

post-dysenteric peripheral neuritis. One is at once reminded of the almost universal initial, and occasionally concomitant, symptom, of diarrhoea or dysentery. But if the dropsical symptoms are merely sequelæ, it is a reasonable hypothesis, supported by the analogy of diphtheria, to suppose that not all cases of diarrhoea will be followed by this symptom which may also show all degrees of severity not in proportion to the severity of the casual disease. The further one pushes one's investigations, the more cases of trivial leg œdemas causing little or no inconvenience come to light.

"If my surmise is correct, the appearance of cases of dropsy ought to be preceded by a considerable number of cases of diarrhoeas and dysenteries in the affected community.

"With the object of throwing some light upon this hypothesis, I have examined the number of cases of diarrhoea and dysentery under treatment in the out-patient department of Faridpur dispensary, in relation to the total number of cases treated during November, December, January, and March, for the last six years and show the result in curves plotted out upon a diagram. It will be seen that the curves for 1905-1906, 1907-1908 and 1908-1909 show a general tendency to fall during December and January, to be maintained about the same level or to rise in February. 1906-1907 was an abnormal year, in which diarrhoeas and dysenteries were maintained at a high figure throughout the four months in Faridpur.

"The curve for 1909-1910 shows a variation from the preceding curves such as would be shown if to the average per month of the preceding periods, an unusual outbreak of diarrhoeas and dysenteries had added its number to the figure for December. From this it will be seen that there are some grounds for supposing that there was an abnormal number of cases of diarrhoea and dysentery during December, which was the month preceding the period in which the cases of dropsy were noticed.

"From the foregoing considerations, I think it probable that the disorder is an infectious one, perhaps transmitted from one to another through food, contaminated through handling by the infectious person, in the same manner as food is rendered infective by an enteric carrier; or that it may possibly be contagious like the specific fevers of Europe; that its infectious period is short and that the mechanism of the disease may be that the dropsy is due to the absorption of a toxin, the site of whose production is the intestine as the diarrhoeic and dysenteric symptoms suggest."

It will be seen that the reports from which we have made the above extracts are too good to be buried in a belated Supplement to an Annual Report.

## Correspondence.

### COWDUNG AND DOMESTIC HYGIENE.

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—In the Annotation column of the *Lancet* of the 30th September last (page 958), and in the column on Notes short comments, etc., of the same Journal for the 21st October last (page 1,175), there are some remarks on cowdung floor (washing) and plague prevention. Dr. Saldanha who writes in the latter column makes very strange statements indeed in favour of his "Cowdung Washing and Plague Prevention," and lays particular stress upon the point that in order to keep (a cowdung floor) clean and habitable, it requires to be frequently cowdung washed." He seems to be a very zealous advocate of this mode of treating the house floors, and goes so far to state that the Punjab and North-Western Provinces remain plague-stricken, for they neglect to carry out this useful "domestic hygiene."

The arguments he sets forth in favour of his advocacy are rather strange and not so easily believable. Firstly, he states that in this cowdung treatment of floors there is a

slight chemical action upon the organisms which may be present on the floors; and secondly, there is mechanical effect to entangle in the liquid (mucilage) dung and thus destroy any fleas or "flea eggs." Though the second reasoning appears to be more reasonable, I don't know how the first can be carried out, for I am not aware of cowdung having such a bactericidal chemical action. Probably some chemical action may be setting in when the cowdung gets decomposed owing to its remaining in that condition for a longer period, but it is very wrong therefore to attribute to it any bactericidal value.

Dr. Saldanha seems to make the most of his cowdung affair. He does agree with the fact that the cowdung often contains the tubercle bacilli, and therefore states that "sunlight and free ventilation which are necessary for drying a cowdunged room also devitalise any tubercle bacilli that may be present in the cowdung used in washing the room." While preparing the cowdung for the wash, the housewife has to handle freely this objectionable filth. To this process she is subjected to nearly once or twice daily. Will not the tubercle bacilli which are mostly present in the cowdung affect her in any way after so much handling?

Dr. J. A. Turner, the Health Officer of the Bombay Municipality, who carried out some valuable investigations last year, as to the prevalence of tuberculosis in the cattle, states that "out of two hundred and eight samples of milk examined, thirty contained an acid fast bacilli resembling the tubercle bacilli, or 14.4 per cent.;" further on in the summary of his investigations he states, "(3) that a possible source of infection (of tuberculosis) is the faces of the infected cattle due to the intimate connection there is between the labouring classes and the cattle and the enormous use made of cowdung in the houses and surroundings." The figures I have given show that the mortality from tuberculosis is higher in India than in England; that the milk and sputa (road-side) examined show that there is risk of disseminating the tubercle bacillus while the presence of the tubercle bacillus in the faces of the infected animals is a greater danger in India than in other countries. The generality of the public here have no chance of distinguishing between the infected and non-infected cattle, so they use the dung of all the cattle. Thus they stand a greater chance of catching the infection. This is the case of one particular bacillus often found in the cowdung, but as the cow is one of the highly developed vertebrates, its excreta must contain an abundant infectious flora of Prof. Metchnikoff, to frequently or freely handle, which must be a constant source of menace to general good health.

