

carefully prepared editorial contribution on Malta Fever; and the medical service of the Italian army (translation).

Lieutenant-Colonel H. H. R. Charles, I.M.S., surgeon to the Prince of Wales in India, has, on the completion of the Prince's tour in the Indian Empire, been invested by His Royal Highness on behalf of His Majesty the King with a Knight Commandership of the Royal Victorian Order.

Correspondence.

"Audi alteram partem."

THE DISTRIBUTION OF MALTA FEVER (WITH AN ACCOUNT OF A CASE OF A MIXED INFECTION OF ENTERIC AND MALTA FEVERS).

To the Editors of THE LANCET.

SIRS,—Having been on leave of absence it was only on my return to Malta last week that my attention was drawn to a letter in THE LANCET of Feb. 10th written by Dr. Llewellyn Phillips under the above heading. I should feel obliged if you will allow me to make a few observations with reference to his remarks on the case of mixed infection. Dr. Phillips says: "The case is of interest as being one of a double infection with the microbes of enteric and Malta fevers and is, I believe, the first to be put on record with a definite proof by serum diagnosis." I would refer Dr. Phillips to the *Journal of the Royal Army Medical Corps* for March, 1905, in which I published a paper entitled "A Case of Double and Simultaneous Infection by the Organisms of Enteric and of Malta Fever." This paper was read before the Mediterranean branch of the British Medical Association at Malta on Jan. 2nd, 1905, and the agenda of this meeting appeared in the *British Medical Journal* a few weeks later.

My case occurred in November, 1904, and died after being in hospital nine days. Death was caused by perforation and at the post-mortem examination all the typical lesions of enteric fever were found. The presence of the Malta fever infection was found only after cultures had been made from the spleen, from which both bacillus typhosus and micrococcus Melitensis were isolated. There was no agglutinative reaction to micrococcus Melitensis on the one day on which the blood was examined. With your permission I shall quote the first and the concluding paragraphs of my paper:—

It has long been discussed whether it is possible to have a simultaneous infection by bacillus typhosus and by micrococcus Melitensis. Undoubted cases have occurred where one disease has followed so closely on the other as to make one suspect that the infection was simultaneous; in these cases the blood serum reacts first to one disease and then to the other. In other cases the blood serum is said to react to both diseases from the first, but, so far as I am aware, there is no record of this being confirmed by post-mortem examination. I am now able to place on record a case in which both organisms were obtained from the spleen after death. I do not apologise for bringing this case to notice, because apart from the fact that I believe it to be the first time that the two organisms have been isolated from the same spleen I consider that it is extremely important to recognise that the two diseases may exist together, especially in view of the treatment. In such cases the serum diagnosis is not absolutely to be relied on, and it is quite possible to imagine a case treated as Malta fever in which the enteric may have been masked until it evidences itself by the fatal results of a too liberal diet.

It is not uncommon for us to get cases of mixed infection in Malta and two of the cases which came under my own care last year illustrate two aspects of the question.

CASE 1.—A private in the Rifle Brigade, admitted on May 30th, 1905, on the seventh day of illness, passed through a typical attack of enteric fever; his temperature became normal on the twenty-ninth day. The blood serum reacted completely to enteric fever in a dilution of 1 in 50 and not at all to Malta fever in a dilution of 1 in 10. He had slight rises of temperature on the thirty-seventh and thirty-eighth days and on the forty-first and forty-second days his temperature reached 102° F. The serum reaction remained the same. On the fifty-second day the temperature rose suddenly to 103° but immediately fell again; on the fifty-sixth and fifty-seventh days it began a steady rise and on the sixty-first day reached 105°. The serum now gave the following reaction: immediate and complete to Malta fever and incomplete to enteric fever in a dilution of 1 in 10; time limit, a quarter of an hour. The fever

continued till the seventy-third day and another relapse started on the eighty-second day, continuing in an intermittent way until the 106th day, when he was invalided home.

CASE 2.—A corporal in the Rifle Brigade was under treatment for Malta fever from Sept. 29th, 1904, to March 17th, 1905. For the last month he had suffered from orchitis—a common sequel. On March 27th he was readmitted to hospital with fever (104° F.) and nothing in his symptoms to give me reason to suppose that it was not an ordinary relapse of Malta fever. On examining his blood, however, I found that the reaction to Malta fever had disappeared and that a slight reaction to enteric fever was present. I examined the blood several times and got the same result on each occasion. I even drew off five cubic centimetres from the median basilic vein for the purposes of culture but found it sterile. Some doubtful spots appeared about the eighth day after admission and slight diarrhoea on the tenth, eleventh, and twelfth days. The temperature became normal on the twenty-ninth day and remained there until his discharge from hospital.

