Current Topics.

ANTITYPHOID INOCULATION.

Dr. A. E. Wright, whose name is so closely associated with the spread of inoculation against typhoid fever, has published a small volume * on the subject, which is not only an exposition of the principles of the method, but is also a summary of the practical results achieved by the application of those principles.

The volume deals with the general principles of immunisation, the application of these principles to the particular problem of producing immunity to typhoid fever, with the technique and clinical effects of antityphoid inoculation, and with the practical results.

We do not here propose to follow our author in the technical chapters on immunisation and technique but only to notice the practical results achieved.

It will be remembered that for some reasons not known to the public the Advisory Board created by Mr. Brodrick took upon themselves to suspend the practice of antityphoid inoculation some 18 months ago, and since then it has been announced that a Committee has been appointed to examine and report on the whole subject, and of this Committee Dr. A. E. Wright is a member.

Now as to the results. In the first place Dr. Wright makes clear that the inoculations from which the statistical results are obtained were inoculations "undertaken for the most part in a very hurried manner under very difficult external conditions, with imperfectly standardised vaccines, and particularly in the case of the South African inoculations by agents who were absolutely without scientific training." Further the results recorded are those obtained for the most part by a single large dose of the "vaccine."

If, continues Dr. Wright, inoculations conducted under these disadvantages have (as is here claimed) furnished clear evidence of the utility of the process, and have already effected a great saving in life, it is perhaps not oversanguine to look forward to the achievement of a very much greater protective effect when provision shall have been made for carrying on the inoculation in a manner more in accordance with the demands of a scientific system. Dr. Wright then goes on to show that except in cases where the numbers were too few to justify any accurate deduction, *the incidence of typhoid fever was diminished by at least one-half in the inoculated*, and in certain cases a much greater reduction was achieved, in some cases amounting to a 28-fold reduction.

Superadded to the diminished incidence of the disease there is a *striking diminution of case mortality*. This is shown by a large array of recorded figures, and in the aggregate the proportion of deaths to cases among the inoculated has been rather less than half that among the uninoculated. This is surely an achievement not to be despised? The figures are 1,758 inoculated patients furnished 142 or 8 per cent. deaths whereas the case death-rate among 10,980 uninoculated patients was 16·6 per cent.

There is no conclusive evidence as to the duration of the protection which is conferred by antityphoid inoculation, but the evidence, so far as it goes, points to the persistence of the protective effect during the second year after inoculation.

Since the above was written we have seen the report of the Advisory Board for the medical services which, though dated 25th September 1902, only now sees the light (*Journal, R. A. M. C.*, February 1905). It sums up adversely on the procedure and considers Dr. Wright's statistics as not sufficiently extensive or exact to permit of any conclusions being drawn or to the utility of Wright's antityphoid inoculations.

THE BILHARZIA PARASITE IN INDIA.

The report of the Sanitary Commissioner with the Government of India for the year 1903 calls attention to a new cause for invaliding, affecting the British soldier in India. This is the Bilharzia hæmatobia or Schistosoma hæmatobium, as it is otherwise called. According to Table LIII. of the above Report there were 318 admissions to hospital from this disease among British soldiers in 1903, an average daily sick of 41, 1 death, and no less than 158 men were invalided on this account. It is noted that in 134 out of the 158 cases of invaliding the infection was contracted in South Africa, and is therefore one of the legacies left by the war.

It is worth inquiring into the geographical distribution of this parasite. As far as India has been concerned the only previous cases which have been recognised in India are, as far as we can find out, those referred to by Lt.-Col. Hatch, I.M.S., of Bombay. We believe that Col. Hatch's cases were all among Indian pilgrims returned from Mecca where they must have contracted the affection, as Arabia and Mesopotamia are known centres of the affection.

The Sanitary Commissioner's report gives no cases from the Native Army or from among the prisoners in India.

