

where the skin was scratched or otherwise broken, or even where exposed to the irritation of the clothing long wet with salt water. I should say that up to Batavia and beyond we had been using Loch Katrine water, supplemented by a small supply from Plymouth, both being of unquestionable quality. Any probable intention of taking in a further supply from the port of Batavia, where we coaled, was at my suggestion entirely abandoned by the captain, especially as he had there been apprised, by telegram, of the occurrence of cholera on the *Dorunda* some time after leaving the port at which we then were; and, in fact, a message had been sent prohibiting the entrance of vessels proceeding to Queensland ports within the harbour of Batavia in consequence of that circumstance, but it arrived too late to admit of the captain's compliance with the order. We were then under the necessity of condensing the sea-water, a task which the chief engineer readily undertook.

In view of the epidemic character of the symptoms of colic and abdominal cramps, one of the engineers suggested the possibility of the zinc plates which were fixed in the "donkey boiler"—whence our supply of water for drinking purposes was condensed—in order to prevent the corrosion of the iron as being the cause—an idea, I may say, not favourably received by some others. I thought it advisable, however, to procure a sample of the water in order to test it for the presence of zinc, which I accordingly did. I may say that the weather was hot and wet, and the quantity of water consumed, especially by the poor firemen in their arduous toil, in the shape of meal and water, was unusually large. In the process of galvanising, or coating iron with zinc, the latter metal not only acts as a varnish or protective, but becomes oxidised, as you are aware, before the iron is so acted upon, even though its surface be exposed. L. L'Hôte, in "Comptes Rendus," says: "As to the inquiry if zinc free from any foreign metal decomposes water either on boiling or in presence of dilute sulphuric acid, experiment proves that such is not the case. Pure zinc heated with distilled water in a flask, so arranged as to receive the gases over mercury, gives off no hydrogen on prolonged boiling, nor is it attacked by dilute sulphuric acid. The presence of iron in the proportion of 3 to 5 in 100,000 enables it to decompose water. Traces of arsenic and antimony have the same effect."

On my return home, and having leisure to prosecute the inquiry, I find, on evaporating a portion of the water in question and testing it, there is decided evidence of the presence of zinc. Hence it will, I think, appear evident that the presence of zinc plates in iron boilers used for condensing water for human consumption is fraught with danger to the health, if not, indeed, to the life, of those consuming the water for any length of time. Although in the case of the ship in question, intended for the coasting trade of Australia, it is probable that condensed water will not often be used, and although unhappily the quality of the water obtainable at some of the ports on that coast is not of the best, and will not suffer from boiling before being drunk, yet the subject, embracing also the very general use of galvanised iron under similar circumstances, I think you will be prepared to admit, is well worthy the attention of those concerned, and, as in cases similar to the above, of investigation by the Board of Trade.

I am, Sir, yours faithfully,

JOHN WARD, M.D.,

Sutton Coldfield, Birmingham,
April 12th, 1886.

Ex-Medical Officer of Health.

LAW AND LUNACY.

To the Editor of THE LANCET.

SIR,—As a forcible illustration of one of the social phases of the deleterious consequences arising from the recent prosecutions of medical practitioners for giving certificates of insanity, I venture to forward to you a few extracts from a letter my wife received from a lady friend this morning. They appear to me to be so brimful of materials for reflection, alike to doctors, lawyers, and the general public, that they ought to be made known. I give the extracts in the lady's own words, for although the language she employs is simply that of a friendly letter, it seems to me to be quite telling enough, and will possibly be all the more impressive by reason of its very simplicity. I suppress, of course, the name of the writer, and as the extracts from her letters are

forwarded to you without her knowledge, I hold myself responsible for them. They are as follows:—

"My husband's illness from overwork has taken a very serious turn, after apparent complete restoration. He has some form of brain mischief which makes him believe that he is very rich, and he has been buying everything he fancies for a year past, including land, and entering into terrible expense connected with railway-making. He will take no advice, and I have been consulting doctors in vain for months, hoping to get help to protect him from those preying upon him. But, alas! from the state of the law and the fears medical men are in of the consequences, it has been all in vain, though they admit the need. All his property is involved now; our home is sold up, and our pretty things have all been ruthlessly squandered by a forced sale. I see no end of my troubles, for Mr. — considers himself still as rich as ever, and is so angry at me for doubting it that I hardly dare go to him. At present I have no home to go to, except to one of his country farm-houses, where he had furnished a part for ourselves."

