would, I presume, naturally follow that the faecal matter of the pig must be capable of exciting typhoid fever in man. The pigstye and the attendant dungheap figure largely, in fact, as a cause of typhoid fever, in the writings of the pythogenic school.

As—once more—in all these points the relations, if they exist at all, must, from their very nature, be strictly mutual, it should equally follow that pigs, also, must be liable to contract typhoid fever from their own faeces in a state of fermentation. But not only does the whole life of pigs bear evidence against this, but their habits render it equally sure that, as far as typhoid fever is concerned, the faecal matter of man is innocuous to them.

This, as it appears to me, is a very serious dilemma. It is for those who, in the teeth of every sort of evidence, still hold to this theory, to help us out of it as they best can. Meanwhile, if the facts

* This case is not recommended as an example to follow. By great care as to food, and as to the sources from which he renewed his stock, this gentleman kept his pigs free from disease, notwithstanding the dirty condition of his piggery. But pigs, like men, are, *ceteris paribus*, the more healthy the cleaner they are kept. The filth amid which they are so often kept, leads to their being infested by parasites to an extreme degree, and also to the rapid extension of infectious diseases among them when once introduced into the sty.

be as, according to this theory, they would seem to be; if it be true that typhoid fever is caused in man by his own faeces and by the faeces of the pig, while the latter is proof against both,—I can only say that the fact betrays a dispensation of Providence in favour of Porcus of which Homo has just reason to complain.

Transactions of Branches.

SOUTH-WESTERN BRANCH.

PRESIDENT'S ADDRESS.

By THOMAS L. PRIDHAM, Esq., Bideford.

[Delivered June 22, 1865.]

GENTLEMEN,—My first duty is to thank you for the honour you have done me by electing me the President of the South-Western Branch for the present year. Having said this much, my pleasure is, to welcome you to this interesting and beautiful part of our county; famed as it is, not only for its rocky coast and woodland scenery, but also for the historical events which in connection with the southern part of our county have conduced to make England what she is, the emporium of the world.

I can assure you, that I am quite aware of the responsibility I have undertaken in presiding over this meeting; feeling, as I do, how far short my best efforts must be, when compared with the eloquent and learned addresses which have been delivered by members of the Association in this division.

Before I begin to speak on medical subjects, it may not be uninteresting to those who now visit North Devon for the first time, to dwell for a few minutes on subjects which may perhaps be considered foreign to the intentions of the present meeting.

History tells us that, about the ninth century, the Danes made a descent upon this coast, with a powerful army, and landed on our burrows. Under the command of Odon, Earl of Devon, they were met by the stout hearts and trusty hands of the men of these parts, who were entrenched at Kenwith Castle, about a mile hence, and, after a bloody battle, were defeated and driven into the sea near Appledore. On the shore is to be seen a huge stone, which marks the spot where Hubba, the Danish king, was slain, and is called Hubba Stone to this day.

We cannot boast of having produced such great and learned men, as Milton, Shakespeare, Locke, or Newton; but we can boast of the good old men of Devon who lived in the days of "Good Queen Bess"—men who were remarkable for their acts of valour and wisdom. It was from this port that Raleigh and Drake sailed on their voyages of discovery and adventure. In the small village church of Landcross, just a mile hence, may be seen the baptismal register of George Monk, afterwards Duke of Albemarle, who first trained the Coldstream Guards to deeds of arms; and subsequently was the means of establishing Charles II on the throne of England. It was here that the Grenvilles (kinsmen of William of Normandy) lived, from the time of the Conquest to the close of the sixteenth century; men renowned in the history of our country as statesmen, and as warriors both by sea and by land. It was from this port that the brave Sir Richard Grenville sailed to meet the Spanish Armada. History records that this said Sir Richard Grenville on one occasion engaged the whole Spanish fleet single-handed, in his ship called the *Lion*, which was manned by men of North Devon; nor did he surrender until all his powder was consumed, and his crew reduced to but a few. After

sinking several of the enemy's ships, he received his death-wound in the unequal contest, cheering his brave men with these memorable words, "Remember, my lads, you are as near Heaven at sea as you would be on land." It has been said, that this was the most heroic sea-fight the world has ever known. In our beautiful parish church, is a monument erected to the memory of Sir Thomas D. Grenville, Lord High Admiral of England. Sir Bevil Granville fell at the battle of Lansdown, whilst fighting in the royalist cause. His remains were conveyed to Stowe in Cornwall, and buried in the parish church of Kilkhampton.