It is well known that this trematode, discovered by Bilharz at Cairo in 1851, is very widely spread in Egypt, as the extracts which we published in our February number (p. 67) show. It is common almost all over the African Continent, in America one clear indigenous case has been reported from the State of Illinois, and

* A short treatise on Antityphoid Inoculation, by A. E. Wright, M.D. (Dub.). Price 3*s.* 6*d.* net. Westminster: A. Constable & Co., Ld., 1904.

more recently Sir P. Manson reported a case in an English resident of the West Indies, who had never been in any of the countries of the endemic prevalence of the parasite. In Asia it has been but rarely recognised, except in Arabia, the Euphrates valley and the imported Bombay cases. It has, however, been found as a rare case in Mauritius and in Syria and in Penang. Within the last few months,* however, a similar parasite, the *Schistosoma Cattoi*, has been found *post-mortem* in a Chinaman from the province of Fokien, who had just come from China to Singapur in an emigrant ship, and as Scheube long ago conjectured, it is not impossible that the prevalence of urinary calculi among the Chinese at Canton may, possibly, be connected with this parasite, as the prevalence of some forms of stone in Egypt is certainly connected with the trematode of Bilharz.

The natural history of these trematodes is far from being thoroughly known, it is also a moot point as to how the parasite enters the blood. The soldiers in Natal believe that it gets into the bladder during bathing, but it is equally probable that it gets into the human system by means of drinking water.

It is curious that this parasite is not a recognised inhabitant of India. Other trematodes are found in India, *e.g.*, Distoma crassum (see *I. M. G.*, July 1904, p. 260), Distoma conjunctum (found by Dr. McConnell in Calcutta), the amphistomum hominis, found in India only, by Lewis, McConnell, and Giles, and in an East Indian immigrant in British Guiana by Dr. Law.

It is worth while directing the attention of observers to a further search for these trematodes.

RATS AND PLAGUE. THE EXPERIENCE OF HONGKONG.

ONE of the most important contributions to the literature of plague during the past year has been the report by Dr. W. Hunter on epidemic and epizootic plague in Hongkong. In 1902 Dr. Hunter commenced a systematic examination of rats for plague and in two years bacteriologically examined no less than 218,000 rats. Charts were prepared showing the number of human cases of plague and the number of rats found infected with plague. The Sanitary Commissioner with the Government of India draws the following conclusions from these charts: (1) the curves for rat plague and for human plague are remarkably similar; (2) at a definite period in the year the rat-plague curve rises, followed in about a fortnight afterwards by a similar rise in the human-plague curve; (3) the point of maximum intensity of human plague is about a fortnight later than that of rat plague; (4) the rat curve declines and is followed by a similar fall in the human plague curve; (5) the human epidemic becomes extinct, but the rat epidemic does not; it remains low for a week, then recrudesces and remains at a low but constant level till the following year, when it suddenly shoots upwards followed, in a short time, by the yearly epidemic in man; (6) rat plague is therefore epizootic continuously, but human plague is only epidemic during the acute exacerbations of the epizootic.

There is therefore an acute and a chronic form of rat plague, and this is confirmed by Klein's observations that there are two types of the bacillus pestis, a virulent type bred in the human subject, and a less virulent type bred in the rat. Dr. Hunter believes that the mode of entry of the virus is by the alimentary canal and that flies and even cockroaches help to carry the infection. Hunter is not inclined to follow the view that fleas or other suctorial insects can convey the infection. Be this as it may, the most obvious conclusion is that to prevent plague war must be waged against rats, and it remains to be seen whether the sad experience of the last few years has taught the peoples of India to overcome their prejudice and apathy in a matter which above all demands their willing co-operation.

* *B. M. J.*, Jan. 7th, p. 11.

LIEUTENANT-COLONEL BANNERMAN, M.D., I.M.S., ON THE PLAGUE PROPHYLACTIC.

LIEUTENANT-COLONEL BANNERMAN, I.M.S., the Director of the Plague Research Laboratory, Bombay, has republished a very valuable and interesting lecture on the "Plague Prophylactic." It is too long even to give a synopsis of it here, but we quote the following conclusions:—

"Having now, as I hope, made myself sufficiently clear regarding the harmlessness and efficacy of the prophylactic, the questions arise:—

How can any one refuse to accept it?

What is the secret of the resistance to inoculation?

The first point to notice in trying to answer these questions is that the number of medical men practically acquainted with inoculation, who do not believe in its protective power, is so small as to be in effect non-existent.