These extracts are, I think, sufficient to show how recent actions against alienists is beginning to react against the general public, and when viewed in association with Lord Shaftesbury's sad suicide prove that the present state of the Lunacy Law as regards the responsibilities of medical men in signing certificates requires immediate emendation.¹ For while Lord Shaftesbury destroyed his own life, here, in the above-mentioned case, the gentleman destroys the means not only of supporting his life, but that of his family. Every medical man knows how often a few months of well-regulated restraint will suffice to cure an attack of monomania, and how that the individual after recovery may enjoy many long years of comfort and happiness. He equally knows that it is exceedingly rare for any of these cases, except during the incubation period, to possess either sufficient mental power or moral strength to voluntarily place himself under restraint, while the medical treatment of monomania involves quite enough of anxiety without having the additional terrors of the law superadded to it. If Lord Shaftesbury's and the above-described case be not examples of true insanity, my notions of mental disease and moral responsibility, I fear, require important revision.

I am, Sir, faithfully yours,

Harley-street, Cavendish-square.

GEORGE HARLEY, M.D.

THE PERILS OF SUBCUTANEOUS MEDICATION.

To the Editor of THE LANCET.

SIR,—Having just heard from Dehra-Dûn to the effect that my old friend and quondam companion in some Himalayan rambles, Frederick Wilson, Esq., better known as "Shikari" Wilson, died at Mussoorie in July, 1883, of what would appear to be an over-dose of morphia, subcutaneously injected, I wish to take this opportunity of calling attention to the subject, and of intimating at the same time that two such cases of this description have occurred within the sphere of my own individual cognisance. I am precluded by personal or professional reasons from entering into any details respecting these, and I merely alluded to them here to enable me to offer it as my opinion—an opinion which, as you, I think, know, is based on something better than books—that this form of poisonous drug administration is fraught with the greatest danger in that most weakening or worrying malady—frequently recurring or chronic, suppressed, or systemic—gout.

As regards the case of my poor friend, and making all due allowance for the feelings or the exaggeration of a son, the circumstances under which he succumbed are briefly as follows:—"He had just returned (says my informant) from Gungostre—the source of the Ganges—suffering, as usual, from his old enemy the gout. As the pain became intense, — was called in, and he carelessly injected an overdose of morphia, for my poor father never recovered from the deep sleep it produced, but died about three hours after the injection." And had the Emperor Charles V. or the great Earl of Chatham, who were both undoubtedly victims to this disease, been similarly treated during any of their paroxysms, the history of the Spanish Armada or of the French fleet

¹ This necessity has already been represented in a letter signed "General Practitioner," published in THE LANCET of March 6th last.—Ed. L.

under Conflans might have had to be written in characters different from those of Mottley and Carlyle. "A Yorkshireman from Wakefield, as Colonel Markham described him in his 'Shooting in the Himalayas' (p. 19), fortune in his early life led him to India (in the 11th Light Dragoons); his impaired health sent him to Landour, whence he took a journey in the hills. Returned to England, he was unable to forget the life he led in the Himalayas, which had for him an irresistible charm. Not being overburdened with money, he worked his passage out to Calcutta, and walked straight up to Meerut, a distance of 900 miles, in thirty days. From thence to the hills was an easy trip, where he has been a resident for several years," and where he recently died, as we have just seen. Similar testimony is borne to his capacity and courage, his courtesy and skill, by Mr. Dunlop, B.S.C., in his "Hunting in the Himalayas," as well as by the editor (said to be Mr. Hume) of that pleasant book, "A Summer Tour in the Himalayas," *passim*; and his name and fame were household words in all "shikari" (hunting or shooting) circles in that district. He was, in a word, one of those God Almighty's gentlemen of whom my great namesake used to say that "they carried the title deeds of their estates in the crowns of their hats." But Frederick Wilson carried something more than these in this receptacle. He carried brains and ability of a high order. He also carried in it such energy and honesty, pluck and perseverance, as no discouragement could suppress or opposition subdue, and the consequence is that he has left behind him a name that will not soon die out in those regions, and a heritage and an independence such as any family might be proud of. He showed me many kindnesses, for which I desire to offer, with your permission, these my best thanks, and to offer at the same time, if you will kindly so allow, this little memorial of our friendship as an R.I.P. for his tomb.

I am, Sir, your obedient servant,

Auriol-road, W., March 21st, 1886.

WM. CURRAN.

"THROMBOSIS OF THE CORONARY ARTERY DURING ETHER ANÆSTHESIA."

To the Editor of THE LANCET.