I will now turn to incidents and men of modern date, of which we may also claim a goodly share.

It was here that Charles Kingsley passed many of his early days, and received part of his education under the Rev. Derwent Coleridge; and, in later days, whilst residing here, he wrote that (to us) most interesting historical novel *Westward Ho*. It was here that Kingsley's brother-in-law, Anthony Froude (who was pronounced in a leader in the *Times* "the most elegant prose writer of the age"), wrote his first two volumes of the *History of the Tudors*. It was within a mile of this, that the brave and admirable sailor, Sir Richard Keats, resided, who was visited by Lord Exmouth, in order to plan the attack on Algiers; which attack, we well know, was perfectly successful. It was at Orleigh Court, about three miles hence, that the intrepid Captain Speke, the discoverer of the source of the Nile, was born. Two of our judges who at this time adorn the Bench, are both closely connected with this town and neighbourhood. I allude to Judge Montague Smith, who was born and educated in Bideford; whilst Baron Channell's immediate family are natives of Appledore. Our painters, too, come forth in glowing colours—Turner, Lee, Lane, and Hughes. The last named, Arthur Hughes, a most accomplished gentleman, was created landscape painter to our most gracious Queen. Gay may be numbered amongst our poets; he was a native of Barnstaple. It was here that Hervey wrote his *Meditations*. Nor must I pass unnoticed our postman poet, Edward Capern, who still goes his daily rounds with his letter-bags on his back. He is entirely a self-educated man, of great powers of mind. He has been pronounced by Walter Savage Landor (perhaps the most able critic of his day) to have written odes equal to the best of Burns the Scottish bard. His descriptions of rural life and rural scenes are charming; whilst his "Battle of the Great Redan", and other pieces on the Russian war, secured for him a pension of £40 a year under the influence of Lord Palmerston, who, by the way (to my knowledge), is a great admirer of our poet. Our Queen, too, has spoken of him in terms of commendation.

I trust you will pardon this digression. I now proceed to speak on subjects which more particularly belong to ourselves as members of the medical profession, and will allude to some of the epidemic diseases which I have witnessed in this locality. I will first speak of the cholera in 1854; that most fearful of all diseases which have visited this land in modern times. If ever the spread of this disease could be traced to assignable causes, it would be so traced in the town of Bideford, as I will proceed to shew. The town, you can perceive at a glance, is well situated for a most perfect system of drainage. The River Torridge flows and ebbs over a bed of sand (the *débris* of granite); and it would be supposed that all offensive drainage would be carried twice a day into the sea. But what was the fact at the time of the visitation? The drains of the town fell on to a bed of accumulated filth, close to the wall of the quay; from which, it was remarked, the most offensive effluvia arose. This deposit of mud had only recently

taken place, in consequence of a bank having been carried out so as to intercept the course of the river; before which time Bideford was considered a most healthy town.

Early in the month of August, the cholera was brought into the town from London, by a person under the influence of choleraic diarrhoea, which ended in Asiatic cholera. Although severe in its character, the case did well. The remedies employed were laudanum, chloric ether, ammonia, and chalk, with artificial heat locally applied. In no subsequent case, did I see so much suffering from spasm and cramp. The treatment adopted in this case did not answer in cases which followed. The drainage in the house was good. We had no other case in the town for more than a month, although cholera prevailed in an adjoining parish, where sanitary matters were in a wretched state.

About September 10th, there came into the town, from an infected district, a family suffering from choleraic diarrhoea. A friend visited the family, sickened of cholera, and died in a few hours. The disease now spread rapidly, visiting the worst drained parts of the town, particularly where there were no stench-traps provided for the houses. At the time when the cholera visited the town of Bideford, the wind from the east prevailed, shifting occasionally from north to south; and it was a remarkable fact, that cholera broke out in those parts directly opposite to the set of the wind, which blew up the drains that emptied themselves on the bank of mud; which, as I have before stated, was loaded with the offal of the town. It is worthy of remark that, on the east side of the river, where there is no deposit of mud, there was only one case of cholera, and that was in a person who, whilst suffering from choleraic diarrhoea, was conveyed thither from the west side of the river.