The second point appears to be the existence of a large amount of ignorance as to the effects produced, due mainly to the hindrance to the spread of knowledge imposed by the want of education among the masses of this country.

The third point may be found in the existence of a body of cranks—of which however India cannot claim the exclusive possession—who appear incapable of weighing evidence, and who cannot distinguish between small evils and great ones. To them a sore arm and a little fever seems as important an evil as plague itself.

Fourthly perhaps the vague rumours of evils such as leprosy and loss of vigour reported to follow on inoculation may deter some, in spite of the fact that a careful Governmental enquiry conducted in the Southern Mahratta country failed to find any grounds in reality for such allegations.

But, gentlemen, when you review seriously the situation, can you avoid the conclusion that no measure yet adopted,—except evacuation which is not applicable to a large city like Bombay—has had any demonstrable effect on plague.

The people who pin their faith to disinfection cannot produce any figures to be compared to those on the wall behind me. They have to content themselves with

comparing one year's epidemic with its predecessors; than which I know of nothing more fallacious.

These remarks however do not apply to disinfection of clothing, which has some evidence in its favour. But that, as Kipling says, 'is another story.'

What I want to impress upon you is that sanitation has up to now been powerless to arrest plague even when presided over by so able a Health Officer as Dr. Turner. He cannot accomplish the impossible. Neither can a body like the Bombay Improvement Trust do much to stamp out plague for many years to come.

If any of my audience are alive 50 years hence they may see the fruits of the labours of Dr. Turner and the Improvement Trust when people have been taught the elements of hygiene and have proper houses to live in; but immediate results are in my opinion not to be looked for. If these opinions are correct, the only thing we can do *now* is to adopt inoculation on a large scale.

It is upon the leaders of the Native community that the responsibility rests.

It is impossible for Government or its officers to influence the people to any extent without their help; but with their help I feel sure we could grapple with plague, confident that the results of our labours would be the reduction of the next epidemic to small dimensions easily dealt with by Dr. Turner and his able assistants.

I need not say that anything I can do by means of giving lectures and demonstrations I am willing and glad to do, but the stimulus must come from you, the leaders of the Native community."

THE INSTRUCTION OF SANITARY INSPECTORS.

The following is the syllabus for the lectures of instruction drawn up by Lt.-Col. King, the Sanitary Commissioner, Madras, for the teaching of certified sanitary inspectors. We reproduce it here as it seems a scheme worthy of imitation in other provinces.

General.

The use of drawing instruments. The use of scales. The reading of plans and sections. The calculation of gradients.

The measurement of areas and volumes, including the calculation of small quantities of earthwork, brickwork, masonry, etc. Estimating for minor and temporary works.

Buildings.

The description of soils and strata best suited for the erection of buildings in respect to stability and healthiness of the dwellings erected thereon. The necessity for foundation, their proper depth, etc.

Knowledge of the various building materials, such as brick, stone, lime, surki, asphalte, paints, etc. Their quality and the possible influence of the atmosphere on them. Their suitability for use in various parts of a building. To distinguish between good and bad brick, timber, lime, cement, etc.

The methods of ventilation applicable to Indian conditions.

Main details of the construction of permanent and semi-permanent hospital wards as gained from a study of plans.

The area and cubic space required in ordinary and contagious wards.

The details of design of latrines as gathered from a study of plans—permanent and temporary.

Details of nightsoil depôts and a knowledge of method of trenching, covering, etc.

Water-supply.

The inspection of sources of supply and determination by inspection as to their suitability for dietetic purposes.

The proper construction of wells to prevent the inlet of surface-polluted water

The calculation of the capacity of a well and the average supply of water likely to be obtained from it.

Methods of filtering and purifying small quantities of water or of otherwise rendering it safe for domestic use.

The method of drawing samples of water for chemical examination from water taps, tanks and streams.

Simple methods of calculating the discharge of small channels.

The various methods of raising water used in India and the construction of the ordinary lift and force pumps.

The use and construction of small cisterns and tanks for the storage of water.

The quantity of water necessary per diem per head for a town population and for horses and other animals.

