GOVERNMENT NOTIFICATION.—No. 726.

The following Despatch, which was laid before the Legislative Council on the 25th instant, is published.

By Command,

J. H. STEWART LOCKHART,
Colonial Secretary.

Colonial Secretary's Office, Hongkong, 26th November, 1901.

The Governor to the Secretary of State.

No. 438.

GOVERNMENT HOUSE,
HONGKONG, *25th October*, 1901.

SIR,

With reference to my Despatch (No. 254 of the 13th of last July,) forwarding petition on the question of Hongkong Sanitation and especially calling attention to the system of drainage that has been adopted, it may be interesting to attach Extracts from the Reports made by Mr. MANSERGH in 1898, upon the surface drainage system of Colombo, and in 1890 on the surface system in Melbourne, by which it will be seen that surface drainage has its dangers and disadvantages. I also enclose an Extract from the *Times of India* showing that heavy as was, unhappily, the mortality of Hongkong in 1900, from the results of the plague epidemic, the total death rate, including plague mortality, of 24.12 per mille contrasts very favourably with the 97.02 per mille shown by the Bombay returns.

Enclosure 1.
Enclosure 2.
Enclosure 3.

I have the honour to be,

Sir,

Your most obedient humble Servant,

HENRY A. BLAKE,
Governor.

The Right Honourable
J. CHAMBERLAIN, M.P.,
His Majesty's Principal Secretary of State for the Colonies,
&c., &c., &c.

(Enclosure 1.)

Extract from Report on the Drainage of Colombo by James Mansergh, 1898.

After I had left Colombo some discussion appears to have arisen with regard to underground sewers, and the water carriage system generally, which culminated in the passing by the Municipal Council of the following resolution some time in the beginning of April, 1897 :—

> "This Committee is opposed to the introduction into Colombo of closets or latrines on the water carriage system.
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> "Further the Committee considers that all drainage should—wherever possible—be carried in open surface drains, and that no sewers or drains underground should—except where absolutely necessary—be provided."

I think I may say that if such a resolution had been put into my hands when it was first intimated to me that the Ceylon Government desired my advice, I should probably have declined the commission.

Things have, however, now gone too far and I must prepare my report in accordance with the instructions contained in your letter of the 10th July, 1896, and this being so, I had better deal at once with the Council's resolution.

This resolution refers to two separate and distinct matters, and it will be more convenient to discuss first that which comes last in order, viz., the objection to underground sewers and the desire "that all drainage should wherever possible be carried in open surface drains."

1st. My first remark is that the system of open surface sewers is one that cannot be carried out in Colombo so as efficiently to get rid of the evils and nuisances which now exist, for

2nd. The primary object of all sewers is to remove as speedily as possible from the vicinity of human habitations the fouled water supply and other liquid refuse; and if a proper system is constructed in Colombo it will, I doubt not, ultimately be utilised to carry away a great part of the solid and fluid dejecta of the population.

3rd. This speedy removal—so essential to the maintenance of safe sanitary conditions—cannot be effected by any channels or conduits whether open or closed which are not laid with sufficient falls to ensure their having self-cleansing velocities.

4th. It is impossible owing to the configuration of its site to construct in Colombo drains on the surface that will conform to this requirement.

The only way to secure self-cleansing sewers in many of the roads is to cut down into them and so create falls steeper than those of the surface, and this must be done in places to the extent of many feet, so that it would be absolutely impossible to have such sewers open, for the inconvenience would be intolerable, and the cost prohibitive.

5th. Underground sewers are therefore indispensable and if these are designed on proper pinciples and constructed of suitable materials and in a workmanlike manner there is no reason in my opinion why private closets and public latrines should not be adapted to the water carriage system.

6th. This opinion is, I regret, in direct opposition to that of the Council as expressed in their Resolution, but it appears to me that I should not be adequately performing my duty if on that account I failed to advise on this matter to the best of my judgment.

7th. In England there are still a few towns which have the old fashioned cesspits and others where the excreta is dealt with by some form or other of the pail system, but these methods are steadily giving way before the introduction of the ordinary water closet or the slop-closet by means of which the water supply, fouled in every possible way, is carried off by the sewers.

8th. I am free to admit that it may not be possible in Colombo to adopt the water carriage system to so great an extent as is being done at home, but I am quite clear that it would be a mistake to condemn the whole town for all time to any method which involves the retention of human excrement in or adjoining the houses a moment longer than is absolutely necessary.

The foregoing unexaggerated description of the existing arrangements shows that the present system (if system it can be called) is one under which the personal and household filth of the people is retained in, under, and around their dwellings for a time, and to an extent, which can have only one result, viz., a death-rate probably twice as high as it need be and a corresponding amount of sickness and domestic misery.