To make my observations still more correctly understood, I would mention a fact that, in one infected district, the houses on one side of the street were badly drained, and the victims were many; whilst, on the other side of the street, the drainage was good, and there was not a single case of cholera. Our union workhouse is considered a model establishment. It is governed by a well disciplined pensioner of the Guards, who is admirably adapted for his responsible post. The house is well ventilated, well lighted, has a plentiful supply of water, and a good system of drainage. In this establishment, there was not a single case of cholera; although on each side of it there were cases.

I have dwelt somewhat at length on the important subject of drainage; being well convinced, from the opportunities I have had of witnessing the effects of its influence on epidemic diseases, how much evil might be avoided, and valuable life spared, by a thorough system of drainage being adopted in every town. I would also add, that over-crowded rooms, and a want of sufficient ventilation, have a most baneful tendency.

Having said thus much regarding the manner in which cholera invaded our town, it may not be uninteresting to add a few words as regards the treatment which I adopted, and its results. I would remark, that diarrhoea prevailed in the town as an epidemic at the same time as the Asiatic cholera. It was calculated that 1000 persons, out of a population of less than 6000, applied at the *dépôts* for diarrhoea medicine; but there was no fatal case from diarrhoea that I am aware of. The medicines given consisted of laudanum, chalk, chloric ether, and camphor. The treatment on which I chiefly relied in cases of cholera, was nitrous acid, given, in proportion to the age of the patient, from five to thirty drops in cold water every half hour. In almost every instance, it allayed

the sickness, as well as the choleraic discharges from the bowels. The remedy required to be carefully watched; for, as soon as the discharges ceased, it became necessary to withhold the medicine, or else severe pains of the stomach and bowels would ensue, which, in more than one instance, continued until death put an end to all suffering. Artificial heat was extensively employed. With the exception of one or two cases, there was no consecutive fever. Under the acid treatment, out of 49 cases, only 9 proved fatal. The number of cases which I reported were 51; of these, 22 passed into a state of collapse, whilst 29 did not. Twelve cases proved fatal out of 51. Three of them were nurses, who, for the sake of gain, washed the clothes of cholera patients (a most fatal error). Whilst the clothes and bedding of the poor were burnt without delay, very few in the middle classes were attacked, and not one in the upper class of life. As little food as possible was given, and no spirit or wine.

There is a fact well worth recording—that, whilst the cholera was at its worst, the whole town was fumigated by means of lighted tar-barrels, and we had no fresh case afterwards; and I was told that the same result followed in an adjoining parish. The efficacy of tar appears to have been relied on in the time of the Plague, which visited this town about two hundred years ago; for there is to be seen in our parish church, a monument to the memory of a Mr. Strange, of whom it is recorded, that he visited and administered to the necessities of those smitten with the plague with his own hands; and that, in order to prevent infection, he smeared his lips with tar; and you may see on the marble lips what remains of some tar, which was smeared in order to record the fact. He was the last of many hundreds who were victims in this visitation of the plague in Bideford.

I chanced to be present at the death of the last case of cholera here; it was in one of the nurses to whom I have alluded. She was, in health, a high spirited woman. Her death was fearful, and attended with peculiar circumstances. Her husband had left her to live with another woman. She sent for him; on his entering the room, with an effort almost superhuman, she raised herself in bed, with a countenance thin and haggard, almost as blue as indigo, and with the horrors of death upon it, whilst, pointing her finger at her faithless husband, she thus addressed him—"I tell thee what 'tis, Elias, if you marry that woman, I will haunt thee to the day of thy death." She then fell back on her pillow, and was dead. Such a scene can never be effaced from my memory.* Whether the man was afraid of seeing his wife's ghost or not, I cannot tell; but true it is, he did not marry "that woman."

How little do we know of the laws which govern the progress of cholera, or of the predisposing cause in those individuals whom it assails. Will chemistry or medical science ever discover these secrets, and thus be able to mitigate these dispensations of an All-wise and Merciful God, which are doubtless sent to tell us that we are but mortal, and to warn us of the uncertainty of human life?

