

The Straits Settlements medical report.

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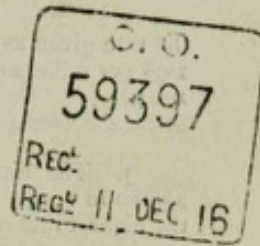
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STRAITS SETTLEMENTS.

The Straits Settlements Medical Report for the year 1915.

POPULATION AND HEALTH.

1. The following table gives the estimated population and the birth and death-rates for the years 1914 and 1915:—

| SETTLEMENT. | Estimated mean Population. | | Births No. | | Deaths No. | | Birth Ratio per mille. | | Death Ratio per mille. | |
|--------------------|----------------------------|---------|------------|--------|------------|--------|------------------------|-------|------------------------|-------|
| | 1914. | 1915. | 1914. | 1915. | 1914. | 1915. | 1914. | 1915. | 1914. | 1915. |
| Singapore ... | 330,199 | 339,678 | 8,780 | 8,816 | 11,256 | 9,214 | 26.60 | 26.00 | 34.09 | 27.13 |
| Labuan ... | 6,746 | 6,768 | 185 | 164 | 145 | 142 | 27.42 | 24.23 | 21.61 | 20.98 |
| Penang ... | 145,618 | 147,343 | 3,731 | 4,115 | 5,244 | 4,525 | 25.62 | 27.93 | 36.01 | 30.71 |
| Province Wellesley | 133,402 | 135,247 | 4,371 | 4,359 | 3,745 | 3,512 | 32.77 | 32.23 | 28.07 | 25.97 |
| Dindings ... | 8,915 | 9,620 | 272 | 279 | 340 | 259 | 30.51 | 29.00 | 38.14 | 26.92 |
| Malacca ... | 134,225 | 137,788 | 4,741 | 5,078 | 5,176 | 4,981 | 35.32 | 36.85 | 38.56 | 36.14 |
| Total ... | 759,105 | 776,444 | 22,080 | 22,811 | 25,906 | 22,633 | 29.09 | 29.25 | 34.13 | 29.15 |

The figures for the European population are:—

| — | Estimated mean Population. | | Births No. | | Deaths No. | | Birth Ratio per mille. | | Death Ratio per mille. | |
|----------------------|----------------------------|-------|------------|-------|------------|-------|------------------------|-------|------------------------|-------|
| | 1914. | 1915. | 1914. | 1915. | 1914. | 1915. | 1914. | 1915. | 1914. | 1915. |
| Straits Settlements. | 7,883 | 8,086 | 194 | 196 | 98 | 121 | 24.61 | 24.24 | 12.43 | 14.96 |

The population of the last Census (1911) was 711,951 and is estimated at 776,444 for 1915.

2. The population of the Colony as given in the above tables is calculated upon the last two Census figures (1901 and 1911) by geometrical progression as for normal times but the year under review has been abnormal. During the first three months of the year cooly immigration was prohibited, limited immigration was allowed until the first week in July, after which all prohibition was removed. The errors in the estimated population of 1914 dealt with in my previous report are probably exaggerated in the figures given for 1915.

The total immigrants from China in 1913 was 240,979

“ “ “ “ 1914 “ 147,150

“ “ “ “ 1915 “ 95,735

though it must be remembered that only a proportion of these are for the Colony.

It should also be mentioned that with the departure of many Europeans for service the figures in the second table given above will be somewhat unreliable.

The Municipal Health Officer, Singapore, in his report for 1915, works in detail reasons showing that the calculated death-rate for the Municipality, given as 27.39 per mille, should probably be more correctly estimated as 30.5 per mille, an increase of 3.11. Working at the figures for the Colony upon somewhat similar lines I consider

the rate given as 29·15 per mille to be more correctly a rate of 31·13, an increase of 1·98 per mille, and even this increased rate is 3 per mille lower than the figures for 1914.

Births.

3. The births registered during the year numbered 22,811 as compared with 22,080 in 1914. The ratio per mille is 29·25, against 29·09 in the latter year. This is the highest rate recorded since the new Registration Law of (1897) and is still higher considering the probable over-estimation of the population.

Deaths.

4. The deaths from all causes registered in 1915 numbered 22,633, compared with 25,906 in the preceding year. This corresponds to a ratio per mille of 29·15, a large decrease compared with the previous year (34·13 per mille). The average for the last ten years, 1906 to 1915, was 38·27. The death-rate after deducting those dying within three months of residence in the Colony and those dying at Quarantine Stations is 28·18 per mille, compared with 33·12 per mille in the preceding year.

There has been no outbreak of epidemic disease and the year closed with a low death-rate and a high birth-rate, each forming a record.

Infantile Mortality.

5. The infantile mortality gives a ratio of 236·68 per mille, compared with 250·23 per mille in 1914 and 271·34 in 1913 after excluding all children born elsewhere than in the Colony.

The largest infantile death-rate is amongst Malays and is principally due to faulty feeding. As pointed out by Dr. KEUN, Chief Medical Officer of Malacca, Malay mothers frequently feed their infants of but a few days old on soft boiled rice, especially if and when the infant cries. Needless to say such action rapidly leads to severe indigestion and often to convulsions, by far the commonest cause of the high death-rate.

To rectify this malpractice Dr. KEUN has lectured in the vernacular in many villages and also to native midwives so that they may help by instructing the new mothers as to the successful rearing of their babies. His lecture in pamphlet form has been printed and is being distributed. Thanks to work on these lines, to the gradual increase of trained native midwives, and to the work in the Municipalities carried out by inspecting nurses, progress is being made and there is reasonable hope that succeeding years will show still further decreases in the infantile death-rate.

The training of native pupil midwives progresses satisfactorily in Singapore; a start will shortly be made in the New King EDWARD VII Memorial Maternity Hospital in Penang, as also in the recently completed new lying-in ward at Durian Daun Hospital, Malacca.

European Officials.

6. Table showing the sick, invaliding and the deaths of European Officials of all ranks:—

| | 1914. | 1915. |
|--|-------|-------|
| (1) Total number of Officials resident ... | 433 | 417 |
| (2) Average number resident ... | 377 | 322 |
| (3) Total number on sick list ... | 128 | 158 |
| (4) Total number of days on sick list ... | 1,705 | 2,102 |
| (5) Total number invalided ... | 8 | 10 |
| (6) Total deaths ... | 4 | 6 |
| (7) Total deaths in the Colony ... | 3 | 5 |
| (8) Average daily number on sick list ... | 35 | 44 |
| (9) Average number of days on sick list for each patient ... | 13·32 | 13·3 |
| (10) Percentage of deaths to average number resident ... | 1·06 | 1·87 |

Zymotic Diseases.

7. The following table gives the number of cases of zymotic diseases occurring in the Colony during 1914 and 1915, excluding imported cases:—

| SETTLEMENT. | PLAGUE. | | | | CHOLERA. | | | | SMALL-POX. | | | |
|-----------------------|---------|---------|--------|---------|----------|---------|--------|---------|------------|---------|--------|---------|
| | 1914. | | 1915. | | 1914. | | 1915. | | 1914. | | 1915. | |
| | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| Singapore ... | 16 | 13 | 35 | 31 | 311 | 240 | 10 | 6 | 16 | 3 | 19 | 7 |
| Penang ... | ... | ... | 2 | 2 | 6 | 5 | ... | ... | ... | ... | 36 | 10 |
| Province Wellesley... | ... | ... | ... | ... | 14 | 13 | 7 | 4 | 1 | ... | 5 | ... |
| Malacca ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 | ... | ... | ... |
| Labuan ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Dindings ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 16 | 13 | 37 | 33 | 331 | 258 | 17 | 10 | 20 | 3 | 60 | 17 |

There were 37 cases of plague; 35 occurred in Singapore with 31 deaths and 2 in Penang with 2 deaths. The cases, of a sporadic nature, distributed throughout the year, occurring in various parts of the town and with no discoverable sources of infection.

Of the 17 cases of cholera with 10 deaths noted for the year, 7 cases with 4 deaths occurred in Province Wellesley, the remainder in Singapore. In the previous year there was a total of 331 cases with 258 deaths.

Sixty cases of small-pox were notified of which 19 occurred in Singapore, 36 in Penang, and 5 in Province Wellesley; of these 17 ended fatally. The total cases in the preceding year were 20 with 3 deaths.

During the year there were 30,996 vaccinations, excluding those performed within the Singapore Municipal Limits. Of these:—14,407 were successful, 302 failed and 18,178 were unseen, the most of the latter occurring amongst up-country Malays in Malacca.

Four cases of Diphtheria were notified to the Municipal Health Department, Singapore, during the year. The total number of deaths from this cause in the three Settlements was 7, compared with 6 in 1914. Of the 4 cases treated in the Hospitals of the Colony 1 ended fatally.

The total number of deaths from Enteric Fever was 87, compared with 101 in the previous year. Of 100 cases treated in the Hospitals throughout the year 44 per cent died. As pointed out in previous reports, patients come to the Hospitals in the last stage of their disease when recovery is practically hopeless and our death-rate is necessarily excessive.

Beri-beri.

8. The deaths from Beri-beri were 1,079, compared with 1,483 in 1914 and 1,657 in 1913. Deaths from this disease have steadily decreased since 1911, when they totalled 2,056.

Leprosy.

9. Considerable interest has been shown of late in the treatment of this disease by Chaulmoogra Oil. An old remedy, it sprung into prominence recently from reports by Dr. VICTOR HEISER, Director of Public Health in the Philippine Islands, upon its efficacy when administered hypodermically.

In the Straits Female Asylums, 18 cases have been systematically treated with this drug. Of these:—6 have shown marked improvement, 2 slight improvement, in 10 the condition has remained unchanged.

In the Male Leper Asylum on Jerejak Island, Penang, some 70 cases are undergoing treatment. Dr. HEISER visited the station in the middle of the year giving us the advantage of his assistance as to the details of the technique of the treatment.

Many patients have expressed their satisfaction at the immediate results of the treatment. Pain has been lessened, sensation where lost has wholly or partly returned, movement of diseased fingers become easier, nodes have shrivelled, ulcers improved and even healed, and dermatitis cleared up.

In one case the disease appears to be in abeyance and it is hoped that further treatment will result in permanent cure.

But, as has been the experience of others, it is difficult to induce patients to submit to the treatment over long periods with regularity on account of the pain produced by the injections, and this notwithstanding the improvement to be noticed in many of the cases. It is hoped that a purified oil, the injection of which would be painless, will eventually be procured.

Recent cases of the nodular variety appear to be those most susceptible of improvement.

Drs. MCCOY and HOLLMANN, working at the Molokai Leper Settlement, Hawaii, have recently stated that Chaulmoogra Oil is helpful to many, perhaps the majority of cases of leprosy, that the hypodermic method of administration seems to have given good results, and therefore a further and more extended trial is warranted. That is our experience. They go on to say that the use of Chaulmoogra Oil as at present practised "is not the solution of the problem of the therapeutics of leprosy." Dr. SAYERS in Penang and Dr. ADAMS in Singapore have been in charge of the cases and are carefully recording results.

Veneral Diseases.

10. The total cases treated in all hospitals in 1915 was 4,124 with 56 deaths, compared with 3,472 with 34 deaths in 1914. This increase is noticeable for while the more important diseases treated in the hospitals show a marked decrease during the year, venereal diseases have increased by nearly 20 per cent compared with 1914. Dr. GIBBS' report on the Lunatic Asylum appearing in Appendix A, Table X (a) shows that a high percentage of the admissions were due to syphilis amounting to exactly double the number shown seven years previously.

Veneral Diseases are treated at all Out-Door Dispensaries free and every encouragement given to patients to attend until completely recovered.

The number of deaths returned from these diseases by no means gives the true death-rate, not even a small percentage of it. The far reaching effects of syphilis upon arteries, the heart and other internal organs and upon a second generation, are the cause of a high death-rate returned under such headings as Aneurism, different forms of paralysis, heart disease, disease of various internal organs, convulsions, marasmus, and many others. Gonorrhœa also is the original cause of many conditions leading to death, mostly returned under many headings other than gonorrhœa.

Considerable attention is being paid to this subject at present and a Royal Commission is now sitting in England whose report is to be expected shortly. How far recommendations made by the Commission will be within the bound of practical politics for this Colony remain to be seen but existing conditions here are such that it is probable but few recommendations suitable for European countries will be equally useful for the Straits Settlements.

The New Quarantine Ordinance gives discretionary power to the Port Health Officer to prevent the arrival in the Colony, among others, of people suffering from syphilis.

Phthisis.

11. The deaths registered from this cause were 2,580, against 2,775 in 1914 and 2,424 in 1913. Towards the end of the year, with the transfer of many of the chronic insane from the Pasir Panjang Hospital to the Federated Malay States Asylum, a large ward became available for the treatment and segregation of cases of Phthisis in an excellent site upon the sea shore. A second ward with 40 beds will be shortly vacant and can be used for similar cases. But few cases have taken advantage of this occasion for obtaining free treatment. It is probable that legislation will be necessary before full use is made of this opportunity for suitable treatment in early cases and for the removal from the town of those advanced, hopelessly incurable cases, now living mostly in insanitary surroundings, and who are undoubted foci for the infection of others.

Dysentery.

12. The deaths from this cause totalled 769 as against 1,097 and 1,016 in 1914 and 1913. Of the cases treated in hospitals, which totalled 1,267, four hundred and seven cases ended fatally, against 1,470 with 530 deaths in 1914. Some statistics were taken as to the relative value of Emetine, locally prepared at slight cost by the

Government Analyst and that obtained from Burroughs and Welcome, in the treatment of the amœbic form of this disease. Further investigation will be made but generally speaking that locally prepared was equally efficacious.

Malaria.

13. The deaths from Malaria numbered 2,929, as compared with 3,516 in 1914 and 2,878 in 1913. The corresponding figures for fevers unclassified were 3,168, 4,183 and 4,746, respectively. No doubt many deaths from Malaria are returned under the latter head. The admissions to the hospitals of the Colony, where all cases are diagnosed microscopically, were 5,590 cases with 311 deaths, a reduction of 2,539 cases and 217 deaths, respectively, as compared with 1914.

The following preventive measures were undertaken:—

| | | |
|---|----------|-------|
| <i>Singapore.</i> —New sub-drainage works completed in Telok Blangah District at a cost of | \$ | 3,329 |
| Maintenance of existing earth drains, Kampong Bahru District... | 5,448 | |
| Sub-drainage works carried out at the cost of private owners ... | 391 | |
| Amounts expended for labour from Anti-Malarial Fund ... | 6,754 | |
| Improvements to outfall ditch at Tan Tock Seng's Hospital ... | 1,494 | |
| Drainage at Goodwood Estate | 2,989 | |
| Total ... | \$20,405 | |

Penang.—Three thousand eight hundred and eighty lineal feet of concrete drains were constructed in the various villages in Penang and 227 lineal feet at the Dindings. A large patch of low-lying ground situated at the side of the Hospital in Balik Pulau village has been improved by the owners. Improvement to the roadside drains in Balik Pulau by reconstruction in concrete cost \$3,335.54 and the completion of the masonry drains at the back of the houses on the east side of the village cost \$2,197.35.

Malacca.—Improvements at Kubu and Koon Cheng Road were completed at a cost of \$927.

Lectures on Malaria were given by the Medical Officer at 19 Vernacular Schools within Municipal Limits.

The spleen rate of 1,470 school boys examined in Malacca was 18.3 per cent.

| | | |
|---|-----|-------|
| <i>Labuan.</i> —Filling in swamps cost | \$ | 1,738 |
| Clearing scrub, empty tins, etc., and drains | 825 | |

Further details will be given in the Special Return in course of preparation for the Home Advisory Board.

Ankylostomiasis

14. The numbers treated in the Hospitals of the Colony for the last five years are:—

| Year. | Remained from previous year. | Admitted during the year. | Total treated. | Deaths. |
|-------------|------------------------------|---------------------------|----------------|---------|
| 1911 | 33 | 586 | 619 | 150 |
| 1912 | 42 | 875 | 917 | 173 |
| 1913 | 91 | 982 | 1,073 | 159 |
| 1914 | 33 | 1,098 | 1,131 | 174 |
| 1915 | 70 | 932 | 1,002 | 141 |

The importance of the consideration of this disease to the Planters of the Colony and Federated Malay States cannot be overrated. In my report for 1914, I stated my hope that with the advent of an increased Health Staff we should be in a position to more efficiently deal with the prevention and eradication of Ankylostomiasis. Existing circumstances are such that we unavoidably remain without the extra Health Officers and work of an original nature is in abeyance. District Medical Officers and Port Health Officers give as much of their time to estate work as they can spare.

A commission from the Rockefeller Institute under Dr. DARLING, is working on the disease and have their laboratory at Kuala Lumpur in the Federated Malay States. A report is expected from them shortly.

15. Hospitals and work done in all Settlements:—

| Year. | Number Treated. | | | Number of Deaths. | | | Percentage of Deaths to Total Treated. | | |
|----------|-----------------|----------|--------|-------------------|----------|--------|--|----------|--------|
| | Europeans. | Natives. | Total. | Europeans. | Natives. | Total. | Europeans. | Natives. | Total. |
| 1910 ... | 1,463 | 34,221 | 35,684 | 64 | 4,465 | 4,529 | 4'37 | 13'05 | 12'69 |
| 1911 ... | 1,702 | 45,260 | 46,962 | 82 | 6,042 | 6,124 | 4'82 | 13'33 | 13'04 |
| 1912 ... | 1,794 | 40,420 | 42,214 | 87 | 4,566 | 4,653 | 4'85 | 11'29 | 11'02 |
| 1913 ... | 2,255 | 37,470 | 39,725 | 82 | 3,853 | 3,935 | 3'66 | 10'28 | 9'09 |
| 1914 ... | 2,555 | 37,926 | 40,481 | 111 | 3,642 | 3,753 | 4'34 | 9'6 | 9'27 |
| 1915 ... | 2,305 | 30,916 | 33,221 | 92 | 2,889 | 2,981 | 3'99 | 9'34 | 8'97 |

Considerable work has been done towards linking up the General Hospital, Lunatic Asylum and Gaol, Singapore, with the New Sewage Scheme and it should be completed early next year. The European Wards of the hospital are having all latrines converted into water closets.