The method of driving tube wells, their use, and the position in which suitable.

Drainage.

The materials used in drainage works.

The use of drainage pipes, glazed and unglazed, brick drains, syphon traps, cesspools, septic tank, etc.

The various methods of house and street drainage.

Knowledge of methods for the rough determination of the discharging capacity of an open drain, channel, closed pipe and sewer.

The proper gradients for drains of varying sizes.

The various methods of pipe-jointing in closed drainage and sub-soil drainage.

The variation in sub-soil water-level and its effect on health.

The methods of excluding sub-soil water from areas and spaces below ground level.

The methods of flushing and cleaning drains and drain testing.

Disposal of Sewage, Etc.

Methods of sewage purification. The action of the septic tanks, bacterial and other filters, and of land, etc.

The relation of the septic tank to the old cesspool.

Simple plant for domestic sewage disposal.

The formation of small collecting tanks and areas for sewage filtration.

The proper crops to grow under sewage irrigation.

The sub-soil drainage of sewage farms when necessary and when not.

The maximum area which can be irrigated by any quantity of sewage.

The maximum amount of sewage which can be put in an area to ensure a maximum return in relation to temperature and climate.

STANDARDS OF PURITY FOR SEWAGE EFFLUENTS.

The following are the conclusions arrived at by Professor Dunbar of Hamburgh on this vexed question :—

Concluding, I should like to state that, according to my opinion, we can judge the putrescibility of effluents better by the percentage of reductions effected by biological plants than by standards based on absolute figures.

The absolute figures obtained, even by the best methods of determining putrescible matter in sewage, do not in all cases give definite indications as to the putrescibility of any given sample. Effluents of purification works may present a most satisfactory character, and yet, under certain circumstances, contain as large, or even larger, quantities of either organic carbon, organic nitrogen, and albuminoid ammonia; as high an oxygen absorption, and loss of ignition as other samples of crude sewage which are in a high degree liable to undergo putrefaction. We should therefore give up the attempt to find a standard of general applicability based on absolute figures. A far safer judgment as to the

putrescibility of effluents can be obtained by calculating the percentage of purification effected. Simple methods, like Kubel's oxygen absorption test, give results entirely sufficient for wants of practice, if used only for calculating the percentage of reduction.

The analytical determinations spoken of are not needed in all cases. The requirement that all effluents should be absolutely non-putrescible needs only to be made where the river presents most unfavourable conditions, or where the river districts are densely populated. In many cases it will be sufficient to require only that all coarser suspended matter be removed from the sewage. In other instances all suspended matter, including finer particles, should be removed as efficiently as possible.

In other cases, again, the authorities will have to insist not only on the removal of the entire suspended matter, but also on a reduction of between 40 and 50 per cent. of oxygen absorbed by the dissolved impurities, the determination being made after filtering the samples; and there will certainly be such cases, too, where it must be stipulated that the effluents are limpid and entirely non-putrescible.

It would be desirable that leading men in Britain and Germany, where the great questions of rivers pollution and sewage purification are at present being discussed more than ever before, should come to an understanding to carry out the examination of sewage on the same lines. In such case the large amount of analytical work carried out in both countries every day would lead to comparable results, and progress might be accelerated by mutual labour and interchange of ideas.—(*Sanitary Record*, 26th January 1905.)

THE PURIFICATION OF WATER BY COPPER SULPHATE.

IN continuation of our remarks on this subject in our last issue (p. 102) we quote below a note on the subject by Dr. C. Harrington, the Professor of Hygiene at Harvard.