I now proceed to describe an epidemic which visited us early in July 1857. From reports which appeared in the *Times* newspaper some months previously of a fever which prevailed in Lisbon, it would appear that the epidemic to which I allude greatly resembled it in character. It was first noticed on the southern coast of our county, invading the sea-

ports and adjacent towns on the west and north of Cornwall, until it reached this district. The symptoms which characterised the disease were, sudden rigors; loss of appetite, quickly succeeded by great prostration; a small rapid pulse; pupils dilated; pain in the back of the head; drowsiness almost amounting to coma, not unfrequently delirium; a smooth glazy tongue, which did not at any stage of the disease become coated or dark. There was tenderness in the epigastric region. The skin was morbidly hot and offensive, but without moisture, and tinged with bile. There was not much thirst. The urine was scanty and high coloured, throwing down an acid deposit; whilst the secretions from the bowels were relaxed, and generally deficient of bile. The patients were very intolerant both of light and sound. There appeared to be but little remission of fever, which in some instances ran on to thirty days; whilst others, who were in apparently good health when attacked, were dead in a few hours. For instance, the disease invaded the dwellings of two adjoining houses. In one, there were four cases. Three delicate children were first attacked; they lingered for thirty days, and afterwards recovered. The fourth case was in a fine healthy boy, who was suddenly seized with rigor, headache, sickness, involuntary discharges from the bowels; and, lastly, he fell into a state of coma, and died within twenty-four hours. In the other house, four children were also seized, three of whom lingered and died; the fourth, an almost idiotic girl, recovered, the disease but slightly afflicting her. The disease for the most part attacked the children of the poorer class—bad drainage being generally discovered in or near their houses. Under one roof there were nine cases. All became delirious, but only one died. I attended in this epidemic 130 cases, fourteen of which proved fatal. The treatment which appeared to be attended with most success was, mild preparations of mercury, combined with a mild sedative, such as extract of conium or henbane, effervescing salines, and full doses of morphia at night in the advanced stages; whilst the skin was freely sponged with a solution of chlorate of soda.

This epidemic had scarcely subsided when another of a more fearful character made its appearance in nearly every part of the town, attacking grown persons as well as children. The disease commenced with rigor, followed by a sensation of fullness about the fauces, headache, a coated tongue, and a quick pulse. Early in the disease, small white spots made their appearance on the fauces; and the act of swallowing became more and more difficult. The upper part of the œsophagus became involved; ulceration and destruction of parts followed; and the disease assumed a malignant character. Generally, about the fourth or fifth day, a highly offensive mucopurulent discharge came from the mouth, and not unfrequently from the ears, nose, and eyes. If the patients were not relieved, death put an end to their sufferings between the fourth and tenth day. My first efforts to cure consisted of the local application of nitrate of silver, and the administration of quinine and steel wine, with a generous diet. This treatment failing, I was greatly disheartened, as many died. On reconsidering the nature of the disease, I resolved to try an opposite mode of treatment, and accordingly administered the chlorate of potass and powdered gum guaiacum in equal parts, according to the age of the patient, from three grains to thirty grains of each, to be mixed at the time of taking in a small quantity of tepid water, and to be swallowed gradually. Hot poultices of bran, vinegar, and salt appeared to benefit as well as comfort the patient. Beef-tea and good broths were given, with a generous

* I mention this case in particular, as there have been some remarks lately made in our JOURNAL relative to the difference of the cause of death taking place from loss of blood from an artery or a vein, and death taking place from cholera, where the powers of mind as well as of body remain to the last moment.

allowance of port wine. This disease appeared to differ from true diphtheria, as no greyish false membrane was formed; neither did it appear to extend to the air-passages. This epidemic also appeared to travel round the coast, visiting some places with great severity.

Before this epidemic had subsided, scarlatina made its appearance amongst us, and proved to be of a most fatal character, as the diseases became blended, evinced more particularly by the foetid discharges from the nose, mouth, ears, and eyes, to which I have before alluded. Not a few had malignant scarlatina quickly established, and then death was speedy. Amongst the cases which lingered, fifty-six terminated in abscess of the neck. In four of these, blood-vessels in the neck gave way; three died from a gradual loss of blood; and one died almost suddenly, from a large vessel having ulcerated. These cases were most distressing to witness, as nothing could be done to stop the hæmorrhage, which appeared to be venous. Sixty cases terminated with dropsical swellings. These cases were successfully treated by brisk purgatives, or by diuretics with digitalis. Six died from sudden effusion either on the brain, the chest, or into the pericardium. In thirty cases of scarlet fever, secondary fever came on, in which the most distressing sickness prevailed; an acrid green secretion being discharged from the stomach. In this stage of the disease, I did not lose a single patient; my treatment consisting of calomel twice a day, with a mixture of carbonate of magnesia and hydrocyanic acid, in doses proportioned to the age of the patient.