It will therefore readily be understood that for medical officers in Malta (knowing that these cases constantly occur) the question of mixed infection is very important. At times and for the purposes of treatment a confident diagnosis of either disease alone or of a mixture of the two becomes of critical importance. The subject is of intense interest both to bacteriologists and to clinicians and could be enlarged on very greatly. This must be my excuse for this long letter.

I am, Sirs, yours faithfully,

J. CRAWFORD KENNEDY,

Captain, R.A.M.C.; Member of the Mediterranean
Fever Commission.
Malta, March 12th, 1906.

FATAL BLOOD POISONING FOLLOWING A WOUND BY THE PRIMULA OBCONICA.

To the Editors of THE LANCET.

SIRS,—The patient, a woman aged 29 years, was recovering from an attack of influenza when she accidentally scratched her nose whilst smelling at a plant of the variety referred to. The nose rapidly swelled up, became a deep plum colour, with many points of suppuration similar in appearance to a carbuncle. Under an anæsthetic the diseased portions of the nose were scraped away. Edema of both eyelids followed, the same destructive process taking place in the soft tissues, a diffuse cellulitis of the forehead and scalp then supervened, and despite incisions continued to spread. No discharge came from the wounds. The patient died at the end of the week with symptoms of pneumonia. At the post-mortem examination acute congestion of both lungs with many foci of suppuration were found. Cultivations discovered the streptococci and staphylococci present. This is the third case of acute inflammation of the skin and subcutaneous tissues I have met with after infection by the primula obconica. Two died and one recovered after a very prolonged illness. These infections were all on the face. I learn that a species of eczema of the hands often affects gardeners when tending this plant. These facts hardly encourage one to add the primula obconica to one's floral possessions.

I am, Sirs, yours faithfully,

Leeds, March 17th, 1906.

W. H. BROWN.

THE INCUBATION OF MUMPS AND ITS ORCHITIS.

To the Editors of THE LANCET.

SIRS,—It is seldom that, even to medical officers of schools, so unique an opportunity is afforded as that which occurred to me at the commencement of this term at Rugby, of recording the incubation period of a disease involving a large number of instances due to a single source of infection.

The school reassembled on Jan. 18th, every boy having to be in his boarding-house before 10 P.M. In a certain boarding-house, numbering 57 boys, one named G— arrived at 7.30 P.M. After the usual friendly greetings incidental to such occasions he retired to bed at 9.45 P.M. in a dormitory with nine others. On the morning of Jan. 19th at 8.45 I saw him, diagnosed mumps, and removed him at once to the sanatorium. He was associated with many of his school-fellows from 7.30 P.M. to 9.45 P.M.,

and with a few in his dormitory from 9.45 P.M. to 7.30 A.M. After this he was separated absolutely from his school-fellows in the sanatorium throughout his illness.

Now let us analyse the damage he occasioned during those few hours. I should state, however, *in limine*, that the type of mumps was severe; and although every boy was kept in bed for eight clear days (never even putting foot to the floor for any purpose) more cases of orchitis occurred than I have ever witnessed when such care is observed. A large epidemic—66 cases—ensued but none of them was of the same severity of type. I only give the period of incubation from the one source of infection, for after this it was difficult to trace it. It is usually asserted that it is in the dormitories, where eight or nine hours are passed, that the largest number are infected. Yet the originator of this group of cases slept in a dormitory with nine school fellows and only infected two of them (marked with an *), four of them having previously suffered from the malady, while three escaped.

The Period of Incubation of a Group of Cases of Mumps and its Orchitis.

Name.	Date of attack of mumps.	Day from infection.	Date of commencement of orchitis.	Day of illness.
G.	Jan. 18th, the originator of this group of cases.			
1. H.	Feb. 3rd.	Sixteenth.	Feb. 6th.	Third.
2. P.	" "	"	" 11th.	Eighth.
3. S.*	" "	"	" 13th.	Tenth.
4. D.	" "	"	—	—
5. T.	" "	"	Feb. 10th.	Seventh.
6. J.*	" 4th.	Seventeenth.	—	—
7. P.	" "	"	—	—
8. B.	" "	"	—	—
9 C.	" "	"	Feb. 11th.	Seventh.
10 F.	" "	"	—	—
11 R. T.	" "	"	—	—
12 P.	" "	"	Feb. 12th.	Eighth.
13 M.	" "	"	—	—
14 B.	" 5th.	Eighteenth.	—	—
15 C.	" "	"	—	—
16 W.	" "	"	—	—
17 B.	" "	"	—	—
18 F.	" "	"	Feb. 13th.	Eighth.
19 C.	" "	"	—	—
20 W.	" 6th.	Nineteenth.	Feb. 14th.	Eighth.
21 G.	" "	"	—	—
22 M.	" "	"	Feb. 13th.	Seventh.
23 M.	" 10th.	Twenty-third.	—	—

Thus 37·5 per cent. of these cases suffered from orchitis—a larger number than had ever previously occurred in my experience—and 77·77 per cent. on the seventh to the eighth day. I am, Sirs, yours faithfully,
March 16th, 1906 CLEMENT DUKES, M.D. Lond.