We would like to see a series of experiments made with copper *chloride* or sulphate as a means of further purifying the effluents from septic tanks. A much stronger solution could be used, and it is possible that after treatment by this salt it would be possible to discharge the effluents direct into rivers, and so solve the great difficulty of the disposal of the septic tank effluents.*

"During the few months that have elapsed since the publication of the results of experiments conducted by Moore and Kellerman (*United States Department of Agriculture, Bureau of Plant Industry, Bulletin* 64) on the use of extremely dilute solutions of copper sulphate as an algacide in reservoirs and ponds overgrown with algæ and for destroying typhoid and cholera infection, many practical applications of the method have been made in various parts of the country, with results varying from complete success (against algæ) to utter failure. The authors gave warning, however, that each body of water should be studied separately as a distinct problem, and invited consultation in every case of intention to attempt treatment. Objection has been made in various quarters to the use of even so minute an amount as one part of copper sulphate in 5,000,000 of water, on account of possible ill-effects therefrom, although the daily ingestion of small amounts of that salt is held, rightly or wrongly, by most authorities to be free from danger to health. But it is asserted that within a very short time all traces of copper disappear from the solution. However this may be with some waters, it is not true with all, for it is the experience of the present writer and of probably many others that evidence of its presence may still be found some weeks after the treatment. It is said that the authorities of Elmira, N. Y., added not 1 part in 5,000,000 but 1 in 7,00,000, or about seven times as much, and that a litre of the water, taken thirty hours after treatment and concentrated by evaporation to a single cubic centimetre, yielded not the slightest trace of copper, it having been precipitated after performing its office. In this instance, it may be noted, there occurred complete destruction of the algæ and a diminution of more than 90 per cent. in the number of bacteria. In some cases, objection has been raised that, although the algæ are destroyed, the turbidity persists; but generally the killing of the algæ is followed by their rapid disintegration, with disappearance of turbidity. In other cases a more serious objection is that while certain species are destroyed far more easily than others, and although overgrowth by these may prevent the latter from undergoing extensive multiplication, the disappearance of the easily-destroyed species may remove the obstacles to and be followed by an overgrowth of an equally objectionable but more hardy species. With regard to the bactericidal power of colloidal solutions of copper, there are already many remonstrances that the original statements appear not to be justified. Among those who report against placing any reliance upon this form of treatment of public water supplies for the destruction of typhoid infection is Professor John H Long, of Northwestern University, who made an investigation of the subject in behalf of the Illinois State Board of Health. In a communication from Dr. J. A. Egan, the Secretary of that Board (*Journal of the American Medical Association*, October 15, 1904, p. 1157), Professor Long is quoted as saying: 'While in sterilized water in contact with copper the death-rate of typhoid bacilli is high, their persistence for two or three days, and the possible persistence for longer periods in larger amounts of water, render the method impracticable for use in rendering a suspicious water safe for household use.' Attention is called to the fact that typhoid bacilli disappear from ordinary water in from one to ten days without treatment, and that, therefore, the disappearance of the bacilli forty-eight hours after seeding in a copper vessel may be due not only to the action of the copper, but to the natural destruction of the bacilli in water."—(*A. J. of Med. Sci.*, January 1905.)

* Since above was written we have received the paper by Lieut. Christophers, I.M.S., which we publish in this issue.—*Ed., I. M. G.*

THE MODERN OPERATION FOR CANCER OF THE BREAST.

UNDER the above heading Mr. Jackson Clarke of the N.-W. London Hospital describes the chief features of the modern operation, based on the work of Stiles, Watson-Cheyne, Halstead and others. The rules are:—

"(1) Very free incisions passing elliptically around the breast and prolonged above and outwards over the anterior axillary fold and below and inwards to the sternum, with secondary prolongations (*a*) towards the clavicle above and (*b*) outwards over the chest wall.

(2) A wide dissection of the skin by freely undermining these flaps in order to expose the deep fascia to the clavicle above, the sternum internally, to near the margin of the ribs below, and the posterior fold of the axilla externally. In dissecting up the skin as much of the fat as is compatible with preserving the vitality of the flaps is left adhering to the deep fascia, which is then detached at the limits indicated above and dissected up towards the borders of the sternal portion of the pectoralis major.

(3) The clavicular and the sternal parts of the pectoralis major are separated as far as their union near

their humeral insertion, where the sternal part is cut through and turned inwards with the fasciæ attached to it, until the insertion of the pectoralis minor into the coracoid process is seen. The former is detached and turned down with the fasciæ attached to it as far as its thoracic attachment, where it is cut through. The sternal portion of the pectoralis major is similarly cut through. In this way the breast and fasciæ and the muscles are all separated, except where they are continued into the axilla by lymphatics and fat.