Further it is a system in which the method of disposal of so much of the filth as is removed, is crude, unscientific and disgustingly objectionable.

So far as my experience qualifies me to give an opinion I have no hesitation in saying that the remedy for these evils is to be found in the provision of a complete scheme of underground sewers by means of which all this filth can be speedily removed from the dwellings of the people and discharged into the sea where it cannot do any harm nor give rise to any nuisance.

(Enclosure 2.)

Extract from Report on the Sewerage and Sewage Disposal of Melbourne by James Mansergh, 1890.

PRESENT SANITARY CONDITION.

Having now described in general terms the boundaries, area, physiography, and present population of the district to be dealt with I will say a few words about its sanitary condition.

In doing so I will make no excuse for quoting freely from the very admirable and exhaustive Reports of the "Royal Commission appointed in March, 1888, to enquire into and report upon the sanitary condition of Melbourne." My appointment is one of the outcomes of the Commissioners' investigations and recommendations, and therefore my report may be considered in a sense a sequel to their reports, and to be read after them.

I have deemed it advisable, however, to incorporate herein so much of the evidence they have collected, and the opinions they have formed, as will serve as part of the basis for my advice, and will render my story logically complete in itself.

I can confirm the statements contained in the Commissioners' Reports from the personal inspection of public roads, rights of way and private property both inside and out all over the Metropolis.

I sailed down the Yarra from near Dight's Falls to Hobson Bay and walked along every tributary on the district, and I carefully inspected several of the localities where typhoid and diptheria had specially prevailed.

Everyone is conversant with the arrangement under which practically all the fouled liquids of Melbourne flow in open gutters on the surface of the public streets.

The Commission's detailed description is as follows:—

> "The liquid refuse is conducted in the first instance into the street channels. It consists of urine, a small quantity of night-soil, kitchen water, bath water, soap suds from the washing of clothes, the drainage from stables and cow-sheds, the waste liquids and washings of trades and manufactories, mixed to a varying degree with the surface water from the streets and house roofs. The amount of the refuse is also constantly varying. At one time the street channels are full to overflowing, at another many of them are dry."
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> "The channels are open, and constructed of stone pitchers. As a rule the pitchers have sand, or sand and tar, between the joints; in a few instances only is lime mixed with the sand, or is cement used, so as to render the channels impermeable. In a very few cases tar (miscalled asphalte) channels have been made."
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> "In many of the suburbs a large proportion of the channels are still unmade; the liquid sewage from the houses passes sluggishly along natural channels in the ground, here and there accumulating and stagnating, and everywhere soaking into and polluting the soil. In sandy districts the liquid house refuse is largely allowed to lose itself in the sand around the houses. The channels which have been made are not at all accurately levelled with a sufficient fall, and not infrequently the flow is

checked by solid refuse which collects in them. Under such circumstances the sewage lingers in the channels and undergoes decomposition. The permeable joints of the pitchers allow great contamination of the soil beneath. This evil is greatest where blocks of houses are intersected by branching lanes and passages in which channels, having often only a slight fall, may be traced for long distances, uniting together and bending at various angles before they reach the main channel in the street. In some instances these complicated channels in the blocks cannot reach the streets directly; a length of underground piping is necessary, which commences at a catch-pit, covered by a grating. During heavy rains, solid refuse of all kinds is swept down the channels and accumulates over the gratings, and the drainage then overflows the lanes and yards. Thus the soil is constantly being polluted in greater or less degree; and in the crowded portions of the Metropolis, where the evil is greatest, the floors of the houses are often close to the ground so that the mischief is intensified. In certain places crude forms of underground drainage have been introduced to remedy the ill conditions of groups or terraces of houses; but it is questionable whether the remedy so applied does not involve greater dangers to health than the open nuisance originally existing."

"Owing to the careless manner in which the pan-closets are constructed, without impermeable floors, and owing to the use of old and worn-out receptacles, the soil under them is frequently polluted. In some parts, also, the soil has not yet completely recovered from the contamination that was produced during the existence of cesspits. In the low-lying parts of the Metropolis the subsoil is exceedingly damp, so that the walls of tenements suffer."

"The stagnant decomposing drainage also gives off offensive emanations which pollute the air. The underground sewers are not sufficiently ventilated, offensive gases escape through the various openings, and accumulations of a black and very offensive silt frequently occur, which is removed through manholes. During this process of removal the smell from the sewers is very offensive, and the air is necessarily polluted."

In the course of their enquiries the Commission put the following question in writing to the Clerks of the various Municipal Councils in the Metropolitan area:—

"Are there separate drains for the slops and liquid refuse of the houses?"

To this question the reply, in 17 cases out of 18, was in the negative.