GENERAL HOSPITAL, SINGAPORE.

16. There is a steady increase of patients treated in the European Wards, from 749 in 1912 to 1,089 in the year under review. The death-rate on the total number of patients treated in the wards has diminished from 10'62 per cent in 1911 to 7'59 per cent in 1915. Plans of the new Native Wards were still under consideration at the end of the year.

TAN TOCK SENG'S HOSPITAL.

17. The number of patients treated at this Hospital is as follows:—

| | | | | | |
|----------|-----|-----|-----|-----|--------|
| 1910 ... | ... | ... | ... | ... | 9,978 |
| 1911 ... | ... | ... | ... | ... | 13,398 |
| 1912 ... | ... | ... | ... | ... | 13,274 |
| 1913 ... | ... | ... | ... | ... | 12,025 |
| 1914 ... | ... | ... | ... | ... | 12,015 |
| 1915 ... | ... | ... | ... | ... | 8,407 |

The average daily sick was 538'99 as compared with 652 in 1914. Gas was installed in Wards 4, 6, 7, 14, 15, 17, 18 and the Dispensary. It is hoped to extend the service at a future date to the whole hospital. Quarters for the Surgeon, a second Operation Theatre, a Laboratory, four additional Dressers' Quarters and an extension to the kitchen were completed during the year.

LUNATIC ASYLUM.

18. In December, 100 males and 37 females were transferred to the Tanjong Rambutan Central Asylum in Perak, Federated Malay States, where wards have been built for chronic patients from the Colony, and a further batch of 66 males are to be sent in January, 1916. These transfers will completely relieve the congestion under which the Asylum has laboured for many years.

PENANG HOSPITALS.

19. The total treated in all Penang Hospitals excluding Province Wellesley is 9,315 of whom 346 were Europeans and 8,969 natives. Of these 877 died. Out of 117 major operations 89 were completely successful, 8 were relieved, 4 left not improved and 13 died, leaving 3 remaining under treatment at the end of the year.

The treatment of Chronic Ulcers by X-Rays has been tried with good results in certain cases.

MALACCA HOSPITALS.

20. A new Female Hospital has been built consisting of a remodelling of the old Female Ward into a two-storied building and the erection of two additional wards with 10 beds each. The total cases treated in the General Hospital were 1,223 with 42 deaths, compared with 1,031 and 70 deaths in 1914. The European admissions were 73, against 66 in 1914.

Taking the General and Pauper Hospitals there were 494 Malay admissions as against 233 in 1913 and 291 in 1914. Of the 494 cases 17 were females. This is encouraging and points to the prejudice of the Malay to Western medicine and especially surgery being gradually overcome.

The Report on the Malacca Medical Mission by Dr. ELSIE WARREN chronicles 5,440 attendances. Of these:—2,243 were Malays. The Mission has a travelling dispensary working country villages, thus bringing Western medical treatment to Malay (Muhamadan) women and children, giving assistance to a portion of the community who greatly need it and who in the ordinary course of events would have to go without. A detailed report is attached to the Malacca Report—Appendix D.

The water supply of Malacca obtained from the impounding reservoir at Ayer Kroh has caused some anxiety on account of signs of increased organic pollution as shown by bacteriological examination. Superficially it appeared that much could be done to improve the condition of the water but analysis on the spot showed that the water at the very source of the feeders to the reservoir contained organic pollution in excess of that found in the reservoir itself.

Although this water gives an unsatisfactory analysis neither the Bacteriologist nor myself think its consumption calculated to be injurious to health and examination of the vital statistics of the town shows no excess of deaths as likely to be due to the use of impure water.

Further work is being done with the view of arriving at a definite conclusion as to the origin of the pollution. In the meantime it is useless to make recommendations for improvements, the beneficial results of which can only be problematical.

The populace have been advised to have all water boiled prior to consumption, but merely as a precautionary measure.

ALL HOSPITALS.

21. The total treated and deaths in the Hospitals of the Colony for some of the more important diseases are shown in the subjoined statement with the corresponding figures for the three preceding years:—

| Disease. | 1912. | | 1913. | | 1914. | | 1915. | |
|---------------------------|----------------|---------|----------------|---------|----------------|---------|----------------|---------|
| | Total treated. | Deaths. | Total treated. | Deaths. | Total treated. | Deaths. | Total treated. | Deaths. |
| Malarial Fever ... | 9,474 | 660 | 8,314 | 499 | 8,129 | 528 | 5,590 | 311 |
| Dysentery ... | 1,845 | 654 | 1,479 | 516 | 1,470 | 530 | 1,267 | 407 |
| Diarrhoea ... | 940 | 235 | 878 | 195 | 720 | 127 | 526 | 50 |
| Beri-beri ... | 2,032 | 293 | 2,045 | 187 | 1,764 | 183 | 940 | 92 |
| Phthisis and Tuberculosis | 1,111 | 564 | 1,014 | 493 | 1,226 | 575 | 1,162 | 551 |
| Enteric ... | 133 | 63 | 157 | 56 | 142 | 67 | 100 | 44 |
| Ulcers ... | 4,232 | 3 | 3,320 | 4 | 3,266 | 2 | 2,743 | 2 |
| Venereal Diseases ... | 3,522 | 39 | 3,216 | 50 | 3,472 | 34 | 4,124 | 56 |
| Ankylostomiasis ... | 919 | 173 | 1,073 | 159 | 1,131 | 174 | 1,002 | 141 |

The large decreases in number of patients treated for Malarial Fever and Beri-beri are significant.

PUBLIC HEALTH.

22. In connection with the Estate Labourers' (Protection of Health) Ordinance, minor amendments appear necessary and Government have been approached upon the point. Of Estates over 25 acres in extent, there are in Singapore 213, mostly small.

In Penang and Province Wellesley 44.

In Malacca 34.

There has been no epidemic disease on the Estates of the three Settlements except 7 cases of cholera at the Bakap Plantations and Caledonia Estates, Province Wellesley. The source of infection was not discovered. In all other respects the health of the labour force is satisfactory. Some improvements to housing are necessary but action is slow pending a full working Staff of Health Officers.

The report by Dr. G. E. BROOKE, Appendix F, Chief Health Officer, is interesting as usual.

Both in Singapore and Penang the number of passengers and crews examined are hugely under the normal owing principally to restrictions placed on immigration, the cessation of pilgrimage to Mecca and the practical absence of infectious disease in the chief ports of the East.

OUT-DOOR DISPENSARIES.

23. The total attendances at the Out-door Dispensaries throughout the Colony were 81,852 (37,246 patients), compared with 43,658 patients in 1914 and 40,773 patients in 1913. At the North Canal Road Dispensary, Singapore, 465 Malaria cases were treated and at Jalan Klapa 493. Over half these cases gave a history of having been infected previous to arrival in Singapore.

The experimental dispensary opened in the witness-room of the Court-house at Nibong Tebal, Province Wellesley, has made good progress. This was started in February, 1913. The attendances are as follows:—

| | | | | | | |
|------|-----|-----|-----|-----|-----|-----|
| 1913 | ... | ... | ... | ... | ... | 596 |
| 1914 | ... | ... | ... | ... | ... | 855 |
| 1915 | ... | ... | ... | ... | ... | 874 |

MEDICAL SCHOOL.

24. The total number of students on the Roll for the full course of L. M. S. is 79 of whom 15 joined in the year under report. Nine students received L. M. S. diploma during the year including one female. All joined the Straits or Federated Malay States Government Service permanently or temporarily. Thirty Hospital Assistants (2-year course) are at present undergoing training.

The new Hostel for the Federated Malay States' students was almost completed by the end of the year and will provide a long-felt want.

PATHOLOGICAL DEPARTMENT.

25. Owing to the absence of Dr. FINLAYSON in Europe, Dr. KEITH was placed in charge of this Department in addition to his duties at the Medical School and with the Royal Army Medical Corps. The usual routine work of the Laboratory has been carried out, also a series of blood examinations (Wassermann's) for syphilis amongst the inmates of the Lunatic Asylum; other work of original nature had, perforce, to be stopped. Of 228 lunatics examined there was a positive Wassermann reaction in 101 and a partial positive in 6 showing nearly 50 per cent of these patients to have been infected with syphilis.

LEGISLATION.

26. Two new Ordinances were passed during the year of interest to the Medical Department.

A new Quarantine and Prevention of Diseases Ordinance, an interesting description of which is given by Dr. BROOKE, Port Health Officer, in Appendix F, and an Ordinance to secure the better training of midwives and to regulate their practice.

In connection with the latter Ordinance considerable advancement has been made in the training of midwives. At the Maternity Wards, General Hospital, Singapore, the number of native midwives under instruction at the beginning of the year was 4; all of these have passed and received their certificates. Four more finished their training and received certificates during the year, whilst other four were under instruction at the end of the year.

At the Free Maternity Hospital, Victoria Street, Singapore, native midwives are also being trained. During the year a Malay midwife has been successfully trained for the Kedah Government and a pupil of the Teochew Nonia class has passed out and is working in the town. At the end of the year there were 3 pupils in training, two Chinese, and one Malay, the latter a "bidan" (native midwife) of long standing who was most difficult to break of her bad and septic habits before elementary teaching on correct lines could be attempted. Great credit is due to the Matron for the perseverance and patience showed with this pupil whose advance has been such that she should shortly pass her examination.

This latter hospital is greatly indebted to two Chinese ladies, Mrs. TAN JIAK KIM and Mrs. LEE CHOON GUAN, who have so kindly undertaken all expenses in connection with two pupils in training.

FINANCIAL.

27. The Revenue collected under Hospital Board amounted to \$126,338, being an increase over 1914 of \$11,032—particulars as under:—

| — | Singapore. | Penang. | Malacca. | Total. |
|-------------------------------------|------------|---------|----------|---------|
| | \$ | \$ | \$ | \$ |
| Hospital Bills recoverable ... | 65,606 | 26,921 | 7,496 | 100,023 |
| Quarantine Expenses recoverable ... | 9,850 | 11,709 | ... | 21,559 |
| Destitute Seamen's Fund ... | 2,714 | ... | ... | 2,714 |
| Miscellaneous ... | 200 | 535 | 23 | 758 |
| Interest on Bank balances ... | 573 | 514 | 127 | 1,214 |
| Fines ... | ... | 70 | ... | 70 |
| Total ... | 78,943 | 39,749 | 7,646 | 126,338 |

The most notable increase is that of \$9,804 in "Hospital Bills recoverable," Singapore, due to additional patients treated in the European Wards.

The Expenditure under Hospital Board was \$337,995 as against an estimate of \$357,825.

"Medicines" show a saving of \$6,278 and "Quarantine Stations (Upkeep of)" of \$14,170.

The principal excess was under "Contingent Expenses, Diets and Medical Comforts" \$6,501, due to increased cost of diets. The total expenditure for the service of the Medical Department for 1915 is \$868,914 gross. After deducting the revenue collected, viz., \$126,338, there is a nett expenditure of \$742,576 which equals 95½ cents per head of the population (776,444) of the Colony.

The following table shows the Estimates and Expenditure :—

| | Estimates. | | Expenditure. | |
|--|------------|---------|--------------|--|
| | \$ | | \$ | |
| 1. Hospital Board | 357,825 | 337,995 | | |
| 2. Medical (Personal Emoluments) | 290,887 | 227,122 | | |
| 3. Do. (Other Charges) | 22,430 | 18,153 | | |
| 4. Hospitals and Dispensaries (Personal Emoluments) | 222,948 | 209,697 | | |
| 5. Hospitals and Dispensaries (Other Charges) | 76,570 | 75,447 | | |
| Total | 970,660 | 868,914 | | |

The saving on the Estimates is largely due to the number of Medical Officers who have been seconded for service with the Royal Army Medical Corps.

It may be of interest to attach some figures for the General Hospital, Singapore, showing cost of patients in the different wards, etc. :—

| | European Wards. | Native Wards. | MATERNITY WARDS. | | Total Cost. |
|---|-----------------|---------------|------------------|---------|-------------|
| | | | European. | Native. | |
| | \$ | \$ | \$ | \$ | \$ |
| Total Expenditure | 69,103 | 66,240 | 8,451 | 8,083 | 151,877 |
| Average cost per head per diem | 4'15 | 1'45 | 6'40 | 4'11 | ... |
| Receipts | 43,810 | 10,208 | 3,860 | 679 | 58,557 |
| Average receipt per head per diem... .. | 2'63 | '22 | 2'91 | '34 | ... |

It has not been possible to separate the receipts and costs of the two European Wards but it seems probable that the receipts of the Officers' Wards (1st and 2nd Class Wards) nearly cover the expenses as the number of free cases and cases in which less than the full rates are charged is inconsiderable. Whereas in the Seamen's Ward (3rd Class Ward) a large number of the Subordinate Staff of the Government are received at very low rates.

Drugs, Dressings, Instruments, etc.

28. Considerable difficulties have been experienced in providing the requisite amounts and the cost has been considerably enhanced. With care, economy, and in many cases the use of makeshifts, the difficulties have not proved insurmountable.

The Government Analyst has been of great assistance for, when our stock of Emetine failed and could not be replaced, he extracted the drug from Ipecacuana, of which we have plenty, and the solution as made by him has been found equally efficacious with Emetine Hydrochloride in the treatment of Amœbic Dysentery and is provided at less than one-tenth of the cost of the Home article. He has also been able to convert Salicylic Acid into Sodium Salicylate.

Of quinine there has been no deficiency, large stock having been laid in shortly after war commenced at pre-war prices and a consequent large saving.

MISCELLANEOUS.

29. Nine medical practitioners were registered during the year making a total of 339 on the Register on 31st December, 1915.

Eighty-three licences were issued under the Deleterious Drugs Ordinance; 60 licences were issued under the Poisons Ordinance.

The following were the Hospital Board Members at the end of the year excluding Government *Ex-Officio* Members :—

The Hon'ble F. M. ELLIOT,
Dr. W. R. C. MIDDLETON,
Dr. P. FOWLIE,
F. J. HALLIFAX, Esq.,
GOH TAIK CHEE, Esq.

In conclusion, it is a matter of considerable satisfaction to record that without exception the Medical Staff of the Colony volunteered for active service within a short time of the outbreak of war.

Needless to say all could not be spared but before the end of June, 1915, the European Staff was reduced to 18 as compared with a full Staff of 33. In addition four members of the existing staff are assisting in Royal Army Medical Corps work in the Colony.

The Department could not have stood such a depletion of staff had not the locally qualified men, who form the junior grade of the Department, been increased in number and shown themselves in the main quite competent to carry out the duties entrusted to them.

W. GILMORE ELLIS,
Principal Civil Medical Officer, S. S.

SINGAPORE, 26th June, 1916.

APPENDICES.

| | | | | | |
|---|-----|-----|-----|------|----|
| <i>A.</i> Singapore Hospitals | ... | ... | ... | Page | 15 |
| <i>B.</i> Penang Hospitals | ... | ... | ... | " | 40 |
| <i>C.</i> Province Wellesley Hospitals | ... | ... | ... | " | 48 |
| <i>D.</i> Malacca Hospitals | ... | ... | ... | " | 55 |
| <i>E.</i> Out-door Dispensaries | ... | ... | ... | " | 61 |
| <i>F.</i> Quarantine | ... | ... | ... | " | 66 |
| <i>G.</i> Government Analyst's Department | ... | ... | ... | " | 73 |
| <i>H.</i> Medical School | ... | ... | ... | " | 79 |
| <i>I.</i> Pathological Department | ... | ... | ... | " | 80 |
| <i>J.</i> Labuan Report | ... | ... | ... | " | 84 |

APPENDICES

| | | |
|-----|-----------|-----|
| 1 | Table 1 | 1 |
| 2 | Table 2 | 2 |
| 3 | Table 3 | 3 |
| 4 | Table 4 | 4 |
| 5 | Table 5 | 5 |
| 6 | Table 6 | 6 |
| 7 | Table 7 | 7 |
| 8 | Table 8 | 8 |
| 9 | Table 9 | 9 |
| 10 | Table 10 | 10 |
| 11 | Table 11 | 11 |
| 12 | Table 12 | 12 |
| 13 | Table 13 | 13 |
| 14 | Table 14 | 14 |
| 15 | Table 15 | 15 |
| 16 | Table 16 | 16 |
| 17 | Table 17 | 17 |
| 18 | Table 18 | 18 |
| 19 | Table 19 | 19 |
| 20 | Table 20 | 20 |
| 21 | Table 21 | 21 |
| 22 | Table 22 | 22 |
| 23 | Table 23 | 23 |
| 24 | Table 24 | 24 |
| 25 | Table 25 | 25 |
| 26 | Table 26 | 26 |
| 27 | Table 27 | 27 |
| 28 | Table 28 | 28 |
| 29 | Table 29 | 29 |
| 30 | Table 30 | 30 |
| 31 | Table 31 | 31 |
| 32 | Table 32 | 32 |
| 33 | Table 33 | 33 |
| 34 | Table 34 | 34 |
| 35 | Table 35 | 35 |
| 36 | Table 36 | 36 |
| 37 | Table 37 | 37 |
| 38 | Table 38 | 38 |
| 39 | Table 39 | 39 |
| 40 | Table 40 | 40 |
| 41 | Table 41 | 41 |
| 42 | Table 42 | 42 |
| 43 | Table 43 | 43 |
| 44 | Table 44 | 44 |
| 45 | Table 45 | 45 |
| 46 | Table 46 | 46 |
| 47 | Table 47 | 47 |
| 48 | Table 48 | 48 |
| 49 | Table 49 | 49 |
| 50 | Table 50 | 50 |
| 51 | Table 51 | 51 |
| 52 | Table 52 | 52 |
| 53 | Table 53 | 53 |
| 54 | Table 54 | 54 |
| 55 | Table 55 | 55 |
| 56 | Table 56 | 56 |
| 57 | Table 57 | 57 |
| 58 | Table 58 | 58 |
| 59 | Table 59 | 59 |
| 60 | Table 60 | 60 |
| 61 | Table 61 | 61 |
| 62 | Table 62 | 62 |
| 63 | Table 63 | 63 |
| 64 | Table 64 | 64 |
| 65 | Table 65 | 65 |
| 66 | Table 66 | 66 |
| 67 | Table 67 | 67 |
| 68 | Table 68 | 68 |
| 69 | Table 69 | 69 |
| 70 | Table 70 | 70 |
| 71 | Table 71 | 71 |
| 72 | Table 72 | 72 |
| 73 | Table 73 | 73 |
| 74 | Table 74 | 74 |
| 75 | Table 75 | 75 |
| 76 | Table 76 | 76 |
| 77 | Table 77 | 77 |
| 78 | Table 78 | 78 |
| 79 | Table 79 | 79 |
| 80 | Table 80 | 80 |
| 81 | Table 81 | 81 |
| 82 | Table 82 | 82 |
| 83 | Table 83 | 83 |
| 84 | Table 84 | 84 |
| 85 | Table 85 | 85 |
| 86 | Table 86 | 86 |
| 87 | Table 87 | 87 |
| 88 | Table 88 | 88 |
| 89 | Table 89 | 89 |
| 90 | Table 90 | 90 |
| 91 | Table 91 | 91 |
| 92 | Table 92 | 92 |
| 93 | Table 93 | 93 |
| 94 | Table 94 | 94 |
| 95 | Table 95 | 95 |
| 96 | Table 96 | 96 |
| 97 | Table 97 | 97 |
| 98 | Table 98 | 98 |
| 99 | Table 99 | 99 |
| 100 | Table 100 | 100 |

APPENDIX A.

