

shock by keeping the intestines contracted and thus saving them from being handled, and by stimulating even a badly fed heart.

KEDARNATH DAS, M.D.

PUBLIC HEALTH.

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889. (*Public Health*).—The Medical Officer of Health of the Bucklow R. D. C. has proposed certain amendments to this Act and, with a view to formulating a scheme for an amending bill to be brought before Parliament, the Council have circulated the proposed amendments to other authorities for opinion. Amongst the remedies for the faults are the following:—

1. That one medical certificate only is necessary.

2. Seeing that one notification brings the infected premises to the notice of the Medical Officer of Health, subsequent cases, occurring in one house and during one illness, might be paid for at a reduced rate (at present the fee for every case in private practice is half-a-crown).

3. Erysipelas to be excluded from the list of notifiable diseases; or retained only in special cases, as (1) after child-birth, (2) after injuries, or (3) where dangerous to life.

4. The duty should rest upon the medical practitioner alone; being extended to the head of the family only in those cases where no medical attendant is called in.

Note.—The head of the family who subsequently calls in a medical attendant should not thereby be relieved of the responsibility for the period of illness preceding such action.

5. According to present sections of the Act Notifications are to be made upon "becoming aware" of existence of infectious diseases.

Note.—Any unscrupulous person prepared to assert that he had "not been aware" would have an unassailable defence to any prosecution, and could therefore set the Act at defiance in absolute safety.

Remedy.—"Proof of innocence shall rest with the party charged" must be introduced in some shape or other. The onus of proving "knowledge" should be removed from the Complaint Council, and proof of *bonâ-fide* "ignorance" should instead be required from the defendant.

6. Fine (forty shillings) quite insufficient to prevent deliberate concealment of cases, where strong private reasons exist for such a course, e.g., laundries, bakeries, dairies, etc., whose trade would be affected by publicity.

Remedy.—Amount of penalty to be increased or nature varied.

7. That the Act should be made universally applicable, and that the fee paid covers and includes all necessary postages, should be so stated to avoid possibility of dispute.

"THE PUBLIC HEALTH ACT, 1875," SECTION 126.
Penalties or Exposure.

8. This requires extending, to cover the cases of infection carried about by "third persons." At present there appears to be no power under any Act to deal with a midwife spreading

puerperal fever; or with casual visitors to scarlet fever cases carrying away the seeds of the disease for communication to fresh individuals.

Notification is absolutely necessary to secure the prompt "isolation" of infectious diseases, and any Municipal Act which does not provide for the immediate notification of, and has not severe penal sections for, applying against responsible persons, who fail to notify all such diseases, cannot be regarded as complete.

ENTERIC FEVER AT KESSINGLAND, SUFFOLK. (DR. R. BRUCE LOW'S report to the Local Government Board).—In this report the connection between want of sewerage and typhoid fever is well established. Shallow wells, privy pits adjacent thereto, and the importation of the poison four years previously supplied all the conditions necessary.

One well, about 15 feet deep had, within a radius of 20 yards of it, no less than 10 privy pits; one, indeed, was only 8 yards distant, another 10 yards, and a third only 13 yards. The garden lands surrounding the well had been heavily manured from time to time with human excrement collected from privies in the "infected area."

Given the virus of typhoid fever, what would the result be in some of our large Indian cities, where the distance of the privies from the wells can often be measured in feet? It would be difficult to beat the conditions which exist in some planting districts which we know.

Dr. J. F. J. Sykes, Medical Officer of Health for St. Pancras, says, with regard to the difficulty in dealing with overcrowding—

"1. That it is frequently only possible to prove overcrowding when the occupants are actually in bed, or retiring, or rising.

"2. That overcrowding is like a globule of quicksilver, which, when the finger is placed upon it, disappears to reappear elsewhere, but the place where overcrowding appears is infinitely the more difficult to find.

We venture to state from personal experience that if Dr. Sykes' lot as a Health Officer had been cast in some Oriental cities, it would have necessitated his remaining in the room of the occupants all night to find when retiring or rising took place, or to prevent the globules disappearing before the finger could possibly reach them.

DIPHTHERIA COMMUNICATED BY A CAT. (*Public Health*).—After discussing the question of the spread of diphtheria by domestic animals generally, and by cats in particular, Dr. J. S. Tew cites a case in a girl, 7½ years old, in which it appears highly probable that the disease was contracted from a cat. The sequence of events elicited by inquiries was somewhat as follows:—

January 4th and 5th.—Cat decidedly ill. It was nursed and *kissed* on both days by the child.

January 6th.—The cat died and was buried.

January 12th and 13th.—Child turned ill.

January 16th.—Diphtheria diagnosed clinically and bacteriologically, and case notified.

January 17th.—Child isolated.

January 18th.—Instructions issued to have cat exhumed.

January 19th.—*Post-mortem* made, serum tube inoculated with mucus from above epiglottis and incubated at 37° C., etc. A nearly pure growth of bacilli, undistinguishable from the Klebs-Löffler, obtained.

Results confirmed by Mr. A. G. R. Foulerton, F.R.C.S.