(4) The axilla is thus fully exposed and the axillary fat and glands are detached from the clavicle downwards, the axillary vein being taken as a guide, and if any glands are adherent to it a portion of it is removed. The subscapular and long thoracic vessels are similarly freed from fat and glands and the whole mass removed, leaving the axilla clear of its fat and glandular contents. After tying any blood-vessels that may require it the extensive wound is then closed, a drainage tube being passed into the axilla through a separate cut through the posterior axillary fold."

The attention of those interested in the question of the degree of prevalence of typhoid fever among natives of India is directed to the paragraph on pages 45, 46 of the Report of the Sanitary Commissioner with the Government of India for 1903.

As we believe that all efforts to elucidate the etiology of this formidable disease of the British soldier in India will be useless unless the question of the exact degree of its prevalence among natives is ascertained, we are of opinion that a special inquiry should be instituted and a special committee of expert clinicians and bacteriologists appointed to determine this matter.

The following table shows the progressive decrease in the number of admissions per mille from cholera from the first historic epidemic of 1817 or from the earliest statistical records, in the British and in the Native Armies in India:—

	Yrs. 1818-57	Yrs. 1857-67	Yrs. 1870-74	Yrs. 1875-79	Yrs. 1880-84	Yrs. 1885-89	Yrs. 1890-94	Yrs. 1895-00	Yrs. '01-'03
British Army	20 to 33 per mille.	15	4·1	5·4	3·3	2·2	2·7	1·5	·8
Native Army	8·3 (1831 to 1853)	5 (1861-70)	2	2·8	1·1	1·7	2·6	1·3	·6

We are glad to see that the Sanitary Commissioner (1903, Report, p. 11) calls attention to the very misleading conclusions which have resulted from a too-confiding trust in the serum re-action of Malta fever in India.

As the first announcements of a prevalence of this fever in India were made in this Journal, we take the opportunity of stating now that it is exceedingly doubtful now if any real *indigenous* cases of Malta fever have ever been met with in India. The clinical grounds for the diagnosis have ever been slender, and a reliance in this case on the bacteriologists has only led us quite astray.

It is satisfactory to find that there has been a real and progressive decrease in the amount of venereal disease in the British Army in India of recent years. In 1895, there was a maximum prevalence amounting to no less than 522 per mille, this has now fallen to 281 per mille in 1902, and 247 in 1903. Some of this decrease is discounted by the fact that nowadays many of the men are treated as out-patients, but they are said to be more thoroughly treated, and the Sanitary Commissioner believes that there has been a real decrease in the prevalence of these diseases among soldiers.

We are glad to hear that the plans and estimates are ready for the reconstruction of the General Hospital, Rangoon. The reconstruction will be on an extensive scale, and the new hospital will be provided with all the latest electric and sanitary appliances, refrigerating apparatus, steam cooking apparatus, steam laundry. The main building is estimated to cost over 12½ lakhs. Good houses will be provided for a Superintendent, the Resident Medical Officer, and the rest of the staff. The total cost is estimated at 21½ lakhs.

It is a satisfactory and probably remarkable fact that, notwithstanding the very great prevalence of plague among the civil population in India of recent years, there have been very few cases in either the British or Native Army or among the prison population in India.

In the year 1903 there were but 12 cases in the British Army, 69,000 strong; only 180 cases in the Native Army, 122,000 strong, and only 34 cases among 101,000 prisoners in all the prisons of India.

In the year 1903 there was a marked decrease in the number of cases of cerebro-spinal fever among Native troops and among prisoners, only 6 cases in the Native Army, and 34 cases among prisoners.

Dr. Juan Guiteras of Cuba has published in Spanish and in English a small monograph on "Chappa," a mutilating acropathy, which he considers identical with the affection called "Chappa" and described by Dr. E. H. Read of Lagos, W. C. of Africa in 1901.

We are afraid the medical profession in Calcutta does not realise what a thaumaturge they have among them in the person of a certain

kaviraj. We are informed in a letter from a Mahomedan gentleman that this kaviraj on being called in to see a maharaja—"ascertained the diseases of his patient with all the particulars relating to the then state of the body, the inclination for diet, &c., by merely feeling the pulse and unassisted by any previous information."