SINGAPORE.

GENERAL HOSPITAL.

REPORT BY DR. F. B. CROUCHER, M.B., C.M., *Chief Medical Officer-in-charge.*

1. *Hospital Buildings.*—A beginning was made with the building of the new latrines connected with the new Sewage Scheme, but they were not completed at the end of the year.

A new lavatory was also commenced for the Sisters' quarters.

2. *Work done.*—Comparative table showing the total number of patients treated in all wards during the past five years (exclusive of the Maternity patients):—

| Year. | European Wards. | Died. | Percentage. | Native Wards. | Died. | Percentage. |
|-------|-----------------|-------|-------------|---------------|-------|-------------|
| 1911 | 844 | 39 | 4.62 | 4,564 | 485 | 10.62 |
| 1912 | 749 | 39 | 5.21 | 3,584 | 361 | 10.07 |
| 1913 | 791 | 38 | 4.80 | 3,509 | 278 | 7.92 |
| 1914 | 941 | 56 | 5.84 | 3,482 | 326 | 9.25 |
| 1915 | 1,089 | 51 | 4.68 | 3,238 | 246 | 7.59 |

3. Four hundred and ninety-five cases were sent in by the Police for free treatment.

4. Of the above 51 deaths in the European wards, 21 took place within 48 hours of admission, and of the deaths in the Native wards, 98 took place within 48 hours of admission. Deducting these, the death-rate for the European wards was 2.75 per cent, and for the Native wards, 4.57 per cent.

First, Second and Third Class Wards.

5. The first and second-class wards were as usual overcrowded at times, the greatest number of patients in one day being 20 for nominally 16 beds.

The chief diseases treated in these wards are shown below, together with a comparative statement for the previous four years.

Patients in these wards include Europeans, Eurasians and better class Natives.

| Disease. | 1915. | 1914. | 1913. | 1912. | 1911. |
|------------------|-------|-------|-------|-------|-------|
| Malaria | 163 | 204 | 198 | 221 | 239 |
| Enteric Fever | 13 | 12 | 18 | 21 | 14 |
| Phthisis | 20 | 25 | 20 | 10 | 15 |
| Dysentery | 20 | 43 | 19 | 35 | 34 |
| Venereal Disease | 80 | 61 | 63 | 74 | 67 |
| Abscess of Liver | 2 | 2 | 3 | 2 | 6 |
| Appendicitis | 25 | 19 | 6 | 3 | 16 |
| Dengue | 8 | 10 | 29 | 2 | ... |
| Injuries | 77 | 72 | 47 | 104 | 66 |

Other diseases of interest were:—Blackwater Fever 2, Diphtheria 2.

The chief causes of deaths were:—Enteric Fever 4, Pneumonia 2, Septicæmia 1, Uræmia 1, Tuberculosis 4, Nephritis 1, Dysentery 2, Peritonitis 5, and Diphtheria 1.

Surgical Work.

6. The Surgery has been in charge successively of the late Dr. E. D. WHITTLE, Dr. McVAIL (acting), Dr. GRAY (acting), Dr. C. J. SMITH, and Drs. ADAMS and BURNE jointly (acting).

The European operating theatre was used for all cases from the 1st, 2nd and 3rd Class wards and for major operations from the Native wards.

| | |
|--|------------|
| Operation cases from the 1st, 2nd and 3rd Class wards numbered | 262 |
| Operation cases from the Native wards | 687 |
| Total | 949 |

Of this total, 324 were major operations.

Spinal Anæsthesia (Stovaine) was used in 87 cases.

Local (infiltration) Anæsthesia was used in 48 cases.

Salvarsan injections have not been recorded as operations.

There were 949 operations performed for all wards during the year, the chief of which were:—Hernia 21, Appendicectomy 31, Hysterectomy 5, Wiring Fractures 2, Amputations 23, Trephining Skull 5, Gastrojejunostomy 3, Anastomosis and Re-section of Intestine 4, Excision of Spleen 3, and Cholecystotomy for Gall Stones 5.

Native Wards.

7. The greatest number of patients on any one day in the Native male-wards was 150 as against 161 in 1914.

The chief disease for which patients were admitted, together with a comparative table showing the number treated during the previous five years are shown below:—

| Disease. | 1915. | 1914. | 1913. | 1912. | 1911. | 1910. |
|------------------|-------|-------|-------|-------|-------|-------|
| Malarial Fever | 347 | 731 | 582 | 829 | 1,616 | 1,117 |
| Injuries | 961 | 950 | 944 | 1,017 | 865 | 889 |
| Venereal Disease | 275 | 152 | 223 | 271 | 278 | 371 |
| Dysentery | 54 | 101 | 54 | 124 | 149 | 119 |
| Enteric Fever | 41 | 57 | 57 | 37 | 76 | 42 |
| Beri-beri | 29 | 70 | 51 | 100 | 68 | 90 |
| Pneumonia | 50 | 55 | 49 | 46 | 33 | ... |
| Cholera | ... | * 3 | * 1 | * 5 | * 13 | ... |

Other diseases were:—Phthisis 94, Bronchitis 23, Ulcers 23, Diphtheria 2, Diseases of the Eye 53, Diseases of the Heart (Valvular) 14, Empyema 3, and Hernia 8 (2 Strangulated).

The chief causes of death were:—Beri-beri 12, Dysentery 13, Enteric 14, Malaria 29, Pneumonia 11, Nephritis 6, Strangulated Hernia 1, Phthisis 42, Intestinal Obstruction 2, Diseases of the Heart 5, Injuries 31, Ankylostomiasis 9, Bubonic Plague 2, and Erysipelas 1.

Native Police.

8. There were 595 admissions to Hospital as compared with 611 in 1914. They included 389 Indians, 169 Malays, 22 Chinese, and 15 Javanese.

The chief diseases under treatment were:—Malaria 256, Bronchitis 13, Venereal Diseases 46, Ulcers 8, Dysentery 9, Phthisis 8, Conjunctivitis 10, Diarrhoea 11 and No Discoverable Disease and Malingering 12.

* Transferred to Infectious Diseases Hospital.

There was one death, an Indian, from Phthisis.

9. *X-ray Apparatus*.—This was running fairly well during the year and a considerable amount of useful work was undertaken.

Maternity Wards.

10. The number of admissions shows a decrease as compared with the years 1913 and 1914, which may have been due to the opening of the new Free Maternity Hospital at Victoria Street:—

| | 1915. | 1914. | 1913. | 1912. | 1911. | 1910. |
|-------------------------|-------|-------|-------|-------|-------|-------|
| Number of admissions... | 275 | 343 | 327 | 263 | 233 | 199 |

Sixty patients were treated by their own Medical Attendants.

The nationalities of those admitted were as follows:—

| | | | | | | |
|---------------------|-----|-----|-----|-------|-----|-----|
| Of European descent | ... | ... | ... | ... | ... | 63 |
| Eurasians | ... | ... | ... | ... | ... | 6 |
| Chinese | ... | ... | ... | ... | ... | 155 |
| Tamils | ... | ... | ... | ... | ... | 19 |
| Japanese | ... | ... | ... | ... | ... | 5 |
| Sikhs | ... | ... | ... | ... | ... | 25 |
| Malays | ... | ... | ... | ... | ... | 2 |
| | | | | | | 275 |
| | | | | Total | ... | 275 |

The average weight of the European and Eurasian male infants was 7 lbs. 11 ozs., and of the female 7 lbs. 6 ozs. The average weight of the Native babies was, males 6 lbs. 8 ozs., females 5 lbs. 12 ozs.

There were 18 premature and still-births.

The more serious cases included Post Partum Hæmorrhage 1, Adherent Placenta 3, Vesicular Mole 1, Placenta Prævia 1, Chorea 1, Twins 1, and Shoulder Presentation 1. Forceps were applied in 9 cases.

There were 5 deaths due to—Beri-beri 1, Chorea and Valvular Disease of Heart 1, Vesicular Mole 1, Shock and prolonged labour 1, and Pneumonia 1.

FREE MATERNITY HOSPITAL, VICTORIA STREET.

11. During the year under report 174 women have been delivered of whom:—

| | | |
|-----|-----------|--------------|
| 108 | have been | Chinese |
| 34 | ” | ” Tamils |
| 12 | ” | ” Jewesses |
| 5 | ” | ” Malays |
| 4 | ” | ” Eurasians |
| 2 | ” | ” Portuguese |
| 2 | ” | ” English |
| 2 | ” | ” French |
| 2 | ” | ” Cingalese |
| 1 | ” | ” Japanese |

The complicated cases were 33, viz:—1 Transverse (simple), 2 Neglected Shoulder, 1 Complete Placenta Prævia, 2 Occipito Posterior persistent, 2 Lateral Placenta Prævia, 4 Breech, 2 Face with chin behind, 2 Twins, 11 Forceps, 1 Concealed Ante Partum Hæmorrhage, 1 Eclampsia, 2 Adherent Placenta, 1 Acute Sprue, and 1 Pneumonia.

There were three deaths:—1 Eclampsia, 1 Concealed Hæmorrhage, and 1 Exhaustion consequent upon labour whilst suffering from Sprue.

STAFF.

I was in charge of the Hospital throughout the year.

The Hospital has been unfortunate in losing the services of the two senior Surgeons, Dr. WHITTLE, who was killed on the first day of the Mutiny, and his successor, Dr. C. JOHNSON SMITH, who had to be invalided Home in November. The surgical work is being carried on by Drs. ADAMS and BURNE.

Two Assistant Surgeons were added to the staff during the year relieving the 3rd Medical Officer.

NURSING STAFF—NURSING SISTERS.

The Matron, Miss M. J. MCNAIR, went on 8 months' leave on 26th January. Since June last she has been seconded for one year for work under the War Office and is at present on active service. Miss A. A. HARDING of Penang acted as Matron until 4th December, 1915, when Miss B. CAMERON took up the acting appointment on Miss HARDING'S return to Penang.

There have been many changes among the Staff of Nursing Sisters and Probationers.

PRISON HOSPITAL.

REPORT BY DR. H. W. FURNIVALL, M.B., B.S., *Prison Surgeon.*

1. The sanitary condition of the Prison has been good, and the health of the prisoners satisfactory.

2. There were 1,032 admissions to hospital, which with 42 remaining at the end of 1914, gave a total treated of 1,074.

3. The average daily sick was 45·6.

4. There were no cases of Enteric Fever nor Beri-beri during the year.

5. *Europeans and Eurasians.*—Seven were admitted to hospital. One death occurred from Dysentery, the patient being a very old and debilitated man.

6. *Criminal Prison.*—The total population was 3,425 and the average daily number 761. Nine hundred and sixty-three were admitted to hospital with 22 deaths, giving a death-rate of 2·04 to total treated and 0·6 to total population.

The average daily sick was 43.

7. *Civil Prison.*—The total population was 2,905, and the average daily number 70. Twenty-one were admitted to hospital with an average daily sick 0·5. There were no deaths.

8. *House of Detention.*—The total population was 137 and the average daily number 12. There were 17 admissions to hospital with an average daily sick of 0·4. One died from Tuberculosis—the patient being in an advanced stage of the disease on admission to Prison.

9. The principal diseases treated were:—Dysentery, Colitis and Diarrhœa 305 cases with 11 deaths, Fevers including Malaria 108 with no deaths, Skin Diseases 135, Dyspepsia 77, and Minor Injuries 73.

10. Dysentery showed a large increase in the admissions to hospital, 105 against 51 in 1914. This is accounted for by an outbreak of the disease amongst prisoners from the Fifth Light Infantry, who had suffered from exposure prior to admission.

11. *Tuberculosis.*—Eleven cases were admitted with 3 deaths.

12. Table showing admissions and deaths of various classes of prisoners:—

| | Criminal. | | Civil. | | Vagrants. | |
|-----------------------------------|-----------|-------|--------|-------|-----------|-------|
| | 1914. | 1915. | 1914. | 1915. | 1914. | 1915. |
| A. Total population in Prison ... | 3,663 | 3,425 | 3,522 | 2,905 | 369 | 137 |
| B. Average daily number ... | 740 | 761 | 78 | 70 | 26 | 12 |
| C. Total treated in hospital ... | 954 | 1,004 | 34 | 21 | 98 | 18 |
| D. Percentage C to A ... | 26 | 29 | 0·9 | 0·7 | 26·5 | 13·1 |
| E. Total deaths in hospital ... | 20 | 24 | 5 | ... | 7 | 1 |

13. *Deaths*.—There were 25 in hospital, against 32 in the previous year. Five occurred within 24 hours of admission to hospital.

The grades affected were Criminals 22, Upper Grade 3, Middle Grade 12, Lower Grade 2, Simple Sentence 5, Vagrants 1, Military Prisoners 2 (1 from Compound Fracture of arm and leg caused by firearms and one from Dysentery). Besides these deaths in hospital one Lower Grade prisoner was found dead in his cell. He was an old feeble Malay from Kelantan. The cause of death was heart failure.

14. *Causes of Death*.—Dysentery 11, Cerebral Hæmorrhage 4, Tuberculosis 3, Apoplexy 1, Pneumonia 1, Heart Disease 1, Rupture of Aneurism of Aorta 1, Cirrhosis of Liver 1, Chronic Nephritis 1, Compound Fracture of arm and leg 1.

15. *Suicide*.—There was one which occurred in the Civil Prison. A remand prisoner was found hanging in his cell.

16. *Transfers to Lunatic Asylum*.—There were four (4) from the Criminal and 5 from the Civil Prison.

17. *Execution*.—There were three for murder, sentenced by the Court and 2 others were hanged by order of a Military Court Martial. Besides these, 42 Indians were shot by order of Military Court Martials.

18. The removal of the Prison night-soil by bullock carts was discontinued at the end of the year and the new method in connection with the Town Sewerage adopted, a marked improvement.

TAN TOCK SENG'S HOSPITAL, SINGAPORE.

REPORT BY DR. J. W. ADAMS, M.B., B.C., *Medical Officer*.

1. *Work done*:—

| | | | |
|-------------------------------------|-----|-----------|-------|
| Remained, 31st December, 1914 ... | ... | ... | 579 |
| Admitted, 1915 ... | ... | ... | 7,828 |
| | | Total ... | 8,407 |
| Discharged ... | ... | ... | 7,017 |
| Died ... | ... | ... | 863 |
| Remained on 31st December, 1915 ... | ... | ... | 527 |
| | | Total ... | 8,407 |

2. The average daily sick was 538.99 as compared with 652 in 1914.

3. The percentage of deaths to total cases treated was 10.26 per cent, against 10.45 per cent in 1914, 10.64 per cent in 1913, 12.26 per cent in 1912, 14.33 per cent in 1911 and 15.71 per cent in 1910.

4. There were 863 deaths during the year. Of these, the number dying within 24 hours of admission was 130. Deducting these, the death-rate is 8.85 per cent.

5. The average daily stay in hospital of those discharged was 10.34 days, of those dying 27.57 days and of those remaining 201.62 days. The corresponding figures for last year were of those discharged 11.91 days, of those dying 10.83 days and of those remaining 171.39 days.

The principal diseases treated were:—Malaria, Ankylostomiasis, Dysentery, Beri-beri, Venereal Diseases, Phthisis, Injuries, Abscess, Hepatic Cirrhosis, Pneumonia, Bronchitis and Enteric Fever. Details of some of these are given below.