With regard to the 18th I am a little dubious, but practically it may be assumed that this arrangement of open gutters conveying chamber slops and other foul liquids in the open is universal.

Over a great part of the Metropolitan area the fall in the channels is fairly good, but in some parts of South Melbourne, and notably in Port Melbourne, they are of necessity laid with terribly flat gradients, and as a consequence the fluids stagnate and become a source of great offence.

Under Mr. THWAITES' supervision this state of things is now being materially improved.

It is to be hoped that in laying out—in the future—any such low-lying districts as parts of South Melbourne, and Port Melbourne, arrangements will be made to prevent houses being erected with their ground floors at so slight an elevation above sea level in Hobson's Bay as they are in those towns.

The besodden condition of the subsoil can now be remedied only by pumping the water out of it by artificial means ; it would have been infinitely better to have raised the sites high enough to provide natural drainage by gravitation.

I believe there is no necessity whatever for me to labour the open-gutter part of the question.

During the whole time I was in Melbourne I heard many expressions of disapproval of this system, and not a word in its justification, and I take it for granted that public opinion is quite ripe in favour of a radical change.

In some of the more densely populated districts, such as Melbourne City, Collingwood, Fitaroy, Prahran, and Richmond, underground sewers have been constructed to collect the contents of the open channels and convey them to the river.

The principal of these are in Swanston, Elizabeth and King Streets, in Melbourne City, discharging into the Yarra ; in Arden Street, North Melbourne, discharging into Moonee Ponds Creek ; the Reilly Street, partly open, drain through Fitzroy and Collingwood into the Yarra ; and the Palmer Street main in Richmond also into the Yarra.

In Collingwood there are about five miles of underground sewers ; and in Richmond considerable works were in course of construction at the time of my visit, and I went over them with Mr. ALFRED CLAYTON, the City Surveyor.

I examined the outfalls of all these sewers, and found that the liquid being discharged was to all appearance quite as offensive and polluted a compound as the sewage of a fully water closeted town.

(Enclosure 3.)

Extract from the "Times of India" of the 21st September, 1901.

HONGKONG AND THE PLAGUE.

It is now seven years since the island of Hongkong underwent its first visitation of plague. It does not augur well for the future immunity of the colony that after enduring several severe outbreaks, it has just passed through another epidemic more virulent than any of the earlier ones. The disease began to assume an epidemic form towards the end of April, reached its height in June, and rapidly declined in July. The worst statistics were recorded during the first week in June, when the number of cases reached 212, with 206 deaths. These figures will appear exceptionally light to stricken Bombay. Even allowing for the far smaller population—the new census report puts the total number of the inhabitants of the colony at 283,000—it is obvious that, by comparison, Hongkong has escaped almost mildly. Since 1894, the island has only had nine thousand reported cases of bubonic plague, with a mortality averaging from 89 to 96 per cent. The citizens of Hongkong appear to regard these returns as constituting sufficient reason for making agonizing appeals to the Secretary of State for the Colonies concerning the local Administration. If Hongkong had been compelled to endure the far worse experience of Bombay and other Indian cities, its public men would probably have learned to accept its misfortunes more calmly. The rate of mortality in Hongkong was appreciably higher than in Bombay, but the incidence of the disease was far less. During the single year ending in May, 1900, the city of Bombay,

out of an average population of 740,000, recorded 18,310 plague attacks, out of which there were 13,928 deaths. These mortality figures represent correctly diagnosed cases. If suspicious cases are added, the plague mortality is brought up to 25,645. But this is not all; for in that same disastrous year there were 46,000 deaths set down as due to ordinary causes; and as these "ordinary" deaths were 22,000 in excess of the normal annual death-rate, it may be assumed that some of them were also due to plague. The total number of deaths from all causes in Bombay during 1899-1900 was 71,801, representing a death-rate of 97.02 per mille.

If the Hongkong community realised the terrible significance of these figures, it would congratulate itself that the colony had been so fortunate. Proportionately, far more money was spent in Bombay, the preventive arrangements were far more elaborate, and the population was probably more amenable to precautionary measures, and in particular to inoculation. Moreover, we are inclined to think that there was, and still is, not much essential difference between the sanitary condition of Bombay and Hongkong. Yet Hongkong has not, in seven years, had to face a total plague mortality of 10,000. Under the circumstances, the sudden agitation in Hongkong about the inefficiency of the Government preventive measures strikes the observer at a distance as rather amusing, and to some extent ungrateful. If the far wider experience of plague now available in India may be taken as a criterion, the Hongkong Government is entitled to a large amount of credit for having kept its plague epidemics within such narrow limits. The Hongkong public may be recommended to study the history of plague in Western India. They will then discover that public bodies in India realised in less than seven years that petitions and "representations" had no effect on the plague mortality, and that business men ultimately came to the conclusion that the measures for fighting a disease of which so little is known, were best left in the hands of Government and their skilled advisers.