ETHYL CHLORIDE AS A GENERAL ANÆSTHETIC.

To the Editors of THE LANCET.

SIRS,—Having read various articles recently in THE LANCET regarding the use of ethyl chloride as a general anæsthetic, and having myself had the opportunity of frequently administering it, I feel justified in craving the courtesy of your space in order to state my results and to give a few opinions regarding the use of the gas. I may say that I am the more inclined to do this on account of the dread in which I have noticed a great many medical men, both at hospital and in practice, hold ethyl chloride as a general anæsthetic.

During recent months I have administered chloride of ethyl several hundreds of times and I have never had the least trouble during or after its administration. These results I am inclined to attribute more, in spite of the strong opinion to the contrary, to the safety of the gas than to any particular skill on my part in administering it. I have given it to people of both sexes and of all ages and have found it as satisfactory in young children and old persons as in

middle-aged men and women. A large percentage of patients to whom I have administered the gas have been placed under the anæsthetic for the extraction of teeth and I have found the rapidity of the production of anæsthesia a great advantage when compared with that of nitrous oxide gas. The length of the anæsthesia, too, is convenient, the simplicity of administration and the far smaller expense all giving it a decided advantage over nitrous oxide. For the operation of the removal of tonsils and adenoids I have found it invaluable, the length of the anæsthesia being amply sufficient for any experienced operator to remove both tonsils and thoroughly to scrape the posterior pharyngeal wall with a Gottstein's curette. In these cases I have been discussing ethyl chloride as an anæsthetic for a short period. I have never gone in for the routine practice of giving it for prolonged anæsthesia by the open method, but with the ordinary mask I have kept a patient under for over 20 minutes with no inconvenience. I cannot say I have found the after-effects of chloride of ethyl at all distressing and vomiting has occurred only in a large minority of cases and then never of a serious character.

And now one word as to the method I have found the most beneficial for administering the gas. I squirt into the bag of the ordinary ethyl chloride inhaler supplied by the instrument makers from 2·5 to 5 cubic centimetres of ethyl chloride from one of Messrs. Duncan and Flockhart's flasks—2·5 cubic centimetres for children, 3 cubic centimetres for women, and up to 5 cubic centimetres for men. I then place the bag over the face until anæsthesia is produced. This nearly always is accomplished within a minute, the usual period being three-quarters of a minute, although it varies from four or five breaths to the full minute. The disadvantage of this method is the sudden exhibition of the full amount of the gas to the patient, with a consequent choking sensation, and fighting for breath during the first few seconds. The alternative is to squirt into the bag, or through wire gauze into the face-piece, small quantities, such as one cubic centimetre, from time to time, but as one cannot prevent the entrance of air, however little, the anæsthesia is delayed, and I have noticed in some cases it lasts for a shorter period. I have also found ethyl chloride of great value in the commencement of anæsthesia under ether, introducing it into the bag by means of tipping up a small glass tube containing five cubic centimetres of the gas and allowing the ethyl chloride to run through a rubber tube directly into the bag of a Clover's inhaler.

I feel that if more medical men who have had experience of administering chloride of ethyl would publish their results a great deal would be done to remove what I consider the prejudice of many of our profession to the gas. I consider it should at least be given an extensive trial.

I am, Sirs, yours faithfully,
Blackheath, S.E., March 13th, 1906. HAROLD MOWAT.

THE PROGNOSIS AND TREATMENT OF CROUPOUS PNEUMONIA.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 3rd, p. 589, I read with great interest Dr. C. H. Cattle's paper on Pneumonia. He mentions a case of pneumonia in a man, aged 73 years, with a temperature chart showing rigors, which he very rightly describes as being extremely rare in this disease. The patient quoted previously suffered from prostatic trouble and during the attack of pneumonia was catheterised. I should like to ask Dr. Cattle what was the condition of the urine? Unless this excretion was normal I should be inclined to suggest that the state of the bladder and urine was more likely to be the cause of the rigors rather than the pneumonia.

I am, Sirs, yours faithfully,
St. Mary Cray, Kent, March 17th, 1906. J. M. BENNION.

THE STERILISATION OF MILK.

To the Editors of THE LANCET.

SIRS,—Quite recently, and with very great interest, I have read the detailed and scientific report of Professor R. Tanner Hewlett on the Budde process for sterilising milk which appeared in your issue of Jan. 27th, 1906, p. 209. The Budde process seems to me to be a very genuine one and great credit is due to the discoverer, yet clearly it leaves much to be desired compared with such a process as that known as the