6. *Malaria*.—One thousand seven hundred and seven cases of Malaria were treated during the year. Of these, 49 cases remain in hospital. There were 87 deaths giving a mortality of 5.09 per cent. Last year the death-rate from this disease was 4.79 per cent.

| <i>Types of Malaria.</i> | | <i>Total Cases Treated.</i> | <i>Deaths.</i> |
|--------------------------|-----|-----------------------------|----------------|
| Benign Tertian | ... | 266 | 3 |
| Quartan | ... | 146 | 4 |
| Malignant Tertian | ... | 548 | 46 |
| Chronic | ... | 263 | 18 |
| Mixed | ... | 41 | 2 |
| Unclassified | ... | 443 | 14 |
| Total | | 1,707 | 87 |

Systematic blood examinations were carried out in all cases. The following results were obtained:—

| | | | | |
|-------------------|-----|-----|-----|-------|
| Malignant Tertian | ... | ... | ... | 564 |
| Benign Tertian | ... | ... | ... | 273 |
| Quartan | ... | ... | ... | 158 |
| Mixed | ... | ... | ... | 48 |
| Negative | ... | ... | ... | 1,563 |
| Total | | | | 2,606 |

7. *Dysentery*.—Three hundred and fifty-nine cases of Dysentery have been under treatment during the year. Of these, 166 died giving a mortality of 46.23 per cent. Last year the mortality was 45.67 per cent.

8. *Beri-beri*.—Three hundred and fifty-six cases of Beri-beri were treated during the year. Twenty-two cases remain in hospital. There were 43 deaths giving a mortality of 12.07 per cent. Ninety-eight cases of chronic type were transferred to Pasir Panjang Hospital. The cases admitted during the year numbered 314. The following table shows their nationalities:—

| <i>Nationalities.</i> | | <i>Total.</i> | <i>Deaths.</i> |
|-----------------------|-----|---------------|----------------|
| Chinese | ... | 278 | 39 |
| Malays | ... | 4 | 3 |
| Japanese | ... | 29 | 1 |
| Indians | ... | 2 | ... |
| Others | ... | 1 | ... |
| Total | | 314 | 43 |

9. *Enteric Fever*.—Among 30 cases of Enteric Fever treated during the year, there were 19 deaths giving a mortality of 63.33 per cent. Last year the death-rate was 65.11 per cent.

10. *Veneral diseases* were as follows:—

| | | <i>Cases.</i> | <i>Deaths.</i> |
|-----------------------|-----|---------------|----------------|
| Syphilis, Primary | ... | 177 | ... |
| „ Secondary | ... | 839 | 12 |
| „ Tertiary | ... | 106 | 4 |
| Gonorrhoea | ... | 237 | ... |
| Gonorrhoeal Arthritis | ... | 27 | ... |
| Syphilitic „ | ... | 46 | ... |
| Total | | 1,432 | 16 |

11. *Helminthiasis*.—One hundred and ninety-two cases of Ankylostomiasis were treated during the year. Of these, 13 remain in hospital. There were 17 deaths giving a mortality of 8·85 per cent. The death-rate for last year was 11·85 per cent.

Two cases of Schistosomiasis Japonicum were admitted. Both of them died.

One thousand three hundred and sixty-one stools were examined during the year with the following results :—

| | | | | | |
|-----------------------------------|-----|-------|-----|-----|-------|
| Ankylostomiasis ova | ... | ... | ... | ... | 374 |
| Round-worm | „ | ... | ... | ... | 67 |
| Whip | „ | „ | ... | ... | 67 |
| Round and Whip worm ova | ... | ... | ... | ... | 64 |
| Ankylostomiasis and Whip worm ova | ... | ... | ... | ... | 72 |
| „ | „ | Round | „ | „ | 25 |
| Negative | ... | ... | ... | ... | 692 |
| Total | | | | | 1,361 |

12. *Tuberculosis, General and Pulmonary*.—Out of 356 cases of Tuberculosis treated during the year, there were 314 Pulmonary and 42 General and Glandular. One hundred and seventy-one cases died giving a mortality of 48·03 per cent. Last year the mortality was 55·44 per cent.

13. *Ulcers*.—Nine hundred and fourteen cases of Ulcers were treated. Of these, 68 cases remain in hospital.

14. *Cholera*.—There was only one case of Cholera.

15. *Medico-Legal*.—Forty-eight dead bodies were sent by the Coroner for post-mortem examination. Four hundred and thirty-two cases were sent by the Police for treatment.

16. *European Ward*.—The number treated in the European Ward was 666. Their nationalities were as follows :—

| <i>Nationality.</i> | <i>Cases.</i> |
|---------------------|---------------|
| Europeans | 104 |
| Eurasians | 89 |
| Others | 473 |
| Total | 666 |

17. *Japanese*.—Three hundred and eighty-one Japanese patients were admitted during the year. Sixty-five of them stated that they came from Johore. There were 9 deaths among them showing a death-rate of 2·36 per cent. The mortality for last year was 3·22 per cent.

18. *Operations*.—Eight hundred and sixty-seven operations were performed during the year.

The New Operating Theatre was completed in July and filled a long-felt want.

The Old Theatre is now being used for surgical dressings and minor operations.

19. Gas was installed early in the year in certain parts of the hospital, viz.: Wards 4, 6, 7, 14, 15, 17, 18 and the Dispensary, thus rendering the examination of cases at night much easier than formerly. As the main supply pipe has now been laid in the hospital, it is hoped that a general installation of gas throughout the hospital will be carried out shortly.

Four additional Dressers' Quarters, one Clinical Laboratory and extension to the Kitchen were completed during the year.

LEPER ASYLUM, SINGAPORE.

1. *Male Camp*:—

| | | | |
|--------------------------------------|-----|-----------|-----|
| Remained on 31st December, 1914 ... | ... | ... | 17 |
| Admitted 1915 ... | ... | ... | 48 |
| | | Total ... | 65 |
| <hr/> | | | |
| Transferred to Pulau Jerajak ... | ... | ... | 39 |
| Discharged ... | ... | ... | 5 |
| Absconded ... | ... | ... | ... |
| Died ... | ... | ... | 6 |
| Remaining on 31st December, 1915 ... | ... | ... | 15 |
| | | Total ... | 65 |

2. *Female Camp*:—

| | | | |
|--------------------------------------|-----|-----------|----|
| Remained on 31st December, 1914 ... | ... | ... | 35 |
| Admitted ... | ... | ... | 6 |
| | | Total ... | 41 |
| <hr/> | | | |
| Discharged ... | ... | ... | 1 |
| Absconded ... | ... | ... | 1 |
| Died ... | ... | ... | 1 |
| Remaining on 31st December, 1915 ... | ... | ... | 38 |
| | | Total ... | 41 |

Weekly injections of Chaulmoogra Oil made up according to Dr. HEISER'S formula were given during the greater part of the year in selected cases. Generally speaking, some improvement was noticed.

LUNATIC ASYLUM.

REPORT BY DR. H. J. GIBBS, M.R.C.S., L.R.C.P., *Medical Superintendent*.

There remained on December 31st, 1914, 355 males and 87 females; 211 males and 44 females were admitted during the year, making a total treated of 697.

Of the above admissions 22 males and 6 females had been previously under treatment in this Asylum.

Of the total treated:—Eighty-one males and 19 females were discharged recovered; 11 males and 4 females relieved; 120 males and 39 females not improved; 5 males absconded; and 84 males and 10 females died.

There remained on 31st December, 1915, 265 males and 59 females.

The average daily number resident was 441; 355 males and 86 females.

The maximum and minimum daily numbers were 467 and 313 respectively.

The nationalities of the 324 patients remaining on 31st December, 1915, were:—

| | | | <i>Males.</i> | <i>Females.</i> |
|---------------------|-----|-----|---------------|-----------------|
| British ... | ... | ... | 8 | 2 |
| Other Europeans ... | ... | ... | 3 | 1 |
| Eurasians ... | ... | ... | 10 | 5 |
| Japanese ... | ... | ... | 1 | 2 |
| Chinese ... | ... | ... | 184 | 35 |
| Tamils ... | ... | ... | 23 | 5 |
| Malays ... | ... | ... | 30 | 9 |
| Other Asiatics ... | ... | ... | 6 | — |

The physical condition of the admissions on admission is shown as:—

| | | | <i>Males.</i> | <i>Females.</i> |
|------------------|-----|-----|---------------|-----------------|
| | | | — | — |
| Good | ... | ... | 70 | 9 |
| Fair | ... | ... | 66 | 15 |
| Impaired | ... | ... | 52 | 13 |
| Greatly impaired | ... | ... | 23 | 7 |

Thirteen of the admissions died within a month of their admission; one, with advanced pulmonary tuberculosis and pneumonia, dying within 24 hours.

As to the causes assigned for the mental breakdown in the admissions, venereal diseases head the list with 64; of these, 51 were males and 13 females.

This indicates a very high percentage of syphilis and considerably higher than the British Asylums' return.

Dr. KEITH very kindly undertook the examination of the blood, for a Wassermann reaction, of 189 male and 39 female patients with the following results:—

| | | | <i>Males.</i> | <i>Females.</i> |
|------------------------|-----|-----|---------------|-----------------|
| | | | — | — |
| Positive | ... | ... | 80 | 21 |
| Partial | ... | ... | 3 | 1 |
| Very slightly positive | ... | ... | 1 | ... |
| Slight trace | ... | ... | 1 | ... |
| Negative | ... | ... | 104 | 17 |

Dr. KEITH explains the terms, "partial," "very slightly positive" and "slight trace" as either a faint taint of syphilis, or, an almost complete eradication or elimination of the Spirochetæ by treatment. Some of the "positive" cases deny ever having had syphilis nor could any signs or history of previous or hereditary syphilis be obtained; on the other hand, three or four well marked syphilitic cases who had been energetically treated with "914" and mercury internally and by inunction gave definite negative results.

Alcoholic intemperance was assigned as a cause for 46 male admissions and malaria for 21 cases.

Eight of the admissions were diagnosed as suffering from general paralysis of the insane, the majority of these being Chinese.

Discharges.—Owing to the over-crowding of the Asylum, arrangements were made to transfer one hundred males and 37 females to wards built for the Colony at the Federated Malay States Central Asylum, Tanjong Rambutan, Perak.

They were removed in 2 batches, the first consisting of 21 females on the 13th November and the second consisting of 100 males and 16 females on the 1st December. Other 66 males are to be transferred early in January.

Eighty-one males and 19 females were discharged as "recovered." The recovery rate was 39·22 per cent on the admissions.

Criminal Population.—There remained on 31st December, 1914, 19 criminal lunatics, and 8 lunatic criminals; 7 criminal lunatics and 3 lunatic criminals were admitted giving a total treated of 37 criminal lunatics and lunatic criminals: of these, the sentence of 2 lunatic criminals expired, one recovered and was returned to the prison to complete his sentence, and two criminal lunatics died. There remained on 31st December, 1915, 24 criminal lunatics and 8 lunatic criminals.

Deaths.—The death-rate on the average daily number was an improvement on that for 1914, being 21·31 against 27·53; that for the males being 23·66 and 11·63 for females. Had it not been for the large number of transfers at the end of the year the death-rate would have been more favourable.

Both dysentery and tubercle have been prevalent and have taken heavy toll, the former accounting for 19 and the latter for 36 deaths. Seven deaths occurred from chronic interstitial nephritis and five from general paralysis.

No case of zymotic disease occurred during the year.

Casualties.—The majority of these were of a trifling nature. One death resulted from a ruptured spleen following a blow received on the abdomen (from a falling dried coconut fruit stem). Two fractures occurred, one a fracture of neck of the femur from an accidental fall in a phthical patient and the other a fracture of the right clavicle from a blow by another patient.

Industries.—Seven thousand yards of plain cloth were woven by the inmates from which 82 European jackets, 53 pairs of European trousers, 1,526 Native bajus, 1,317 pairs of Native trousers, 267 sarongs, 36 dusters, 42 pillow-cases, 3 chemises and 2 kimonos were made.

In addition 59 strong rugs and 13 combination suits were made from sail canvas purchased.

The average annual cost per head, per patient, on the average daily number for 1915 was \$144.10.

A revenue of \$7,013.14 was derived from paying patients; sales of stores provided \$21.69.

Alterations to Buildings.—Very considerable improvement has been afforded to the ventilation of the two worksheds, the refractory block and the attendants' rooms at Sepoy Lines by breaking down masonry and substituting expanded metal.

One of the above worksheds is now used as a dormitory and living-room for dirty and troublesome first-class patients affording relief to the previously overcrowded European cottage.

General.—Clinical classes in psychological medicine for students of the Medical School were held during the last three months of the year.

During my absence on leave in England Dr. KERR SIMPSON acted as Medical Superintendent until the 14th April, 1915.

Mr. DE SOUZA, Mrs. GUNN, LIM PANG KIAH and LOI CHENG were, respectively, Assistant Surgeon, Matron, Steward and Clerk. Their work has been satisfactory.

European Attendant JAMES KERR returned from leave on 11th January, 1915, and European Attendant JOHNSON left for England on 9 months' leave on 1st June, 1915.

TABLE I.
LUNATIC ASYLUM.

Table showing the Admissions, Discharges and Deaths during the Year 1915.

| — | Male. | Female. | Total. | Male. | Female. | Total. |
|---|-------|---------|--------|-------|---------|--------|
| In the Asylum on 1st January, 1915 | ... | ... | ... | 355 | 87 | 442 |
| Cases admitted :— | | | | | | |
| First Admissions | ... | ... | ... | 189 | 38 | 227 |
| Not First Admissions | ... | ... | ... | 22 | 6 | 28 |
| Total cases under care during the year | ... | ... | ... | 566 | 131 | 697 |
| Cases Discharged :— | | | | | | |
| Recovered | 81 | 19 | 100 | ... | ... | ... |
| Relieved | 11 | 4 | 15 | ... | ... | ... |
| Not Relieved and Transferred | 120 | 39 | 159 | ... | ... | ... |
| Absconded | 5 | ... | 5 | ... | ... | ... |
| Died | 84 | 10 | 94 | ... | ... | ... |
| Total cases discharged and died during the year | ... | ... | ... | 301 | 72 | 373 |
| Remaining in the Asylum on 31st December, 1915 | ... | ... | ... | 265 | 59 | 324 |
| Average number resident during the year | ... | ... | ... | 355 | 86 | 441 |

TABLE II.
LUNATIC ASYLUM.

Table showing the Admissions, Re-admissions, Discharges and Deaths from 31st December, 1888, to 31st December, 1915.

| | Male. | Female. | Total. | Male. | Female. | Total. |
|--|-------|---------|--------|-------|---------|--------|
| Remaining on the 31st December, 1888 | ... | ... | ... | 176 | 32 | 208 |
| Persons admitted during the period | ... | ... | ... | 4,364 | 761 | 5,125 |
| Re-admissions | ... | ... | ... | 458 | 100 | 558 |
| Total cases treated | ... | ... | ... | 4,998 | 893 | 5,891 |
| Discharged Cases :— | | | | | | |
| Recovered | 1,988 | 294 | 2,282 | ... | ... | ... |
| Relieved | 439 | 113 | 552 | ... | ... | ... |
| Not improved | 278 | 95 | 373 | ... | ... | ... |
| Absconded | 161 | 23 | 184 | ... | ... | ... |
| Died | 1,867 | 309 | 2,176 | ... | ... | ... |
| Total cases discharged and died since 31st December, 1888 | ... | ... | ... | 4,733 | 834 | 5,567 |
| Remaining in the Asylum on 31st December, 1915 | ... | ... | ... | 265 | 59 | 324 |

TABLE III.
LUNATIC ASYLUM.
Table showing the Admissions, Discharges and Deaths, with the Mean Annual Mortality and Proportion of Recoveries per cent on the Admissions for the Years 1886 to 1915 inclusive.