There are two ways in which the cowdung is used for the Indian house floors: (1) as a thick paste, (2) as a watery solution. In either case it is mixed with some other substance usually the yellow or the black earth (pilli or kali mati), and the mucilaginous character of the cowdung to which Dr. Saldanha refers is chiefly due to this addition. In fact, it is mainly added to give the cowdung a mucilaginous character, otherwise the paste will not keep even and lasting. There is no mucilage in cowdung itself as Dr. Saldanha believes, except that it may at times be accompanied with mucus from the large intestines. The first system of cowdunging is carried out at longer intervals, sometimes months and even years, and as it is carried out in a thick layer, it remains more porous, and after drying cracks appear in the whole floor. These cracks have been frequently observed by me to harbour a number of fleas, so also the porous nature of the floor, I believe, must offer a good resting-place for many other harmful organisms.

The second process of using the cowdung in a liquid mixture to which I think Dr. Saldanha gives the name of "cowdung washing" is generally carried out almost daily in our kitchens and sometimes in our out-houses. The cooking hearth and the places where dishes are served for the meals are the places often frequented with this plan of treatment. The most peculiar thing about this process is that the lady of the house will be very particular to preserve the same rag for her every-day use. So also the patented earthen pot. Will Dr. Saldanha reflect what amount of danger the housewife daily faces by her frequent and free use of the rag and the earthen pot, which are merely the filth incarnate?

Every way considered, I am also "of the opinion that as a plague preventive this use of cowdung had nothing to commend it," but on the other hand, it is positively dangerous to make use of this filth as a household article, and as such every step should be taken to discontinue its use. I fully agree with the statement that "cleanliness of the persons and of house interiors with admission of sunlight and fresh air will do more to prevent plague in Hindu huts than the spreading of cowdung on the floors."

I have been thinking for a very long time how best to discontinue the use of cowdung by suggesting an equally cheap substitute for it. The treatment of our floors with a weak solution of pesterine or phenyle or such other cheap antiseptic will be the best thing, but I do not think it will be utilized by or be within the means of all. The

construction of the house floors will also be another difficult question to deal with, in this connection. The even cement flooring will be the best thing needed, but I do not think it will be within the means of all here. I would suggest a mixture of coal tar and concrete. The tar should be heated till it assumes a uniform liquid consistence and then the concrete should be added to it. The whole mass, when it assumes a semi-solid consistence, should be evenly spread on the floor. This will no doubt be the best substitute for the old cowering floor; but will this be the cheapest? Will any of your readers suggest a cheaper substitute for it, so also a cheap and effective disinfectant for washing the floors so that men of all grades may be able to make a constant use of them?

Yours, etc.,  
H. B. PANDIT,  
Sub-Asst. Surgeon.

BARODA.

### "THE GANJA HABIT."

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—I am enclosing a reprint of an article written in the *Therapeutic Gazette* (November 1910), and I am anxious to obtain what facts I can regarding the composition of Haschisch and what is known about the habit produced by the use of *Cannabis Indica* in a pure state. Any information or references that you can give me will be greatly appreciated.

Yours, etc.,  
M. V. BALL.

[Will some of our readers oblige DR. BALL?—ED., I. M. G.]

### "THE VALUE OF POLYVALENT SERUM."

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—The following account showing the efficacy and success of the Serum method of treatment, is,—by kind permission of Captain Grant, R.A.M.C., Commanding Station Hospital, Bhamo,—is sent for favour of publication. The patient, Captain Hodgkinson Lack, I.M.S., took ill on 14th February 1912, complaining of general malaise, sorethroat and fever. He gave a previous history of irritable throat caused by excessive smoking, and he had operated on a gangrenous foot the day before. On 15th February 1912, Captain Grant was called in and found the patient with high fever and very bad throat, showing follicular tonsillitis on left side with a suspicious patch, greyish-yellow in colour, between the anterior and posterior pillars of the fauces, extending up towards the soft palate. He was given a good purge, Sod. Salicyl. mixture, and gargles of Pot. Chlor. He had a bad night, experiencing considerable pain and difficulty in swallowing and his general condition was heavy and lethargic, due probably to absorption of toxins. Swabs from throat were taken and examined microscopically, showing presence of large numbers of Streptococci, but no Diphtheria bacilli. On the 16th, the inflammation in the throat had extended to the right side, involving the uvula. On the left side a swelling appeared anterior to anterior pillars of the fauces which seemed to contain pus. Incision proved negative. Both sides were scarified and 2,000 units of antidiphtheric serum given subcutaneously; locally fomentations and gargles were continued. On 17th February 1912, the patient appeared worse, he had passed another restless night, the throat looked angrier, and the submaxillary glands were swollen. The surrounding tissues were also hard and tense, pointing to a spreading cellulitis, and he could with difficulty open his mouth, and speech was only possible by painful effort. As his general condition also appeared worse, Captain Grant decided to bring him into hospital and incise freely under chloroform. This was done and swabs from throat taken and sent to the Divisional Laboratory, Maymyo, with the same result as that on the previous occasion; the incision did not apparently give any relief. He had another very restless night. Deglutition was accomplished only after great difficulty and the jaw appeared fixed, allowing the mouth to be opened to a very small extent.