SIR,—The case related by Dr. Moxon in your impression of the 17th inst. is full of the greatest interest, not only to the physician and pathologist, but also to those who are in the habit of administering anæsthetics. The vivid picture with which we have been furnished can leave no doubt in our minds as to the proximate or *secondary* cause of death; but, with regard to the remote or *primary* cause, I would deferentially submit that the evidence is not sufficiently conclusive. The charge brought by Dr. Moxon against the anæsthetic agent is a grave one, and it is in the interests of this agent that I would ask to be permitted to say a few words.

Without wishing to doubt the accuracy of Dr. Moxon's conclusions with reference to the age of the thrombus he describes, I think he will admit that the chronic arteritis met with in the coronary artery might at any time have eventuated in thrombosis. It must be remembered that ether is frequently administered to patients whose arteries are atheromatous to an extreme degree, without any subsequent evidence of thrombosis having taken place during the administration. Surely, cerebral thrombosis and its consequences would be more often observed after ether anæsthesia if Dr. Moxon's explanation of his case be a true one. We should, indeed, expect such untoward results to follow chloroform narcosis in old people with comparative frequency were Dr. Moxon's theories correct; for the low arterial tension often observed under chloroform and the degenerated vascular system so common in old age would be conditions eminently suited for the formation of thrombi in the vessels. I would therefore ask: Might not the thrombosis have had an origin totally independent of the etherisation?

I venture to think that all our energies should be devoted towards restricting the use of chloroform as an anæsthetic, and towards insisting upon the advantages of ether for most cases in which general and prolonged anæsthesia is required. I therefore trust that Dr. Moxon will excuse my calling into question the explanations he has brought forward in reference to his interesting and instructive case.

I am, Sir, yours obediently,

Somerset-street, W., April 19th, 1886.

FREDERIC HEWITT.

DEATH FROM ETHER.

To the Editor of THE LANCET.

SIR,—In the very interesting account given by Dr. Moxon in your last issue of a case of death from thrombosis of a diseased coronary artery, the ultimate cause of death is attributed to the inhalation of ether for a small surgical operation three weeks previously. The sole grounds on which this statement is made appear to be that the thrombus seemed to be about three weeks old. One naturally wishes for further corroboration of this statement, as thrombosis is not generally considered to be caused by such agency. I have notes of every case of death which could in any way be attributed to the use of ether published during the past ten years, and I have before me as well a report by a committee of physicians appointed by the Boston (U.S.) Society for Medical Improvement, published in 1861, wherein are notes of forty-one cases in which death occurred within a week or two of ether inhalation. In none can I find any note of abnormal blood-clotting, and in many cases there is mention made of the great fluidity of the blood. Among the cases reported by the American committee are no less than three in which ether inhaled by unqualified persons for sport seems to have produced fatal meningitis within a few days. Cases of this kind are reported both from Rouen and Philadelphia.

A pathologist of Dr. Moxon's experience is hardly likely to have made so serious a charge against ether as an anæsthetic without due reason. May I ask him, through your columns, to refer me to any other cases where thrombosis seems to have been caused through the agency of an anæsthetic?

I am, Sir, yours truly,

Leeds, April 20th, 1886.

ERNEST H. JACOB, M.D.

SANITARY LEGISLATION.

To the Editor of THE LANCET.

SIR,—Every year the need of further sanitary legislation is becoming more and more pressing, and, in the interest alike of the public health and a minimum of interference with individual freedom of action in sanitary matters, it behoves the members of those professions which are charged with the care of man's physical being and the construction of his dwelling-places to take the subject into serious consideration, in order not only that the necessary legislation may not be too long delayed, but that it may be shaped and directed by those having the greatest knowledge of the questions involved. Two of the chief things to be aimed at in future legislation are: (1) To simplify and bring into one measure the regulations relating to the powers and responsibilities of public authorities; and (2) to increase the responsibility of owners and occupiers in respect of the sanitary condition of their own buildings.

As a contribution towards the solution of the second point I send you the annexed draft Bill, which is now under consideration by a special committee appointed by the Executive Council of the Sanitary Assurance Association.

I am, Sir, yours truly,

MARK H. JUDGE, A.R.I.B.A.

Park-place Villas, W., April 19th, 1886.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

SUNDERLAND CHILDREN'S HOSPITAL.

THE annual meeting of the Sunderland Children's Hospital was held last week when the twenty-second report was read, showing that during the past year the number of out-patients treated was 967, and the total number of consultations given was 3006, and 122 children had been treated as in-patients. The total number of patients treated during the year, including in- and out-patients, was 1227. It is stated in the newspaper report that there had been no death among the patients during the year, but probably this is a mistake, as it is not likely that over 1000 sick children could come under hospital observation without some fatality.

"A PETRIFIED GIANT."

Under the above heading a paragraph appears in our local papers, giving a very circumstantial account of some petri-