| YEAR. | Admitted. | | Discharged. | | | | | | Absconded. | | Died. | | Remaining on 31st December of each Year. | | Average Number Resident. | | Percentage of Recoveries on Admissions. | | Percentage of Deaths on the Average Number Resident. | | | | |
|-------|-----------|---------|-------------|-----------|---------------|-------|---------|--------|------------|---------|--------|-------|--|--------|--------------------------|---------|---|---------|--|---------|--------|-----|-----|
| | Male. | Female. | Recovered. | Relieved. | Not Improved. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Male. | Female. | Male. | Female. | Total. | | |
| 1886 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 1887 | 173 | 17 | 190 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 1888 | 153 | 23 | 176 | 35 | 2 | 1 | 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 1889 | 186 | 24 | 210 | 67 | 6 | 73 | 13 | 4 | 17 | 7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 1890 | 224 | 30 | 254 | 87 | 7 | 94 | 23 | 1 | 24 | 4 | 1 | 5 | 5 | 1 | 6 | 145 | 11 | 156 | 157 | 48 | 205 | 186 | |
| 1891 | 162 | 30 | 192 | 61 | 13 | 74 | 12 | 3 | 15 | 3 | 2 | 5 | 6 | 1 | 7 | 87 | 11 | 87 | 101 | 49 | 210 | 153 | |
| 1892 | 158 | 29 | 187 | 71 | 14 | 85 | 15 | 4 | 19 | 6 | 1 | 7 | 5 | 2 | 7 | 43 | 14 | 57 | 179 | 43 | 222 | 170 | |
| 1893 | 184 | 33 | 217 | 65 | 7 | 72 | 8 | 5 | 13 | 6 | 5 | 11 | 1 | 1 | 2 | 48 | 16 | 64 | 239 | 48 | 287 | 244 | |
| 1894 | 169 | 29 | 198 | 69 | 11 | 80 | 21 | 4 | 25 | 4 | 3 | 7 | 3 | ... | 3 | 73 | 16 | 89 | 239 | 48 | 287 | 244 | |
| 1895 | 173 | 34 | 207 | 70 | 9 | 79 | 45 | 10 | 55 | 9 | 3 | 12 | 9 | 1 | 10 | 99 | 13 | 112 | 186 | 46 | 226 | 206 | |
| 1896 | 202 | 28 | 230 | 86 | 10 | 102 | 7 | 2 | 9 | 2 | 1 | 3 | 3 | ... | 3 | 79 | 6 | 85 | 205 | 49 | 254 | 183 | |
| 1897 | 122 | 26 | 148 | 62 | 9 | 71 | 18 | 7 | 25 | 2 | ... | 2 | 2 | ... | 2 | 72 | 9 | 81 | 171 | 50 | 221 | 181 | |
| 1898 | 137 | 24 | 161 | 61 | 7 | 68 | 16 | 3 | 19 | 17 | 6 | 23 | 4 | ... | 4 | 85 | 10 | 95 | 125 | 48 | 173 | 156 | |
| 1899 | 130 | 32 | 162 | 51 | 12 | 63 | 14 | 3 | 17 | 4 | 1 | 5 | 7 | ... | 7 | 50 | 9 | 59 | 123 | 55 | 178 | 151 | |
| 1900 | 157 | 30 | 187 | 54 | 5 | 59 | 9 | 1 | 10 | 2 | 2 | 4 | 4 | ... | 4 | 93 | 30 | 123 | 118 | 47 | 165 | 128 | |
| 1901 | 154 | 21 | 175 | 74 | 10 | 84 | 18 | 2 | 20 | 1 | 1 | 2 | 6 | ... | 6 | 46 | 10 | 56 | 127 | 45 | 172 | 118 | |
| 1902 | 143 | 16 | 159 | 82 | 8 | 90 | 11 | 1 | 12 | 1 | 1 | 2 | 2 | ... | 2 | 38 | 4 | 42 | 133 | 46 | 179 | 130 | |
| 1903 | 191 | 30 | 221 | 70 | 7 | 77 | 15 | 2 | 17 | 10 | 1 | 11 | 6 | ... | 6 | 38 | 4 | 42 | 133 | 46 | 179 | 130 | |
| 1904 | 223 | 31 | 254 | 90 | 14 | 104 | 20 | 3 | 23 | 9 | 2 | 11 | 3 | ... | 3 | 44 | 11 | 55 | 179 | 52 | 231 | 160 | |
| 1905 | 200 | 28 | 228 | 101 | 5 | 106 | 22 | 9 | 31 | 8 | 7 | 15 | 12 | ... | 12 | 54 | 13 | 67 | 235 | 43 | 278 | 239 | |
| 1906 | 199 | 32 | 231 | 85 | 11 | 96 | 28 | 10 | 38 | 4 | 1 | 5 | 8 | ... | 8 | 71 | 4 | 75 | 238 | 48 | 286 | 245 | |
| 1907 | 163 | 34 | 197 | 80 | 8 | 88 | 22 | 8 | 30 | 4 | ... | 4 | 7 | ... | 7 | 47 | 10 | 57 | 241 | 55 | 296 | 243 | |
| 1908 | 175 | 37 | 212 | 77 | 16 | 93 | 17 | 5 | 22 | 4 | ... | 4 | 6 | ... | 6 | 45 | 20 | 65 | 279 | 57 | 336 | 265 | |
| 1909 | 174 | 46 | 220 | 77 | 16 | 93 | 17 | 5 | 22 | 4 | ... | 4 | 6 | ... | 6 | 45 | 20 | 65 | 279 | 57 | 336 | 265 | |
| 1910 | 182 | 46 | 228 | 79 | 14 | 93 | 14 | 6 | 22 | 4 | ... | 4 | 6 | ... | 6 | 45 | 20 | 65 | 279 | 57 | 336 | 265 | |
| 1911 | 190 | 30 | 220 | 70 | 11 | 81 | 7 | 2 | 9 | 3 | 2 | 5 | 6 | ... | 6 | 45 | 20 | 65 | 279 | 57 | 336 | 265 | |
| 1912 | 205 | 33 | 238 | 75 | 17 | 92 | 8 | 1 | 9 | ... | 1 | 7 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1913 | 209 | 48 | 257 | 87 | 17 | 104 | 9 | 2 | 11 | 9 | 5 | 14 | 19 | ... | 19 | 55 | 9 | 64 | 387 | 87 | 474 | 377 | |
| 1914 | 199 | 36 | 235 | 76 | 14 | 90 | 13 | 3 | 16 | 32 | 4 | 36 | 5 | ... | 5 | 105 | 15 | 120 | 355 | 87 | 442 | 385 | |
| 1915 | 211 | 44 | 255 | 81 | 19 | 100 | 11 | 4 | 15 | 120 | 39 | 159 | 5 | ... | 5 | 84 | 10 | 94 | 265 | 59 | 324 | 355 | |

TABLE IV.
LUNATIC ASYLUM.

Table showing the History of the Annual Admissions since 1889, with the Discharges and Deaths, and the Numbers of each Year Remaining on 31st December of the Year reported on.

| YEAR. | Admitted. | | | Of each Year's Admissions, Discharged and Died in 1915. | | | | | | Total Discharged and Died of each Year's Admissions to 31st December, 1915. | | | | | | Remaining of each Year's Admissions, 31st December, 1915. | |
|---------------|------------|---------|----------------|---|---------|-----------|---------|---------------|---------|---|---------|-------|---------|--------|--------|---|---------|
| | New Cases. | | Re-admissions. | Recovered. | | Relieved. | | Not Improved. | | Absconded. | | Died. | | Total. | Total. | Male. | Female. |
| | Male. | Female. | | Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. | | | | |
| Prior to 1889 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1889 | 197 | 26 | 27 | 4 | 254 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1890 | 137 | 25 | 25 | 5 | 192 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1891 | 144 | 26 | 14 | 3 | 187 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1892 | 170 | 27 | 14 | 6 | 217 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1893 | 157 | 24 | 12 | 5 | 198 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1894 | 156 | 30 | 17 | 4 | 207 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1895 | 186 | 21 | 16 | 7 | 230 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1896 | 98 | 21 | 24 | 5 | 148 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1897 | 129 | 21 | 8 | 3 | 161 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1898 | 118 | 30 | 12 | 2 | 162 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1899 | 143 | 29 | 14 | 1 | 187 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1900 | 137 | 21 | 17 | ... | 175 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1901 | 129 | 14 | 14 | 3 | 159 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1902 | 176 | 27 | 15 | 3 | 221 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1903 | 201 | 24 | 22 | 7 | 254 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1904 | 177 | 26 | 23 | 2 | 228 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1905 | 176 | 30 | 23 | 3 | 231 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1906 | 148 | 29 | 15 | 5 | 197 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1907 | 167 | 34 | 8 | 3 | 212 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1908 | 154 | 43 | 20 | 3 | 220 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1909 | 159 | 40 | 23 | 6 | 228 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1910 | 177 | 29 | 13 | 1 | 220 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1911 | 192 | 30 | 13 | 3 | 238 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1912 | 189 | 42 | 20 | 6 | 257 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1913 | 180 | 28 | 19 | 8 | 235 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1914 | 189 | 38 | 22 | 6 | 255 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1915 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

TABLE VI.

LUNATIC ASYLUM.

Table showing the Length of Residence of those Discharged, Recovered and of those who Died, during the Year 1915.

| Length of Residence. | Recovered. | | | Died. | | |
|---------------------------------|------------|---------|--------|-------|---------|--------|
| | Male. | Female. | Total. | Male. | Female. | Total. |
| Under one month | 9 | ... | 9 | 11 | 2 | 13 |
| From one to three months | 20 | 5 | 25 | 11 | 1 | 12 |
| " three to six months | 17 | 4 | 21 | 14 | 1 | 15 |
| " six to nine months | 13 | 5 | 18 | 5 | 1 | 6 |
| " nine to twelve months | 8 | 1 | 9 | 5 | 3 | 8 |
| " one to two years | 10 | 3 | 13 | 14 | ... | 14 |
| " two to three years | 2 | 1 | 3 | 7 | ... | 7 |
| " three to five years | 2 | ... | 2 | 8 | ... | 8 |
| " five to seven years | ... | ... | ... | 3 | 2 | 5 |
| " seven to ten years | ... | ... | ... | 3 | ... | 3 |
| " ten to fifteen years | ... | ... | ... | 3 | ... | 3 |
| TOTAL | 81 | 19 | 100 | 84 | 10 | 94 |

TABLE X-a.
LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1915.

| CAUSES. | ADMISSIONS. | | | | | | | | | | | |
|--|--|--------|-------|--------------------|--------|-------|-------------------------------------|--------|-------|---------|--------|--|
| | Number of Instances in which a Cause was Assigned. | | | | | | | | | | | |
| | Admissions:—Male 211. Female 44. Total 255. | | | | | | | | | | | |
| | As Predisposing Cause. | | | As Exciting Cause. | | | As Predisposing or Exciting Cause.* | | | Total † | | |
| Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | |
| <i>Moral.</i> | | | | | | | | | | | | |
| Domestic Troubles (including loss of relatives and friends) | ... | ... | 3 | 3 | 6 | ... | ... | ... | 3 | 3 | 6 | |
| Adverse Circumstances (including business anxieties and pecuniary difficulties) | ... | ... | 1 | 2 | 3 | ... | ... | ... | 1 | 2 | 3 | |
| Mental Anxiety and Worry and Overwork | ... | ... | 4 | 1 | 5 | ... | ... | ... | 4 | 1 | 5 | |
| Religious Excitement | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Love Affairs (including seduction) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Fright and Nervous Shock | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| <i>Physical.</i> | | | | | | | | | | | | |
| Intemperance in Drink | ... | ... | 46 | ... | 46 | ... | ... | ... | 46 | ... | 46 | |
| Venereal Disease | ... | ... | ... | ... | ... | 51 | 13 | 64 | 51 | 13 | 64 | |
| Self-abuse | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Sunstroke | ... | ... | 1 | ... | 1 | ... | ... | ... | 1 | ... | 1 | |
| Accident or Injury | ... | ... | 3 | ... | 3 | ... | ... | ... | 3 | ... | 3 | |
| Pregnancy | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | 1 | 1 | |
| Parturition and the Puerperal State | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Uterine and Ovarian Disorders | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | 1 | 1 | |
| Lactation | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Puberty | ... | ... | 2 | ... | 2 | ... | ... | ... | 2 | ... | 2 | |
| Epilepsy | ... | ... | ... | ... | ... | 6 | ... | 6 | 6 | ... | 6 | |
| Privation and Starvation | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Heart Disease and Cardio-Vascular Changes | 11 | 3 | 14 | ... | ... | ... | ... | ... | 11 | 3 | 14 | |
| Phthisis | ... | ... | ... | ... | ... | 16 | 4 | 20 | 16 | 4 | 20 | |
| Malarial Fever | ... | ... | 20 | 1 | 21 | ... | ... | ... | 20 | 1 | 21 | |
| Typhoid Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Other Bodily Diseases or Disorders | 7 | 3 | 10 | 1 | 1 | ... | ... | ... | 8 | 3 | 11 | |
| Previous Attacks | 32 | 7 | 39 | ... | ... | ... | ... | ... | 32 | 7 | 39 | |
| Old Age | 18 | 4 | 22 | ... | ... | ... | ... | ... | 18 | 4 | 22 | |
| Morphia Habit (Opium) | ... | ... | 2 | ... | 2 | ... | ... | ... | 2 | ... | 2 | |
| Hereditary Influences ascertained | 6 | 1 | 7 | ... | ... | ... | ... | ... | 6 | 1 | 7 | |
| Congenital Defect | 19 | 4 | 23 | ... | ... | ... | ... | ... | 19 | 4 | 23 | |
| Indian Hemp Smoking | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Unknown | ... | ... | ... | ... | ... | ... | ... | ... | 35 | 6 | 41 | |

* Where these could not be distinguished. † Some of the admissions are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the admissions.

TABLE X-b.

LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1915.—Continued.

| CAUSES. | DISCHARGES. | | | | | | | | | | | |
|--|--|--------|-------|--------------------|--------|-------|-------------------------------------|--------|-------|----------|--------|-----|
| | Number of Instances in which a Cause was Assigned. | | | | | | | | | | | |
| | Discharges :—Male 217. Female 62. Total 279. | | | | | | | | | | | |
| | As Predisposing Cause. | | | As Exciting Cause. | | | As Predisposing or Exciting Cause.* | | | Total. † | | |
| Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | |
| <i>Moral.</i> | | | | | | | | | | | | |
| Domestic Troubles (including loss of relatives and friends) | ... | ... | ... | 5 | 1 | 6 | ... | ... | ... | 5 | 1 | 6 |
| Adverse Circumstances (including business anxieties and pecuniary difficulties) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Mental Anxiety and Worry and Overwork | ... | ... | ... | 3 | 1 | 4 | ... | ... | ... | 3 | 1 | 4 |
| Religious Excitement | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Love Affairs (including seduction) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Fright and Nervous Shock | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| <i>Physical.</i> | | | | | | | | | | | | |
| Intemperance in Drink | ... | ... | ... | 42 | ... | 42 | ... | ... | ... | 42 | ... | 42 |
| Venereal Disease | ... | ... | ... | ... | ... | ... | 38 | 8 | 46 | 38 | 8 | 46 |
| Self-abuse | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Sunstroke | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | 1 | ... | 1 |
| Accident or Injury | ... | ... | ... | 2 | ... | 2 | ... | ... | ... | 2 | ... | 2 |
| Pregnancy | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Parturition and the Puerperal State | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | 1 | 1 |
| Uterine and Ovarian Disorders | ... | ... | ... | ... | 2 | 2 | ... | ... | ... | ... | 2 | 2 |
| Lactation | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | 1 | 1 |
| Puberty | ... | ... | ... | 3 | 3 | 6 | ... | ... | ... | 3 | 3 | 6 |
| Epilepsy | ... | ... | ... | ... | ... | ... | 3 | 2 | 5 | 3 | 2 | 5 |
| Privation and Starvation | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | 1 | ... | 1 |
| Heart Disease | 8 | 3 | 11 | ... | ... | ... | ... | ... | ... | 8 | 3 | 11 |
| Phthisis | ... | ... | ... | 16 | 6 | 22 | ... | ... | ... | 16 | 6 | 22 |
| Malarial Fever | ... | ... | ... | 27 | 3 | 30 | ... | ... | ... | 27 | 3 | 30 |
| Typhoid Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other Bodily Diseases or Disorders | ... | ... | ... | ... | ... | ... | 16 | 5 | 21 | 16 | 5 | 21 |
| Previous Attacks | 22 | 6 | 28 | ... | ... | ... | ... | ... | ... | 22 | 6 | 28 |
| Old Age | 7 | 8 | 15 | ... | ... | ... | ... | ... | ... | 7 | 8 | 15 |
| Opium | ... | ... | ... | 4 | ... | 4 | ... | ... | ... | 4 | ... | 4 |
| Hereditary Influences ascertained | 6 | ... | 6 | ... | ... | ... | ... | ... | ... | 6 | ... | 6 |
| Congenital Defect | 13 | ... | 13 | ... | ... | ... | ... | ... | ... | 13 | ... | 13 |
| Indian Hemp Smoking | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Unknown | ... | ... | ... | ... | ... | ... | ... | ... | 78 | 20 | 98 | |

* Where these could not be distinguished. † Some of the discharges are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the discharges.

TABLE X-c.

LUNATIC ASYLUM.

Table showing the Probable Causes, Apparent or Assigned, of the Disorders in the Admissions, Discharges and Deaths of the Year 1915.—Continued.

| CAUSES. | DEATHS. | | | | | | | | | | | |
|--|--|--------|-------|--------------------|--------|-------|-------------------------------------|--------|-------|----------|--------|-----|
| | Number of Instances in which a Cause was Assigned. | | | | | | | | | | | |
| | Deaths:—Male 84. | | | Female 10. | | | Total 94. | | | | | |
| | As Predisposing Cause. | | | As Exciting Cause. | | | As Predisposing or Exciting Cause.* | | | Total. † | | |
| Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | |
| <i>Moral.</i> | | | | | | | | | | | | |
| Domestic Troubles (including loss of relatives and friends) | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | 1 | ... | 1 |
| Adverse Circumstances (including business anxieties and pecuniary difficulties) | ... | ... | ... | 2 | ... | 2 | ... | ... | ... | 2 | ... | 2 |
| Mental Anxiety and Worry and Overwork | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | 1 | ... | 1 |
| Religious Excitement | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Love Affairs (including seduction) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Fright and Nervous Shock | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| <i>Physical.</i> | | | | | | | | | | | | |
| Intemperance in Drink | ... | ... | ... | 11 | ... | 11 | ... | ... | ... | 11 | ... | 11 |
| Veneral Disease | ... | ... | ... | ... | ... | ... | 19 | 4 | 23 | 19 | 4 | 23 |
| Self-abuse | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Sunstroke | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Accident or Injury | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Pregnancy | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Parturition and the Puerperal State | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Uterine and Ovarian Disorders | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Lactation | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Puberty | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Epilepsy | ... | ... | ... | ... | ... | ... | 2 | ... | 2 | 2 | ... | 2 |
| Privation and Starvation | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Heart Disease and Cardio-Vascular Changes | ... | ... | ... | ... | ... | ... | 14 | 1 | 15 | 14 | 1 | 15 |
| Phthisis | ... | ... | ... | ... | ... | ... | 32 | 2 | 34 | 32 | 2 | 34 |
| Malarial Fever | ... | ... | ... | 3 | ... | 3 | ... | ... | ... | 3 | ... | 3 |
| Typhoid Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other Bodily Diseases or Disorders | 5 | 1 | 6 | ... | ... | ... | ... | ... | ... | 5 | 1 | 6 |
| Previous Attacks | 4 | ... | 4 | ... | ... | ... | ... | ... | ... | 4 | ... | 4 |
| Old Age | 8 | 2 | 10 | ... | ... | ... | ... | ... | ... | 8 | 2 | 10 |
| Opium | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | 1 | ... | 1 |
| Hereditary Influences ascertained | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Congenital Defect/ | 4 | 1 | 5 | ... | ... | ... | ... | ... | ... | 4 | 1 | 5 |
| Indian Hemp Smoking | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Unknown | ... | ... | ... | ... | ... | ... | ... | ... | ... | 6 | 1 | 7 |

* Where these could not be distinguished. † Some of the deaths are credited with more than one cause; therefore, the sum of the "known" and "unknown" causes exceeds that of the deaths.