The next day, 19th February 1912, his condition was, if anything, worse. Polyvalent serum which had been wired for on 17th February 1912, now most opportunely arrived, thanks to the kind and prompt action of Major Dee, I.M.S., Civil Surgeon, Mandalay. The patient was given 10 c.c. at noon, followed by another 10 c.c. that same evening. The effect was most marked. The temperature dropped to 99° the next morning, and there was a remarkable abatement of the severity of the condition. His throat felt a lot easier, the pain and swelling of the glands decreased, and he was able to take liquid nourishment with greater ease and comfort. He now made an uneventful recovery and left hospital two days later. This case and the complete success of the Polyvalent serum is best appreciated by a glance at the temperature. There can be no doubt that the Septic

throat was caused by the bacilli inhaled from the gangrenous foot during the operation, and further, these bacilli must have been of a most virulent type. The severity of the attack may be gauged from the fact that Phlebitis developed during convalescence, clearly the sequela of the septic infection? And although the disease had made great head way, and had a clear start, still the serum was able to catch it up and finally neutralise it. It would not be too sweeping therefore to conclude that all cases requiring serum treatment, should receive it, no matter in what stage, or how desperate the patient's condition may be. It is a drawback, of course, that one should not be able to determine, definitely, beforehand, the particular strain of Polyvalent required for any given septic infection. But then there is always the chance that one may strike the proper strain of the serum required, as exemplified in the foregoing case.

Yours faithfully,  
C. W. DUNLOP,  
Asst. Surgeon.

STATION HOSPITAL,

BHAMO,

18-3-12.

## THERAPEUTIC NOTICES.

MESSRS. MACKENZIE LYALL & Co., Calcutta, the Agents for MELLIN'S FOOD Co. for India, Ltd., send us a copy in Bengali of the firm's useful pamphlet on *Care of Infants in India*.

We referred in our Editorial columns lately to the most recent views of the value of DIGALEN and in B. M. J. (13th January) Dr. Moore remarked as follows:—

"Equivalent amounts of 'Digalen' solution produce as distinct and marked slowing as the tincture, and on listening to the heart the increased force is obvious in the short, sharp systole. It has the further advantage that it can be given intravenously without pain: the absence of alcohol is here a highly desirable factor, and the safe dose is at least treble that of the tincture."

Standardized preparation of DIGALEN are sold by the Hoffmann-La-Roche Chemical Works Ltd., London, and by agents in India.

VISITORS to London, this summer will be sure to find their way to the ANGLO-LATIN EXHIBITION to be held at Shepherds Bush at the Great White City.

BOVRIL, LD., announce a record year and as Sir J. Crichton Browne has said:

"Bovril rests its claim on the firm basis of exact chemical experiment, referring of course to Prof. Thompson's well-known experiments on the food value of Bovril."

A NEW system of electric deposition of metals has been invented by Messrs. P. & Q. Marino. The process is controlled by the Harvey Electro-Chemical Co., Ltd., London. By the new process practically every substance can be electroplated. For instance, the outside of a salad bowl or an earthen teapot can be coated with silver to an unlimited thickness while the inside will still be undisguised earthenware. The new process also admits of many alloys for the plating. For instance, silver and nickel can be successfully combined, silver and tin, silver and cadmium. Aluminium can also be plated with any electrically depositable metal, as also can wood, paper, iron, steel, etc. The Company will be glad to forward prospectuses to any who are interested; their address is Norfolk House, Laurence Pountney Hill, London, E. C.

MESSRS. KNOLL & Co. send us a reprint of an article of the value of BROMURAL in hospital practice for the *Klin. Therapeut Wochenschr* 41 of 1911. The article is by Dr. Goeschel, who has used it with very satisfactory results.

MESSRS. BATTLE & Co., the makers of the well-known preparation BROMIDIA, have been placed in a singular position owing to the peculiar business morality of Indian Chemists. On the label of every bottle of Bromidia is published the formula—consequently the preparation is widely imitated and when dispensed by the physician, spurious "Bromidia" is issued by some druggists. Messrs. Battle & Co. point out that "Bromidia" is a standardized preparation and if dispensed in the form issued from their laboratories can be relied on by the physician for the specific purpose prescribed. The use of a substitute not only renders the effect of the prescription uncertain, but may be fraught with peril to the patient. It is suggested that physicians should always write the word "Battle" when prescribing "Bromidia" to ensure the genuine drug being used.