Dr. Tew produces evidence, from earlier recorded cases, to show that cats suffer from diphtheria, although in some respects the clinical features differ from those in the human subject and remarks:—

“Cats, which, in the daytime, are the usually intimate associates of young children, are frequently turned out at night, when they not only meet other cats from infected houses on the tiles, but also prowl about refuse heaps and such like foul places, where they smell over and eat infected scraps of food, returning to close contact with the children in the morning.”

OBSERVATIONS ON THE USE OF ANTITOXIN IN THE TREATMENT OF DIPHTHERIA. (BY DR. WALKER DOWNIE. *The Glasgow Medical Journal*).—In his opening remarks, in a communication on the above subject, Dr. Downie made reference to the serious complications which followed the use of Koch's tuberculin, and the adverse bias with which he began the employment of diphtheria antitoxin, of the efficacy of which when employed aright and its infinitesimal evil effects of which he is now convinced. In order to appreciate the effects of the treatment, the symptoms of the disease were first discussed amongst which were mentioned the absence of knee-jerk, of which in the majority of cases there is early abolition which is considered of far greater importance than albumen in the urine. The essentials of the successful use of the antitoxin according to Dr. Downie are: (1) Fresh serum; (2) early administration; (3) full dose; (4) repeated injection.

In an average case seen in the earlier stages 5 c. c., equal to 500 units of immunisation, is the dose to be recommended for first injection, while double that quantity may be given when symptoms—toxæmia or laryngeal obstruction—are severe. The injection may be repeated at the end of 24 hours when marked improvement does not follow.

DIAGNOSIS OF DIPHTHERIA. (BY G. SIMS WOODHEAD, M.D. *Public Health*).—According to this authority the Löffler bacillus may or may not be found. If found, the case, however mild, may become toxic, and can communicate

the disease to other individuals in a virulent degree; if absent, the danger to the individual is less, as its infection and toxic symptoms are rare. The great majority of the bacilli are on the surface. To detect them some of the mucus should be smeared on a cover glass, and stained with Löffler's blue, or by Gram's method. The bacilli are 3-4 μ length, straight or slightly curved, clubbed at one or both ends, and show one or more transverse bands of a lighter shade. In pure cultures they may be wedge-shaped and in pairs, but they are always in groups or heaps, never forming chains. Löffler's culture medium consists of 3 parts of blood serum, and 1 part of peptone broth, with a little soda, etc., in which the bacilli grow rapidly and appear almost alone.

Negative results of bacteriological examination are not conclusive, and therefore, the clinical features of the case must be carefully observed.

C. BANKS, M.D., D.P.H.

Vital Statistics & Sanitation.

A SHORT REPORT ON THE PLAGUE IN BOMBAY AND THE MEASURES TAKEN TO SUPPRESS IT.

BY SURGN.-MAJ. F. J. DYSON AND SURGN.-CAPT. J. T. CALVERT, I.M.S.

(Continued from page 398).

Sites for hospitals were selected in all the districts; where possible suitable buildings were secured for plague hospitals; at other places temporary structures were erected. Segregation camps were formed at convenient spots, wheeled ambulances of an approved pattern were purchased and stationed with attendants at sectional and central offices, plague hospitals and segregation camps. Hospital staffs were appointed to the various hospitals, mortuaries built, light dead carts constructed, and definite arrangements made for the speedy removal of all dead bodies to the burial ground or burning ghât. Overcrowded burial grounds were closed, whilst in those remaining open a large number of graves were kept ready dug for immediate use. At these burial grounds and burning ghâts Hospital Assistants and clerks were stationed, who entered full particulars concerning the deceased, his place of residence, cause of death, etc. A store godown was procured, a selected officer placed in charge of it, and arrangements made with contractors, chemists, etc., for the supply of disinfectant medicines, cots, blankets and hospital sundries.

Search parties for the purpose of house-to-house inspection were organised and disinfecting and lime-washing gangs formed. Rules for the guidance of District Medical Officers, of search parties, of hospital attendants, etc., were printed and distributed.

An inspecting staff was appointed to examine all persons coming into or going out of Bombay by the causeways, and arrangements were subsequently made for the examination of railway passengers and passengers coming into Bombay by sea. In consultation with the leading members of the various religious communities, and under certain conditions and restrictions, buildings were approved of as private hospitals for the members of those communities. The offices of the Plague Committee were connected by telephone with the central office of each District Medical Officer and with each Government Plague Hospital. Arrangements were made to receive at a certain hour each day reports from all plague hospitals, etc., showing number of new patients, number of deaths, number of discharges from District Medical Officers, information regarding number of cases discovered by search parties, number of houses disinfected, lime-washed, etc.; from the railways, of houses leaving and entering Bombay, and the same number of persons leaving and entering Bombay, and the same information from the Collector of Customs regarding the sea traffic. From the principal papers cuttings of any information bearing on the plague were made and put up before the Committee.

31. *Districts*.—As previously stated, the island and city were divided into ten districts. These districts again were made up of sections and sub-divisions. In charge of the whole was the District Medical Officer—a Commissioned Officer of the Indian Medical Service—to assist him he had a central office with the necessary