TABLE XI.
LUNATIC ASYLUM.

Showing the Form of Mental Disorder on Admissions and Deaths of the Year 1915, and the Form of Mental Disorder of the Inmates on 31st December, 1915.

| FORM OF MENTAL DISORDER. | Admissions. | | | Recoveries. | | | Deaths. | | | Remaining in Asylum, Form of Mental Disorder, 31st December, 1915. | | |
|--|-------------|-----------|------------|-------------|-----------|------------|-----------|-----------|-----------|--|-----------|------------|
| | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. | Male. | Female. | Total. |
| Congenital or Infantile Deficiency with Epilepsy | 2 | ... | 2 | ... | ... | ... | ... | ... | ... | 2 | ... | 2 |
| Do. without Epilepsy | 8 | 1 | 9 | ... | ... | ... | ... | 1 | 4 | 17 | ... | 19 |
| Epilepsy acquired | 5 | ... | 5 | 1 | ... | 1 | 2 | ... | 2 | 13 | 3 | 16 |
| General Paralysis of Insane | 7 | 1 | 8 | ... | ... | ... | 2 | 3 | 5 | 6 | 1 | 7 |
| Mania, Acute | 100 | 24 | 124 | 36 | 12 | 48 | 27 | 2 | 29 | 68 | 17 | 85 |
| Do. Acute, Delirious | 1 | 2 | 3 | ... | ... | ... | 1 | ... | 1 | ... | 1 | 1 |
| Do. Chronic | 1 | 1 | 2 | ... | ... | ... | 3 | ... | 3 | 9 | 2 | 11 |
| Do. Recurrent | 4 | 1 | 5 | 1 | 1 | 2 | 1 | ... | 1 | 3 | 3 | 6 |
| Do. A Potu | 30 | ... | 30 | 23 | ... | 23 | 7 | ... | 7 | 11 | ... | 11 |
| Do. Puerperal | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 |
| Do. Senile | 2 | 2 | 4 | ... | 1 | 1 | 1 | ... | 1 | ... | 1 | 2 |
| Melancholia, Acute | 17 | 5 | 22 | 7 | 2 | 9 | 5 | 1 | 6 | 19 | 4 | 23 |
| Do. Chronic | ... | ... | ... | 1 | ... | 1 | 3 | ... | 3 | 4 | 2 | 6 |
| Do. Recurrent | 2 | ... | 2 | ... | ... | ... | ... | ... | ... | 1 | ... | 1 |
| Do. A Potu | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Do. Puerperal | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Do. Senile | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Delusional Insanity | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Dementia, Primary | 16 | 6 | 22 | 3 | 1 | 4 | 4 | ... | 4 | 3 | 1 | 4 |
| Do. Secondary | 2 | 1 | 3 | 3 | 1 | 4 | 18 | 1 | 19 | 19 | 8 | 27 |
| Do. Senile | 5 | ... | 5 | 1 | 1 | 2 | 4 | ... | 4 | 7 | ... | 7 |
| Do. A Potu | 2 | ... | 2 | 2 | ... | 2 | ... | ... | ... | ... | ... | ... |
| Do. Organic | 5 | ... | 5 | ... | ... | ... | 3 | ... | 3 | ... | 5 | 14 |
| Do. Not insane on admission | 2 | ... | 2 | 2 | ... | 2 | ... | ... | ... | 1 | ... | 1 |
| Delirium from Fever | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| TOTAL | 211 | 44 | 255 | 81 | 19 | 100 | 84 | 10 | 94 | 265 | 59 | 324 |

TABLE XVII.
LUNATIC ASYLUM.
Showing Occupation of Admissions.

| Occupation. | Male. | Female. | Total. | Occupation. | Male. | Female. | Total. |
|----------------------------|-------|---------|--------|----------------------------|-------|---------|--------|
| | | | | <i>Brought forward</i> ... | 100 | 4 | 104 |
| Actor ... | 1 | ... | 1 | Hawker ... | 4 | ... | 4 |
| Ayah ... | ... | 2 | 2 | House-wife ... | ... | 5 | 5 |
| Bill-collector ... | 2 | ... | 2 | Ice-water seller ... | 1 | ... | 1 |
| Barmaid ... | ... | 1 | 1 | Linesman ... | 1 | ... | 1 |
| Blacksmith ... | 1 | ... | 1 | Masseur ... | 1 | ... | 1 |
| Boatman ... | 3 | ... | 3 | Mason ... | 2 | ... | 2 |
| Baker ... | 1 | ... | 1 | Mendicant ... | 6 | ... | 6 |
| Basket-maker ... | 1 | ... | 1 | Motor-car cleaner ... | 1 | ... | 1 |
| Barber ... | 1 | ... | 1 | Nil ... | 10 | 5 | 15 |
| Book-keeper ... | 2 | ... | 2 | Priest ... | 1 | ... | 1 |
| Carpenter ... | 3 | ... | 3 | Prostitute ... | ... | 2 | 2 |
| Cart-driver ... | 3 | ... | 3 | Policeman ... | 2 | ... | 2 |
| Clerk ... | 8 | ... | 8 | Pensioner ... | 1 | ... | 1 |
| Cook ... | 9 | ... | 9 | Painter ... | 3 | ... | 3 |
| Coffee-seller ... | 2 | ... | 2 | Postman ... | 1 | ... | 1 |
| Cigar-maker ... | 2 | ... | 2 | Pork-seller ... | 1 | ... | 1 |
| Coolie ... | 11 | ... | 11 | Porter ... | 1 | ... | 1 |
| " Brick ... | 1 | ... | 1 | Planter ... | 1 | ... | 1 |
| " Copra ... | 1 | ... | 1 | " Paddy ... | 4 | ... | 4 |
| " Changkol ... | 1 | ... | 1 | " Rubber ... | 1 | ... | 1 |
| " Coffee-shop ... | 1 | ... | 1 | " Vegetable ... | 4 | ... | 4 |
| " Gambling Farm ... | 1 | ... | 1 | Pig rearer ... | 3 | ... | 3 |
| " Pineapple ... | 2 | ... | 2 | Revenue officer ... | ... | 1 | 1 |
| " Road ... | 1 | ... | 1 | ' Rikisha puller ... | 7 | ... | 7 |
| " Rubber Estate ... | 5 | ... | 5 | Rubber tapper ... | 9 | ... | 9 |
| " Sago ... | 1 | ... | 1 | Store-keeper ... | 1 | ... | 1 |
| " Shop ... | 3 | ... | 3 | Shoe-maker ... | 1 | ... | 1 |
| " Saw-mill ... | 2 | ... | 2 | Sawyer ... | 1 | ... | 1 |
| " Tin-mining ... | 2 | ... | 2 | Shop-keeper ... | 4 | ... | 4 |
| Druggist ... | 2 | ... | 2 | Surveyor ... | 1 | ... | 1 |
| Domestic ... | 4 | 1 | 5 | Sailor ... | 7 | ... | 7 |
| Engineer ... | 1 | ... | 1 | Soldier ... | 3 | ... | 3 |
| Fisherman ... | 2 | ... | 2 | School teacher ... | 1 | 1 | 2 |
| Fishmonger ... | 3 | ... | 3 | Tindal ... | 2 | ... | 2 |
| Fireman ... | 2 | ... | 2 | Trader ... | 2 | ... | 2 |
| Fruit-seller ... | 1 | ... | 1 | Theatre ticket-seller ... | 1 | ... | 1 |
| Food-seller ... | 1 | ... | 1 | Tailor ... | 2 | ... | 2 |
| Gardener ... | 4 | ... | 4 | Unknown ... | 19 | 26 | 45 |
| Grass-cutter ... | 7 | ... | 7 | Water-carrier ... | 1 | ... | 1 |
| Goldsmith ... | 2 | ... | 2 | | | | |
| <i>Carried forward</i> ... | 100 | 4 | 104 | TOTAL ... | 211 | 44 | 255 |

BERI-BERI HOSPITAL, PASIR PANJANG.

REPORT BY DR. H. J. GIBBS, *Medical Superintendent.*

There remained on 31st December, 1914, eighty-nine patients.

One hundred and five patients were admitted during the year under report, giving a total treated of 194.

Of these admissions 4 were from the General Hospital, 100 from Tan Tock Seng's Hospital, and one was admitted direct.

The nationalities of the admissions with their respective numbers were Chinese 93, Japanese 11, and Malay 1.

Of the total treated 101 were discharged, 37 absconded, and 2 died (one from beri-beri and one from phthisis).

Fifty-four patients remained in hospital on the 31st December, 1915.

Of the discharges 9 had recovered sufficiently to warrant a cure, 113 had improved considerably and 13 had not improved.

The average daily number resident was 66.34.

The percentage of deaths to total treated was 1.03 per cent.

Admissions.—All the admissions had habitually eaten uncured Siam rice. Two of the cases were œdematous, 12 had ankle drop, and 1 both ankle and wrist drop.

None admitted without œdema developed it subsequent to their admission.

Twenty-one of the admissions were from rubber estates and 11 from saw-mills.

Kandang Kerbau Hospital For Females.

REPORT BY MR. F. RODRIGUES, *Assistant Surgeon-in-charge.*

Work done:—

| | | | |
|----------------------------------|-----|-------|-----|
| Remained on 31st December, 1914 | ... | ... | 63 |
| Admitted, 1915 | ... | ... | 401 |
| | | Total | 464 |
| Discharged | ... | ... | 341 |
| Died | ... | ... | 58 |
| Remaining on 31st December, 1915 | ... | ... | 65 |

The nationalities of those admitted were:—

| | | | |
|-------------------------|-----|-----|-----|
| Europeans and Eurasians | ... | ... | 27 |
| Japanese | ... | ... | 40 |
| Chinese | ... | ... | 205 |
| Malays | ... | ... | 18 |
| Indians | ... | ... | 111 |

The average daily sick was 70.38, and the percentage of deaths 12.50.

Out of 58 deaths, 8 occurred within 48 hours of admission. Eliminating these, the percentage would be 10.77.

The principal diseases treated were:—

| | | | |
|----------------------------|-----|-----|-----|
| Venereal | ... | ... | 114 |
| Malaria | ... | ... | 40 |
| Skin Diseases | ... | ... | 27 |
| Injuries | ... | ... | 27 |
| Phthisis | ... | ... | 24 |
| Dyspepsia | ... | ... | 21 |
| Dysentery | ... | ... | 14 |
| Arthritis | ... | ... | 11 |
| Nephritis | ... | ... | 10 |
| Uterine Disorders | ... | ... | 9 |
| Ankylostomiasis | ... | ... | 8 |
| Valvular Diseases of Heart | ... | ... | 8 |
| Bronchitis | ... | ... | 8 |

List of operations for 1915:—

| | | | | |
|----------------------------------|-----|-----|-----|----|
| Removal of Cyst | ... | ... | ... | 1 |
| Incision and Drainage of Abscess | ... | ... | ... | 10 |
| Removal of Lymphatic Glands | ... | ... | ... | 8 |
| Extraction of Lens for Cataract | ... | ... | ... | 2 |
| Enucleation of Eyeball | ... | ... | ... | 1 |
| Extraction of Teeth | ... | ... | ... | 20 |
| Paracentesis of Abdomen | ... | ... | ... | 16 |
| For Fistula in Ano | ... | ... | ... | 1 |
| Dilatation of Rectal Stricture | ... | ... | ... | 1 |
| Curetting of Uterus | ... | ... | ... | 5 |
| Incision of Pelvic Hæmatocele | ... | ... | ... | 1 |
| Removal of Hypertrophied Labium | ... | ... | ... | 1 |
| Total | ... | ... | ... | 67 |

Out-patients.—Two thousand one hundred and ninety-five patients were treated among Government servants and their families and the total number of attendances among these was 3,265.

HEALTH OF SINGAPORE POLICE FORCE, 1915.

REPORT BY DR. FURNIVALL, *Police Surgeon.*

The total out-patients, amongst the different nationalities comprising this Force treated at the Central Police Station numbered 3,778, against 4,528 in 1914.

The principal diseases treated were:—

| | Europeans. | Eurasians. | Sikhs. | Malays. | Indians. | Chinese. | Total. |
|-------------------|------------|------------|--------|---------|----------|----------|--------|
| Malaria | 1 | ... | 31 | 22 | 12 | 1 | 67 |
| Venereal Disease | ... | ... | 13 | 18 | 6 | 2 | 39 |
| Fever unspecified | 1 | 1 | 245 | 344 | 88 | 36 | 715 |
| Bronchial Catarrh | ... | ... | 79 | 138 | 83 | 4 | 304 |
| Ulcers and Wounds | ... | ... | 67 | 128 | 61 | 3 | 259 |

The out-patients by nationality show as:—

| Europeans. | Eurasians. | Sikhs. | Malays. | Tamils. | Indians. | Chinese. |
|------------|------------|--------|---------|---------|----------|----------|
| 16 | 2 | 1,413 | 1,574 | 55 | 534 | 184 |

Recruits admitted to the Force were :—

| Europeans. | Eurasians. | Sikhs. | Malays. | Javanese. | Indians. | Chinese. |
|------------|------------|--------|---------|-----------|----------|----------|
| 4 | 1 | 23 | 114 | 11 | 23 | 26 |

Totalling 202 ; against rejected candidates :—

| Europeans. | Eurasians. | Sikhs. | Malays. | Javanese. | Indians. | Chinese. |
|------------|------------|--------|---------|-----------|----------|----------|
| 2 | 1 | 5 | 28 | 6 | 5 | 6 |

Totalling 53.

The number of cases admitted to the General Hospital in 1915, from the Force was 545 made up as follows :—

| Europeans. | Eurasians. | Sikhs. | Malays. | Tamils. | Chinese. | Total. |
|------------|------------|--------|---------|---------|----------|--------|
| 5 | 1 | 236 | 179 | 102 | 22 | 545 |

The principal diseases suffered from were :—

| | Europeans. | Eurasians. | Sikhs. | Malays. | Indians. | Chinese. | Total. |
|---|------------|------------|--------|---------|----------|----------|--------|
| Malaria | ... | 1 | 45 | 21 | 22 | 1 | 90 |
| Fever unspecified | 2 | ... | 72 | 46 | 26 | 5 | 151 |
| Venereal Diseases | ... | ... | 8 | 13 | 6 | 1 | 28 |
| Diarrhœa | ... | ... | 4 | 6 | 3 | 1 | 14 |
| Lung Disease, <i>e. g.</i> , Bronchitis, Asthma and Pulmonary Tuberculosis | ... | ... | 13 | 10 | 7 | 2 | 32 |

Infectious Diseases.—Three cases of Chicken-pox, one of Measles, one of Enteric Fever and one Paratyphoid occurred amongst the Police.

The various Police Stations in town and country were inspected during the year with few exceptions.

APPENDIX B.

PENANG.

REPORT BY DR. R. DANE, *Chief Medical Officer.*

1. *Statistics.*—Population:—Estimated mean annual 147,343.
 Birth-rate:—For 1913: 26·22; for 1914, 25·56; for 1915, 27·93.
 Death-rate:—For 1913: 34·82; for 1914, 35·00; for 1915, 30·71.

Infantile Mortality:—1908. 1909. 1910. 1911. 1912. 1913. 1914. 1915.

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 213 | 215 | 197 | 201 | 186 | 208 | 198 | 202 |
|-----|-----|-----|-----|-----|-----|-----|-----|

2. Table II shows for Penang Island Hospitals the figures for some important diseases:—

| | 1912. | | 1913. | | 1914. | | 1915. | |
|---------------------|--------|---------|--------|---------|--------|---------|--------|---------|
| | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| Phthisis ... | 262 | 149 | 210 | 120 | 303 | 154 | 309 | 174 |
| Typhoid ... | 7 | ... | 13 | 1 | 13 | 6 | ... | ... |
| Diarrhoea ... | 378 | 114 | 263 | 101 | 229 | 53 | 136 | 8 |
| Dysentery ... | 258 | 103 | 173 | 66 | 319 | 82 | 342 | 129 |
| Ankylostomiasis ... | 76 | 21 | 72 | 7 | 116 | 36 | 197 | 34 |
| Syphilis ... | 399 | 8 | 485 | 13 | 437 | 1 | 779 | 4 |
| Gonorrhœa ... | 153 | ... | 247 | ... | 118 | ... | 218 | 1 |
| Tetanus ... | 4 | 2 | 6 | 5 | 2 | 2 | 6 | 6 |
| Small-pox ... | 6 | 1 | 15 | 3 | ... | ... | 28 | 5 |
| Cholera ... | ... | ... | 2 | 2 | 6 | 5 | ... | ... |
| Plague ... | ... | ... | ... | ... | ... | ... | 1 | 1 |
| Malaria ... | 1,119 | 86 | 1,069 | 85 | 1,119 | 84 | 1,111 | 57 |
| Total ... | 6,824 | | 7,336 | | 7,550 | | 3,560 | |

QUARANTINE CAMP, JELUTONG.

Admissions.—Fifty-three cases were admitted during the year. Small-pox 27, Chicken-pox 17, Plague 1, Septicæmia 1, Secondary Syphilis 2, Enteritis 1, Observation 3, and No Appreciable Disease 1.

There were 8 deaths during the year, viz.:—5 Small-pox, 1 Plague, 1 Septicæmia and 1 from Enteritis, giving an average of 15.68 per cent.

GENERAL HOSPITAL, PENANG.

During 1915, 334 patients were treated in the European Wards and 1,725 in the Native Wards as compared with 531 and 1,727, respectively, in 1914.