I will here add an account of the number of cases of the three epidemics I attended in 1857 and 1858.

	Cases.	Deaths.	Recoveries.
Epidemic fever	130	14	116
Fever with throat-disease	66	8	58
Scarlet fever with compli- cation	380	53	327
Totals,	576	75	501

It may be remembered by some present, that mention was made in our valuable JOURNAL of these epidemics soon after they prevailed. I have, however, thought it right to bring the history of them more prominently before the members of our profession on the present occasion, connected as they were with this immediate neighbourhood. I have no doubt that the steps which have been taken in sanitary matters will be the means of averting the fatal consequences of future epidemics. Of late years, we have been remarkably free from such visitations; and I believe the town of Bideford again vies, in point of health and longevity, with any in the kingdom.

Before concluding my address, which I fear has already exceeded the usual limits, I will make a few remarks founded on my own personal observations in the treatment of typhus and typhoid fever, and also on the efficacy of morphine in mania, both which subjects have been discussed during the past year.

With regard to the total abstinence from stimulants, strongly advocated by Dr. Gairdner (whose reputation ranks so high), I can only say from my own experience, that there are peculiarities in some constitutions which forbid the use of alcohol in fever, whilst others would sink without it. The object, in all cases of low fever, is to conduct our patients, by the best means in our power, to the critical day, which may be on the fourteenth, the twenty-first, the thirtieth, or even a more lengthened period. In order to explain more fully my observations, I will relate two cases which have recently occurred in this

neighbourhood, showing the result of opposite modes of treatment.

Two sisters were attacked at the same time with fever, which after some days assumed the character of typhus. The elder sister, who whilst in health was of a most tranquil and placid disposition, passed through the disease subsisting on milk, arrowroot, and weak broth, toast-water, and Japan green tea. In this case, I repeatedly tried the effect of wine, and as often had reason to regret the attempt to keep up the powers of my patient in this way. The younger sister, who was a most excitable person whilst in health, had six ounces of port wine allowed her daily, with marked benefit. She had, moreover, morphine at night, which the elder sister could not take. Nitric acid with the extract of conium was the principal treatment with the elder; whilst infusion of bark and hydrochloric acid, with extract of conium, were given to the younger patient. Both patients recovered after thirty days of fever. I have great confidence in the beneficial effects of good extract of conium in fever. Its sedative powers appear to keep the nerves of the stomach in a quiescent state, and prepare it to receive and digest the nourishment which is administered.

I will now say a few words on the sedative treatment in mania.

A lady, who had been engaged in some family disputes, in which she evinced signs of aberration of mind, was on her journey to her home on the top of a coach. All at once she insisted to be set down on a barren moor, where she was exposed to the heat of a vertical sun for some hours. She was afterwards brought home by some friend, who happened to pass that way in his carriage. She was then in a state of mania, which became violent. After some days, it was arranged that she should be sent to the asylum on the following morning, as it was considered the only step that could be taken under existing circumstances. I was consulted in the matter, and at once resolved to try the efficacy of morphine in large and repeated doses, watching its effects most carefully, administering grain doses with my own hands every eight hours. This plan was followed for six days, with the best results; after which time I gradually lessened the dose. The improvement was gradual from the first. At the end of a month, she was perfectly restored to her reason. She then went to the seaside, and has remained perfectly well ever since. It is more than a year since she was first attacked.

In conclusion, I must say a few words respecting the beautiful and salubrious spot where, by the particular request of some of our members, we are assembled this day to hold our annual meeting, instead of at Bideford, where it was first intended to be held.

Doubtless there are great advantages to be derived from the sea-breezes, wafted without interruption across the broad Atlantic, partaking in their course, as they are known to do, of a goodly portion of ozone, which is found to be the means of restoring health to enfeebled constitutions, and to be highly beneficial in certain cases of affection of the lungs. Then, again, we have two miles of solid sands and several hundred acres of level turf within our far famed "Pebble Ridge", on which invalids can take their pastimes either in a carriage or on horseback. Such advantages as these are said not to be met with again in England. Our accomplished associate, Dr. Radclyffe Hall of Torquay, has named Torquay "The Queen of the South". May we not claim for this spot to be "The Queen of the North"? And, if so, I am sure she will heartily welcome her fair cousin and her stately court, whenever they require a more exhilarating and bracing atmosphere.