In one respect the last Hongkong epidemic presented a feature for which no parallel can be found in India. In six weeks, in the not very large European community, twenty-five persons were attacked and nine died. Possibly it was the unexpected revelation that Europeans were less immune than was supposed, which caused the residents in Hongkong hurriedly to draft a formidable petition to the Secretary of State. The majority of their grievances are of purely local interest, and need not be specified here. They complain that nineteen years ago a sanitary expert was brought out from England to enquire into the sanitation of Hongkong, and that "with a few exceptions the whole of his recommendations have been ignored." A memorandum signed by Mr. STEWART LOCKHART, C.M.G., Colonial Secretary, and two other members of the Administration, makes short work of this rather reckless allegation. By no stretch of imagination can Hongkong be described as sanitary; but Mr. LOCKHART and his colleagues clearly demonstrate that at any rate Mr. CHADWICK's recommendations have been carried out, save only those which would have imposed an impossible strain upon the limited resources of the colony. The petitioners have artlessly placed before Mr. CHAMBERLAIN an assertion made by Dr. J. A. LOWSON in 1895 about the ease with which a plague epidemic could be "got under rapidly if men in sufficient number could be got to do the work." Upon such windy observations as this their case seems to be based. We in India know something about the armour-plated self-confidence of the Hongkong plague experts; but apparently these prophets are still enjoying unusual honour in their own country.

The one strong point in the petition is the appeal for the appointment of a Commission to investigate and report upon the sanitary condition of the colony. The implication of lack of confidence in the Hongkong Government contained in this request has, however, been largely discounted; for a similar suggestion has been forwarded to the Colonial Office by Sir HENRY BLAKE, the Governor. The

scheme for an elaborate enquiry into Hongkong sanitation is, indeed, one in which all parties may join; but the criticism on the plague administration is another matter. Doubtless the Government made many mistakes; blunders have been perpetrated by all executive authorities called upon to face an outbreak of plague. But careful examination of the reports conveys the impression that the measures taken were reasonably adequate; and the Government are at least entitled to be judged by results, which, to those who know what plague has meant to India, will appear remarkably successful. Before the Hongkong public devoted themselves to their favourite pastime of attacking the local administrators, they might have looked farther afield. At present they seem unconscious of the littleness of their fancied woes. It may be added that Sir HENRY BLAKE, unlike the community over which he rules, appears to have studied carefully the lessons of the Bombay epidemics. In an interesting despatch to the Secretary of State, he mentions that he recommended the tentative adoption of the Bombay system of permitting patients to remain in their houses to be nursed by their friends under proper restrictions. The Sanitary Board, from some inscrutable reason, declined to accept his suggestion. Sir HENRY BLAKE adds his personal belief that removal two or three miles to a hospital lessened the chances of a patient's recovery. In this respect, of course, his view is entirely borne out by the experience gained in Bombay. Another lesson derived from Bombay by the Governor was utilised without demur. Instead of disinfecting only the floor on which a case occurred, the whole house was ordered to be disinfected, as is done here. It seems surprising that such an obvious precaution was not locally originated. But they are sometimes curiously conservative in Hongkong. We gather from the local papers that there are still prominent personages in that eccentric island who decline to believe in the malignancy of the *anopheles* mosquito.

GOVERNMENT NOTIFICATION.—No. 727.

The following Report of the Commission appointed by His Excellency the Governor to enquire into and report on the question of the existing difficulty of procuring and retaining reliable chair and jinricksha coolies for private chairs and jinrickshas, which was laid before the Legislative Council on the 25th instant, is published.

By Command,

J. H. STEWART LOCKHART,
Colonial Secretary.

Colonial Secretary's Office, Hongkong, 26th November, 1901.

REPORT OF THE COMMISSION APPOINTED BY HIS EXCELLENCY THE GOVERNOR TO ENQUIRE INTO AND REPORT ON THE QUESTION OF THE EXISTING DIFFICULTY OF PROCURING AND RETAINING RELIABLE CHAIR AND JINRICKSHA COOLIES FOR PRIVATE CHAIRS AND JINRICKSHAS.

The undersigned, Members of a Commission appointed to inquire into and report on the question of the existing difficulty of procuring and retaining reliable private chair and jinricksha coolies, have the honour to report as follows:—

1. We have held 14 Meetings between 3rd September and 4th November, 1901, and have examined 30 witnesses.

2. We have ascertained the views, on certain points, of over 120 residents by means of a printed paper of questions, which forms Appendix *C*.

3. The answers to those questions show conclusively that there has been difficulty in procuring and retaining reliable private chair and ricksha coolies.