The mortality, excluding all deaths within 48 hours of admission, was 1.8 per cent for the European Wards and 3.9 per cent for the Native Wards as compared with 3.06 per cent for the European and 5.52 per cent for the Native Wards during 1914.

The principal diseases treated were:—

| | | | | | |
|-----------------------------------|-----|-----|-----|----------------|--------------|
| Malaria | ... | ... | ... | 297 cases with | 9 deaths. |
| Venereal | ... | ... | ... | 195 | „ 1 death. |
| Skin diseases | ... | ... | ... | 127 | „ no deaths. |
| Tuberculosis (including Phthisis) | ... | ... | ... | 61 | „ 16 „ |
| Dysentery | ... | ... | ... | 39 | „ 14 „ |
| Beri-beri | ... | ... | ... | 8 | „ 1 death. |

VENEREAL WARD.

There were 172 admissions, compared with 193 in 1914.

There remained in hospital at the beginning of 1915, 16 patients making a total of 188 treated in all. The majority of patients were Chinese who formed 85 per cent of the total number of admissions. There were 8 deaths with a percentage of 4.25 to total treated.

The chief causes of deaths were Malaria and Phthisis.

REPORT ON SURGERY AT THE GENERAL HOSPITAL, PENANG, DURING 1915.

BY DR. J. GRAY, B.A., M.B., B.Ch., *Surgeon-in-charge.*

During 1915 the number of operations was practically the same as in 1914, 580 as compared with 570. The percentage of deaths was 3.24 in 1915 in operation cases, a considerable improvement on the previous year in which the percentage was 5.78.

The following table shows the operations and results:—

| MAJOR CASES. | Total. | Cured. | Relieved. | Not improved. | Died. | Remaining in Hospital. |
|--|--------|--------|-----------|---------------|-------|------------------------|
| Exploratory Laparotomy | 13 | 7 | ... | 3 | 3 | ... |
| Gastro-enterostomy | 1 | 1 | ... | ... | ... | ... |
| Omentopexy | 4 | 2 | 2 | ... | ... | ... |
| Cholecystostomy | 1 | ... | ... | ... | 1 | ... |
| Appendicectomy | 4 | 4 | ... | ... | ... | ... |
| Drainage of appendix abscess ... | 2 | 1 | ... | ... | ... | 1 |
| „ Liver abscess | 4 | 1 | ... | ... | 2 | 1 |
| Ovariectomy | 1 | 1 | ... | ... | ... | ... |
| Uterine suspension | 1 | 1 | ... | ... | ... | ... |
| Amputation of cervix uteri ... | 1 | ... | ... | ... | ... | 1 |
| Excision of intra uterine myoma ... | 1 | 1 | ... | ... | ... | ... |
| Herniotomy | 20 | 20 | ... | ... | ... | ... |
| Suprapubic cystotomy | 1 | ... | 1 | ... | ... | ... |
| Partial amputation of penis ... | 2 | 2 | ... | ... | ... | ... |
| Complete „ „ | 1 | 1 | ... | ... | ... | ... |
| External urethrotomy | 8 | 4 | 2 | ... | 2 | ... |
| Plastic operation for ruptured urethra ... | 2 | 2 | ... | ... | ... | ... |
| Radical cure of Hydrocele | 10 | 10 | ... | ... | ... | ... |
| Amputation of upper extremity ... | 12 | 9 | 1 | ... | 2 | ... |
| „ lower extremity | 8 | 5 | ... | ... | 2 | 1 |
| Excision of knee | 1 | 1 | ... | ... | ... | ... |
| Whitehead's operation | 2 | 2 | ... | ... | ... | ... |
| Excision of hæmorrhoids | 14 | 12 | 2 | ... | ... | ... |
| Trephining | 2 | 1 | ... | ... | 1 | ... |
| Plastic operation for harelip ... | 1 | 1 | ... | ... | ... | ... |
| | 117 | 89 | 8 | 3 | 13 | 4 |
| Minor operations | 463 | 273 | 156 | 3 | 6 | 25 |
| Total | 580 | 362 | 164 | 6 | 19 | 29 |

In addition to the above many cases of wounds brought by the Police were sutured, dislocation reduced and cases examined under chloroform.

A case of irreducible hernia was of interest. A Tamil aged 40 was admitted on November 2nd, with a large tense scrotal hernia on the right side, tympanitic and painful, so painful that the patient who had for years reduced the hernia by the pressure of his heel refused to do so when admitted. Immediate operation was performed; and on opening the sac a coil of small intestine was found and a large portion of the caecum with an acutely inflamed appendix. Appendicectomy followed by Bassini's herniotomy was done and the patient's recovery was uneventful; he insisted on leaving the hospital on the 7th day.

The other three appendix cases show nothing of note except that two of them were complicated with massive adhesions and a retro-caecal abscess. There were thirteen exploratory laparotomies performed during the year; in three cases malignant disease was found, two of the liver and one of the pylorus; the latter was inoperable. Five were operated on for stab wounds involving the peritoneal cavity, of these two had no injury to any viscus, one involved the liver which was sutured and the patient made a good recovery; another had his gall-bladder pierced; a gauze drain was inserted and he also recovered; the remaining case had a stab wound into the transverse colon which was sutured but the case was also complicated by two thoracic stabs piercing the lung and death resulted from heart-failure on the second day.

A Bengali was admitted on June 12th having been gored by a bull with a large portion of his intestines and omentum protruding through an abdominal wound; exploratory laparotomy showed no injury to any viscus and having washed the protruding viscera they were returned into the abdominal cavity and he was discharged on the ninth day. In a case of acute intestinal obstruction laparotomy revealed a band of adhesion under which a large loop of jejunum had passed and become strangulated; the band was removed and recovery was uneventful.

Gastro-enterostomy was performed in a case of duodenal ulcer and omentopexy in cirrhosis of the liver with marked ascites. Of the latter I have been able to keep only one under observation. Previous to operation he had been tapped every second or third day and since operation only once in three months; he left hospital and returned to work at his own request.

Analysing the causes of death.—Three exploratory laparotomy cases succumbed, one from shock, one from heart failure and the other from cancer of the pylorus. The cholecystostomy case died from cholangitis and two liver abscess cases succumbed, having had the abscess for a long time previous to admission. Of the other cases nine succumbed to sepsis, two deaths were due to tetanus, one died from heart-failure during operation and a trephine case from laceration of the brain.

During the year four cases of tetanus were admitted; all these cases died. Since September, Antetanic Serum has been given as a prophylactic in all cases of wounds contaminated with earth.

I have used gonorrhœal phylacogen in many cases of gonorrhœal infection of the prostate with uniformly good results.

X-Ray treatment for chronic ulcers has been used in many cases from the District Hospital with good results in syphilitic cases.

PRISON HOSPITAL, PENANG.

REPORT BY DR. R. DANE, *Chief Medical Officer.*

1. The sanitary condition of the Prison was good, and the general health of the prisoners satisfactory.
2. There remained 13 patients in hospital at the end of 1914.
3. Three hundred and fifty-four patients were admitted to hospital during the year making a total of 367 treated.
4. The average daily sick for the year was 9·69 as compared with 14·14 in the previous year.
5. There were 8 deaths in hospital during the year, giving a death-rate of 2·17 per cent as compared with 3·36 per cent in the year 1914.

6. The deaths were due to:—

| | | | | |
|--|-----|-----|-----|---|
| Valvular Disease of the Heart | ... | ... | ... | 1 |
| Chronic Tubercular Pleuritis with effusion | ... | ... | ... | 1 |
| Dysentery | ... | ... | ... | 3 |
| Diarrhœa | ... | ... | ... | 1 |
| Asphyxia from suicidal hanging | ... | ... | ... | 1 |
| Malaria Cachexia | ... | ... | ... | 1 |

7. Twenty-six vagrants were admitted to hospital, *i.e.*, 7·37 per cent of the total admissions to hospital, of whom 2 died.

8. The principal diseases treated were:—

| | | | | |
|-------------------------------------|-----|-----|-----|----|
| Malarial Fever | ... | ... | ... | 35 |
| Other Fevers (species unrecognized) | ... | ... | ... | 24 |
| Anæmia | ... | ... | ... | 5 |
| Dysentery | ... | ... | ... | 54 |
| Diarrhœa | ... | ... | ... | 44 |
| Ankylostomiasis | ... | ... | ... | 6 |
| Bronchitis | ... | ... | ... | 5 |
| Syphilis | ... | ... | ... | 15 |
| Ulcers | ... | ... | ... | 15 |
| Injuries | ... | ... | ... | 19 |

9. During the 2nd quarter there was an outbreak of Dysentery lasting for about 2 months, the total cases being 36 with 3 deaths.

10. During the year there were two cases of suicide by hanging occurring in the prison.

DISTRICT HOSPITAL, PENANG.

REPORT BY DR. PESTANA, *Medical Officer-in-charge.*

Work done.—Three hundred and sixty-seven patients remained in hospital at the end of 1914.

2. Four thousand three hundred and fifty-seven cases were admitted during the year making a total treated of 4,724.

3. The average daily sick was 376·21 as compared with 372·86 in 1914.

4. The percentage of deaths to total treated was 10·13 as compared with 9·78 in the previous year.

5. The number of deaths during the year was 479 against 464 in 1914; of these 66 died within 48 hours of admission; excluding these the percentage of deaths to total treated was 8·86.

6. The principal diseases treated were:—

| | | | | |
|-------------------|-----|-----|-------|-------------------------|
| Beri-beri | ... | ... | ... | 79 cases with 8 deaths. |
| Dysentery | ... | ... | 240 | „ 104 „ |
| Malaria | ... | ... | 722 | „ 36 „ |
| Ankylostomiasis | ... | ... | 137 | „ 24 „ |
| Phthisis | ... | ... | 261 | „ 141 „ |
| Venereal Diseases | ... | ... | 1,199 | „ 12 „ |

7. Four hundred and sixteen minor operations were performed during the year with 3 deaths.

FEMALE WARDS.

REPORT BY DR. R. DANE, *Chief Medical Officer.*

During 1915, 294 patients were treated, compared with 298 in 1914.

The mortality, excluding all deaths within 48 hours of admission, was 12.5 per cent as compared with 13.4 per cent in 1914.

The principal diseases treated were:—

| | | | | |
|-----------------------------------|-----|-----|-----|------------------------|
| Malaria | ... | ... | ... | 39 cases with 1 death. |
| Venereal | ... | ... | ... | 30 " 4 " |
| Dysentery | ... | ... | ... | 7 " 4 " |
| Tuberculosis (including Phthisis) | ... | ... | ... | 22 " 13 " |
| Beri-beri | ... | ... | ... | 5 " 1 " |

Ophthalmic Ward.

Work done.—There were 179 patients treated during the year, 154 indoor and 25 outdoor patients as compared with 278 in 1914.

- There were 24 operations during the year. The results were satisfactory.
- Dr. KIRK paid periodical visits and performed all operations since May.

BALIK PULAU HOSPITAL.

REPORT BY DR. R. DANE, *Chief Medical Officer.*

Buildings.—The administrative block and the Female Ward were repaired.

Work done.—The total treated was 310 with daily average of 25.30 as compared with 358 and 21.98 in the preceding year.

Twenty-three Malays were admitted—all males. Of these 16 were Police Constables.

The principal diseases treated were:—

| | | | | |
|-----------------|-----|-----|-----|------------------------|
| Ulcers | ... | ... | ... | 61 cases with 1 death. |
| Malaria | ... | ... | ... | 66 " 7 deaths. |
| Syphilis | ... | ... | ... | 24 " 1 death. |
| Dysentery | ... | ... | ... | 10 " 4 deaths. |
| Beri-beri | ... | ... | ... | 8 " 1 death. |
| Cellulitis | ... | ... | ... | 6 " no. " |
| Ankylostomiasis | ... | ... | ... | 5 " 1 " |
| Phthisis | ... | ... | ... | 8 " 6 deaths. |

Seventy-one minor operations were performed.

Mortality.—In all our hospitals very many cases arrive *in extremis*. The death-rate was 10 per cent as compared with 9.40 of the preceding year. The percentage of deaths falls to 7.38 by deducting 9 deaths which occurred within 48 hours of admission. Most of the deaths were due to Phthisis, Dysentery and Malaria.

Infectious Diseases.—Two cases of small-pox occurred at Sungei Nibong during December. Re-vaccination is at present duly preached by ten Malay Vaccinators in kampongs near where the cases occurred and more than 100 operations have been performed.

Medico-Legal.—Coroner's inquests and inquiries were held eleven times during the year.

Evidence (Medical) had to be given 5 times in the District Court and once in the Supreme Court.

LUMUT HOSPITAL, DINDINGS.

REPORT BY DR. R. DANE, *Chief Medical Officer.*

Work done.—There were 288 admissions which, with the 11 patients remaining from the previous year, makes a total of 299 treated. In 1914 the total was 430. The principal disease treated was Malarial Fever, there being 76 cases with 14 deaths as compared with 136 cases and 18 deaths in the previous year. The average daily number of patients was 11·52.

Mortality.—There were 37 deaths during the year and of these 10 died within 48 hours of admission.

The percentage of deaths to total treated was 12·37. The percentage comes to 11·07 when deaths within 48 hours of admission have been excluded.

The admissions and deaths were made up as follows:—

| | <i>Admissions.</i> | <i>Deaths.</i> |
|---------------------------------|--------------------|----------------|
| Dindings | 243 | 24 |
| Sitiawan and Lower Perak | 56 | 13 |
| Total | 299 | 37 |

Coroner's Inquests.—Twelve bodies were brought to the hospital for examination.

LEPER ASYLUM, PULAU JEREJAK.

REPORT BY DR. F. R. SAVERS, *Medical Officer-in-charge.*

| | | | | | | | | | | |
|--|--|-----------|-----|-----------|-------|-----|----------|----|-------|---|
| 1. <i>Statistics.</i> —Remained on 31st Decem-ber, 1914 | <table> <tr> <td>Colonial</td> <td>178</td> <td rowspan="4">} ... 403</td> </tr> <tr> <td>Perak</td> <td>198</td> </tr> <tr> <td>Selangor</td> <td>24</td> </tr> <tr> <td>Kedah</td> <td>3</td> </tr> </table> | Colonial | 178 | } ... 403 | Perak | 198 | Selangor | 24 | Kedah | 3 |
| Colonial | 178 | } ... 403 | | | | | | | | |
| Perak | 198 | | | | | | | | | |
| Selangor | 24 | | | | | | | | | |
| Kedah | 3 | | | | | | | | | |
| Admitted during 1915 | <table> <tr> <td>Colonial</td> <td>100</td> <td rowspan="4">} ... 169</td> </tr> <tr> <td>Perak</td> <td>46</td> </tr> <tr> <td>Selangor</td> <td>19</td> </tr> <tr> <td>Kedah</td> <td>4</td> </tr> </table> | Colonial | 100 | } ... 169 | Perak | 46 | Selangor | 19 | Kedah | 4 |
| Colonial | 100 | } ... 169 | | | | | | | | |
| Perak | 46 | | | | | | | | | |
| Selangor | 19 | | | | | | | | | |
| Kedah | 4 | | | | | | | | | |
| Discharged | Colonial 1 | | | | | | | | | |
| Transferred | Colonial 1 | | | | | | | | | |
| Absconded | <table> <tr> <td>Colonial</td> <td>3</td> <td rowspan="3">} ... 7</td> </tr> <tr> <td>Perak</td> <td>3</td> </tr> <tr> <td>Selangor</td> <td>1</td> </tr> </table> | Colonial | 3 | } ... 7 | Perak | 3 | Selangor | 1 | | |
| Colonial | 3 | } ... 7 | | | | | | | | |
| Perak | 3 | | | | | | | | | |
| Selangor | 1 | | | | | | | | | |
| Died | <table> <tr> <td>Colonial</td> <td>73</td> <td rowspan="4">} ... 140</td> </tr> <tr> <td>Perak</td> <td>55</td> </tr> <tr> <td>Selangor</td> <td>9</td> </tr> <tr> <td>Kedah</td> <td>3</td> </tr> </table> | Colonial | 73 | } ... 140 | Perak | 55 | Selangor | 9 | Kedah | 3 |
| Colonial | 73 | } ... 140 | | | | | | | | |
| Perak | 55 | | | | | | | | | |
| Selangor | 9 | | | | | | | | | |
| Kedah | 3 | | | | | | | | | |
| Remaining on 31st December, 1915 | <table> <tr> <td>Colonial</td> <td>200</td> <td rowspan="4">} ... 423</td> </tr> <tr> <td>Perak</td> <td>186</td> </tr> <tr> <td>Selangor</td> <td>33</td> </tr> <tr> <td>Kedah</td> <td>4</td> </tr> </table> | Colonial | 200 | } ... 423 | Perak | 186 | Selangor | 33 | Kedah | 4 |
| Colonial | 200 | } ... 423 | | | | | | | | |
| Perak | 186 | | | | | | | | | |
| Selangor | 33 | | | | | | | | | |
| Kedah | 4 | | | | | | | | | |

The average daily number of inmates was 411·58.

The percentage of deaths was 24·47.

One Tamil leper committed suicide by drowning.

2. The lepers received the usual New Year gifts of 25 cents per man.

3. *Staff.*—Mr. Assistant Surgeon BRUCE, who had been in charge of the Asylum for over 23 years, became seriously ill towards the close of 1914. He was admitted to the General Hospital, Penang, where he died on the 7th June, 1915.

The health of the staff has been fair throughout the year; but there have been a few cases of Malaria among the coolies.