Truly, as our correspondent says, "such a kaviraj is rare in these days." We are afraid that we cannot agree with our correspondent that this event should "deepen our reverence for the Science." (*Sic.*)

WE note that in the Sanitary Commissioners' Report (p. 97) Capt. J. P. James, I.M.S., holds that there is a distinct form of malarial cachexia with enlargement of the spleen, which is true malaria, and not due to infection by the Leishman-Donovan bodies, as is so often the cause of similar cases in Madras, Eastern Bengal, and Assam.

IN the year 1903 in the British and Native Armies and among prisoners there were only 2 cases returned as "appendicitis." The explanation probably lies in the fact that there were 56 cases in the British Army, 54 cases in the Native Army and 17 cases in the prisons returned under the heading "typhlitis."

A MEDICAL contemporary has suggested the name "Revivalenza" for the mental effects of the revival excitement in Wales and the West of England, which is so curiously suggestive of some of the "religious" manias of the middle ages.

IN an interesting chapter on Plague Epidemiology (*J. of Hygiene*, vol. 5, No. 1, p. 54.) Mr. E. H. Hankin collects together the evidence which connects the outbreak of plague in Bombay in August 1896 with the visits of large number of medicants who come down every twelfth year from Garhwal to the great festival at Nassik.

Reviews.

"Lectures on Diseases of Children."—By ROBERT HUTCHISON, M.D. F.R.C.P., Assistant Physician to the London Hospital and to the Hospital for Sick Children, Great Ormond Street, Author of "Food and the Principles of Dietetics," Joint Author of "Clinical Methods." London. Edward Arnold, 1904, Pages xii + 338. Illustrations 52. Diagrams 13. Crown 8vo. Price 8/6 net.

THE lectures in this book, as stated by the author in the preface, were delivered in the form of a systematic course at the London Hospital, and were first published serially in the "Clinical Journal." It is not intended to be an exhaustive treatise on the diseases of children, but chiefly to deal with the common diseases of childhood from a purely clinical standpoint.

We think the author has admirably succeeded in his aim and object. The fact that the work is written in a more or less colloquial style adds to, rather than detracts from, its interest. The book abounds in sound practical teaching, and the parts dealing with treatment, which is laid special stress on, are not the least valuable portions of the work. The opening lecture on the clinical examination of sick children, is especially full of most useful hints and advice. The whole subject has been approached in a thoroughly practical and sound manner, and clearly demonstrates that the author not only has a thorough practical knowledge of his subject, but has also the much rarer gift of being able to impart that knowledge in a clear and interesting manner.

In India especially, where the diseases of children form so large and important a part of medical practice, a work of this nature should meet with a speedy sale. We can most strongly recommend it to the careful study of all those who take an interest in the subject, as one of the best, soundest, and most practical works of its kind, and feel confident that no one can read without gaining much valuable help and information.

The book is well printed in clear large type, and the plates bring out clearly the points they are intended to illustrate.

Guide to the Examination of the Throat, Nose and Ear for Senior Students and Junior Practitioners.—By WILLIAM LAMB, M.D., C.M. (Edin.), M.R.C.P. (London.), Honorary Surgeon, Birmingham Ear and Throat Hospital. No. of pages xii and 152. Illustrations 32. Price, 5/- net. Publishers: Messrs. Baillière, Tindall and Cox, Covent Garden, London.

THE author in this little book has aimed at being extremely elementary and practical, trying to anticipate the difficulties which the student or young practitioner is likely to meet with when he begins to examine the cases of disease of the throat, nose and ear, and, as far as possible, to simplify them.

In the case of each region a sketch of the normal topography and appearances is first given, and this is followed by a brief outline of the principal alterations from the normal which the student may expect to meet with in the course of his work. A few practical hints on methods of local treatment have been added.

The book is divided into seven chapters. The first deals with the difficulties of examination, with directions regarding the light, the reflection and the position of the patient.

In Chapter II we have an account of the examination of the mouth and pharynx, including the naso-pharynx.

Chapter III deals with the examination of the nose; Chapter IV of the larynx.