4. *Treatment of Leprosy.*—Treatment with injections of Nastin and Heiser's preparation of Chaulmoogra Oil was suspended from the beginning of the year until August, owing to the lepers refusing frequent injections. When Dr. HEISER, Chief Health Officer, Manila, visited the Asylum, he explained his treatment to the lepers and told them of the benefits to be obtained from the injections and of the good results he had obtained at the Philippines. As a result a fresh start was made in August with a few cases and gradually the numbers swelled and there are now over seventy cases undergoing this treatment. The other lepers are eagerly watching the result of this treatment. Many lepers have expressed their satisfaction with the immediate results, such subjective symptoms as the return of sensation, a feeling of lightness and greater ease in movements of fingers, etc., being especially mentioned by them. Changes in colour and size of patches on face and other parts, shrivelling up of nodular thickenings of lobes of ears and of other parts, disappearance of chronic œdematous conditions and the clearing up of dermatitis have all been noticed. In a few cases œdema of hands and feet developed after injections when further treatment was suspended.

Amongst those undergoing these injections, one patient, lately transferred from Singapore Asylum, had these injections when in Singapore. He is now having 6 c. c. injected once a week. In this case the disease has made no further progress and it remains to be seen whether continuous and prolonged treatment will result in cure, or permanent amelioration.

Since starting with the injection treatment many lepers have taken Chaulmoogra Oil in gelatine capsules. They declare that the oil taken thus has some good effects on their general condition. This use of the oil by mouth is becoming more general.

Since August clarified Chaulmoogra Oil has been tried. Previously the crude oil was in use.

This crude oil, which is unsuitable for injection purposes, is found beneficial in the external treatment of suppurating sinuses with sloughing of tissues, when combined with a small proportion of resorcin and camphorated oil. In some cases the addition of a little powdered iodoform is a great aid. Many cases of sloughing toes and fingers have improved under this treatment.

5. *Buildings.*—All wards and other buildings including Dressers' and Assistant Surgeon's quarters were painted and whitewashed during the year. Several minor repairs were also carried out.

The reservoir at the Leper Asylum was thoroughly overhauled and its bed completely concreted.

FEMALE LEPER WARD, JELUTONG.

REPORT BY DR. R. DANE, *Chief Medical Officer.*

The ward and out-houses were kept in good condition during the year.

Twenty-one cases remained at the end of 1914, and 4 cases were admitted, making a total of 25. Three died.

The average stay of those who died was 4 years.

During the year Intramuscular Injections of 01. Chaulmoogra and Resorcin were tried on 6 cases. The recent cases showed a slight improvement in the ulcers and in the nodes.

APPENDIX C.

PROVINCE WELLESLEY.

REPORT BY DR. W. S. SHEPPARD, M.B., B.C., *Medical Officer-in-charge.*

1. The public health was remarkably good in 1915.

Only 13 cases of acute infectious disease were reported. Of these 13, seven were cases of Cholera, five of Small-pox and one of Chicken-pox.

Five of the 7 cases of Cholera occurred on one Estate—Bakap Plantations. The other two cases occurred on Victoria Estate. Four of the seven cases proved fatal.

Of the five cases of Small-pox, three occurred in one Kampong in the Central District, one case occurred quite close to the Butterworth Quarantine Camp and the fifth case was reported from Nibong Tebal village. There were no deaths. Two of the five showed no vaccination marks; one had only one mark. There is no record of the marks of the other two cases, though one of them was said to have been vaccinated twice.

The single case of Chicken-pox was complicated by a severe malignant Malarial infection and ended fatally.

Malaria.—Returns for 1915 show 283 cases treated in the Government Hospitals as against 394 treated in 1914.

Ankylostomiasis also shows a decrease, three hundred and forty-nine cases as against 366 in 1914.

Diarrhoea and Dysentery show a marked decrease in incidence. Only 89 cases are recorded as against 145 cases in 1914.

2. The estimated mean population for 1915 is 135,247, being an increase of 1,470 on last year's figures.

The death-rate shows a still further decline, being 26.17 per thousand as compared with 28.03 per thousand in 1914.

The decline has been gradual since 1911.

The birth-rate for the year under review works out at 32.49 per thousand showing a fractional decrease on that for 1914 which was 32.67 per thousand.

3. The two impounding reservoirs in the Central and Southern Districts respectively continued to supply those districts with water of fair average quality during the year. The laying of a new siphon under the Prai River caused a temporary curtailment of the supply to Butterworth and neighbouring villages on the northern side of the river during the months of June to September, but there was never a complete stoppage of the supply.

4. Vaccination was regularly performed and resulted in 3,784 operations with 3,541 successes, 106 "modified" successes and 75 failures. Sixty-two cases eluded subsequent inspection.

The Caledonia Medical Staff reported 153 operations with 78 perfect, and 45 "modified" successes. Fifteen cases failed and 15 were not seen after the operation.

5. The sanitary activities of the Rural Board were maintained during the year. Most—if not all—of the larger villages are now equipped with the needful sanitary appliances for keeping them clean.

Drainage.—So far as is compatible with the main industry of the people, viz.:—rice-growing—is duly carried out.

No new works of any importance were inaugurated.

BUTTERWORTH HOSPITAL.

1. *Buildings.*—The new Office and Dispensary were completed in October.

2. *Work done.*—Forty patients remain-d in the hospital at the beginning of the year. Eight hundred and twenty patients were admitted during the year making a total treated of 860 patients. The average daily number of sick was 47.11. The number of deaths was 98. The percentage of deaths to total treated was 10.23 excluding 18 deaths occurring within 48 hours of admission. Forty-four patients remained in the hospital at the end of the year.

3. The principal diseases treated and percentage of mortality were as follows:—

| <i>Diseases.</i> | <i>Number of cases.</i> | <i>Number of Deaths.</i> | <i>Mortality percentage.</i> |
|-------------------------------|-------------------------|--------------------------|------------------------------|
| Anæmia (Simple)... | 10 | 1 | 10·00% |
| Ankylostomiasis ... | 46 | 9 | 19·56% |
| Beri-beri ... | 9 | 3 | 33·33% |
| Cirrhosis of Liver ... | 11 | 5 | 45·45% |
| Dysentery ... | 15 | 8 | 53·33% |
| Enteritis ... | 30 | 10 | 33·33% |
| Malaria ... | 92 | 11 | 11·95% |
| Nephritis ... | 15 | 5 | 33·33% |
| Phthisis ... | 19 | 14 | 73·68% |
| Pneumonia ... | 6 | 3 | 50·00% |
| Gonorrhœa ... | 17 | ... | ... |
| Soft Chancre ... | 10 | ... | ... |
| Syphilis ... | 68 | 2 | 2·94% |
| Valvular Disease of Heart ... | 19 | 5 | 26·31% |
| Wounds ... | 109 | 4 | 3·66% |
| Yaws ... | 1 | ... | ... |

One hundred and thirty-one Police cases were attended to during the year.

The Police sent in thirteen persons for observation of their mental condition.

BUKIT MERTAJAM HOSPITAL.

Buildings.—During the year a separate bath-room and latrine, was erected for the use of the female patients.

The wooden gang-way between the wards I and II was replaced by a concrete one with iron railings. The attap roofings of the Mortuary and Meteorological sheds were renewed.

The road in front of the hospital was tarred.

2. The following figures briefly summarise the work done:—

| | | | |
|--|-----|-----|-------|
| Remaining at the end of December, 1914 | ... | ... | 44 |
| Admitted during the year 1915 | ... | ... | 1,078 |
| Total treated | ... | ... | 1,122 |
| Average daily number of sick | ... | ... | 42·09 |
| Discharges during the year 1915 | ... | ... | 957 |
| Transferred ... | ... | ... | 1 |
| Absconded ... | ... | ... | 19 |
| Died ... | ... | ... | 116 |
| Number of deaths within 48 hours of admission | ... | ... | 27 |
| Percentage of deaths to total treated | ... | ... | 10·33 |
| Percentage of deaths to total treated excluding those dying within 48 hours of admission | ... | ... | 8·12 |

3. The number of paying patients was 76 as compared with 97 of previous year, and the number of estate coolies admitted was 160 as against 172 of last year.

4. The principal diseases treated were as follows:—

| | Number of Cases. | Number of Deaths. |
|--------------------------------------|---------------------|----------------------|
| Malaria | 91 | 7 |
| Pneumonia | 16 | 10 |
| Gonorrhœa | 38 | 3 |
| Soft Chancre | 49 | ... |
| Syphilis | 117 | 1 |
| Dysentery | 33 | 13 |
| Tuberculosis | 6 | 2 |
| New Growth, Malignant | 12 | 3 |
| Ankylostomiasis | 174 | 29 |
| Phthisis | 28 | 16 |
| Nephritis (acute and chronic) | 11 | 3 |
| Injuries (General and Local) | 151 | 5 |

5. Blood films were taken of all fever cases, and the stools of all cases suspected of Ankylostomiasis were examined.

6. Fourteen Necropsies were performed during the year on patients dying in the hospital.

7. *Medico-legal*:—

(a) The Coroner sent in 21 bodies for post-mortem examination.

(b) The Police sent up 97 cases for examination or for treatment including 8 persons for observations on their mental conditions.

(c) Medical evidence was given at the Police Court on 21 occasions.

SUNGEI BAKAP HOSPITAL.

1. *Buildings and ground*.—Both have been in good order throughout the year. The old Assistant Surgeon's quarters have been occupied by the three Dressers, and the old Dressers' quarters have been pulled down. An extra shed for patients and an Attendant's quarters have been erected in the Quarantine Camp and they have been occupied since the end of November, 1915.

2. *Work done*.—Twenty-nine patients remained in the hospital at the beginning of the year. There were 692 admissions during the year making a total of 721 treated. The average daily number of sick was 35.55. Number of deaths was 68. The percentage of deaths to total treated was 9.43, excluding 24 deaths occurring within 48 hours of admission. Twenty-eight patients remained in hospital at the end of the year.

3. The principal diseases treated and percentage of mortality from each were as follows:—

| <i>Diseases.</i> | <i>No. of cases.</i> | <i>No. of deaths</i> | <i>Mortality %</i> |
|-------------------------------|----------------------|----------------------|--------------------|
| Ankylostomiasis | 129 | 16 | 12.40 |
| Cholera | 5 | 3 | 60.00 |
| Diarrhœa | 7 | 2 | 28.57 |
| Dysentery | 23 | 8 | 34.78 |
| Leprosy | 11 | 1 | 9.09 |
| Malaria | 100 | 7 | 7.00 |
| New-growth (Malignant) | 4 | ... | ... |
| Pneumonia | 7 | 2 | 28.57 |
| Small-pox | 1 | ... | ... |
| Gonorrhœa | 11 | ... | ... |
| Soft Chancre | 21 | ... | ... |
| Syphilis | 100 | 1 | 1.00 |
| Tuberculosis | 25 | 11 | 44.00 |
| Wounds | 94 | 2 | 2.12 |

4. Twenty-two Necropsies on patients dying in the hospital were performed during the year 1915.

5. *Medico-legal*.—The Coroner sent in 43 dead bodies for post-mortem examination. Forty-three inquests were held.

The Police sent up 182 cases for examination or treatment including 15 for observation of Insanity and 11 for Leprosy.

Medical evidence was given in the Courts on 41 occasions.

6. A case of congenital tumour which appeared to be of malignant nature growing from the Periosteum covering the anterior surface of the Coccyx, was removed successfully. On account of the rarity of such a growth in this region, it is interesting to record this case.

The subject was a Chinese girl aged one year. The mother gave a history of a swelling of the size of a small orange growing bigger gradually along the posterior wall of the anus. It was not noticeable until the child was a month old.

When brought to the hospital, the patient was markedly cachetic. The growth had attained the size of the child's head. The skin was adherent in places to the subjacent tumour and showed numerous distended venules. Ulceration was beginning at many points on the surface. A part of the coccyx had to be removed, as also a small portion of the lowest portion of the rectum to which the tumour was intimately adherent. The child made a good recovery and had no incontinence of faeces on leaving the hospital six weeks later. No local recurrence or metastatic growth has appeared up to the present—six months since the operation. On section the contents of the Cyst were a dark blood-stained fluid of a treacly consistence.

Unfortunately no microscopic examination of the Cyst-wall was made.

In passing, mention may be made of the new antiseptic prepared from Calcium Chloride and Boric Acid which was tried with conspicuous success in this case. It is easy to prepare and has invariably given excellent results in this hospital.

8. *Ankylostomiasis*.—One hundred and twenty-nine cases were treated during the year with 16 deaths. The percentage of mortality was 12.40. The immediate cause of death in several cases was cardiac failure presumably from degeneration produced by chronic anæmia. In others, it was exhaustion and toxæmia from supervening ulcerative colitis. The high mortality was due to neglect on the part of the patient or relatives in the early stage of the disease.

One hundred and twenty-five specimens of stool after the usual treatment were examined and all the worms saved and examined. In 2 cases only, there was mixed infection of Necator and Ankylostome and in the remaining 123 all the worms proved to be the Necator only.

The stools of 35 Malay boys from the Vernacular School at Sungei Bakap were examined. In seven of them ova of Ankylostoma were discovered. All these 7 boys were living in kampongs adjoining some plantations.

9. *Dysentery*.—Twenty-three cases were treated with 8 deaths. Mortality was 34.78. The majority of the cases were in the chronic stage. Twenty specimens of stool were examined for Amæba and in 6 cases Amæba living or dead, was demonstrated.

10. *Vaccination*.—Nine hundred and eighty-three children were vaccinated in the Southern District with 15 failures.

11. The health of the Police has been good. There were 19 admissions to hospital with no deaths.

12. *Rainfall*.—The total rainfall registered was 104.57" as compared with 107.42" in 1914.

Surgical Operations performed in Province Wellesley during 1915.

| | No. of cases. | Cured. | Relieved. | Died. |
|---------------------------------------|---------------|--------|-----------|-------|
| <i>On Tumours:—</i> | | | | |
| (a) Excision of non-malignant growths | 7 | 7 | ... | ... |
| (b) Excision of Cyst | 2 | 2 | ... | ... |
| <i>Carried forward</i> | 9 | 9 | ... | ... |

| | <i>No. of cases.</i> | <i>Cured.</i> | <i>Relieved.</i> | <i>Died.</i> |
|---|----------------------|---------------|------------------|--------------------|
| <i>Brought forward</i> ... | 9 | 9 | ... | ... |
| <i>For Abscess and Cellulitis:—</i> | | | | |
| (a) Incision and drainage for abscess | 93 | 92 | ... | 1 from Septicæmia. |
| (b) Incision for Cellulitis ... | 8 | 8 | ... | ... |
| <i>Operation for arrest of Hæmorrhage:—</i> | | | | |
| (a) Ligature of Arteries ... | 6 | 6 | ... | ... |
| <i>On Lymphatics:—</i> | | | | |
| (a) Excision of glands ... | 26 | 26 | ... | ... |
| (b) Incision and Drainage ... | 50 | 50 | ... | ... |
| <i>On Skin and Subcutaneous Tissue:—</i> | | | | |
| (a) Suturing of Wounds ... | 210 | 210 | ... | ... |
| (b) Plastic operation for Cicatricis ... | 2 | 2 | ... | ... |
| (c) Skin grafting ... | 1 | 1 | ... | ... |
| (d) Cauterization ... | 3 | 3 | ... | ... |
| (e) Curetting Ulcers ... | 11 | 11 | ... | ... |
| (f) Curetting for sinus ... | 16 | 16 | ... | ... |
| (g) Carbuncle incised ... | 3 | 3 | ... | ... |
| (h) Removal of bullet ... | 1 | 1 | ... | ... |
| <i>On Bones:—</i> | | | | |
| (a) Removal of sequestrum | 12 | 12 | ... | ... |
| (b) Uniting recent fractures | 2 | 2 | ... | ... |
| <i>On Joints:—</i> | | | | |
| (a) Aspiration ... | 4 | 4 | ... | ... |
| (b) Excision of joints ... | 2 | 2 | ... | ... |
| (c) Incision with drainage ... | 1 | 1 | ... | ... |
| <i>Operations on Tendons and Fasciæ:—</i> | | | | |
| (a) Tenotomy ... | 1 | 1 | ... | ... |
| (b) Suturing of Plantar Fascia | 1 | ... | ... | 1 from Tetanus. |
| <i>Amputations:—</i> | | | | |
| (a) Leg for gangrene ... | 1 | 1 | ... | ... |
| (b) Thigh ... | 1 | ... | ... | 1 |
| (c) Toes ... | 2 | 2 | ... | ... |
| (d) Finger ... | 4 | 4 | ... | ... |
| (e) Arm ... | 2 | 2 | ... | ... |
| <i>Operations on Skull:—</i> | | | | |
| (a) Elevation of depressed bone ... | 2 | 2 | ... | ... |
| <i>On Spine:—</i> | | | | |
| (a) Lumbar puncture ... | 2 | 2 | ... | ... |
| <i>On Eye:—</i> | | | | |
| (a) Excision of Eyeball ... | 4 | 4 | ... | ... |
| (b) Extraction of Lens ... | 3 | 3 | ... | ... |
| (c) Paracentesis ... | 1 | 1 | ... | ... |
| <i>Carried forward</i> ... | 484 | 481 | ... | 3 |

| | <i>No. of Cases.</i> | <i>Cured.</i> | <i>Relieved.</i> | <i>Died.</i> |
|--|----------------------|---------------|------------------|--------------|
| <i>Brought forward</i> ... | 484 | 481 | ... | 3 |
| <i>Dental Operations:—</i> | | | | |
| (a) Extraction of teeth ... | 23 | 23 | ... | ... |
| <i>On Trachea:—</i> | | | | |
| (a) Suturing ... | 1 | 1 | ... | ... |
| <i>On Pharynx and Oesophagus:—</i> | | | | |
| (a) Extraction of foreign body ... | 5 | 5 | ... | ... |
| <i>On Thorax:—</i> | | | | |
| (a) Paracentesis of Pleura ... | 3 | 2 | ... | 1 |
| (b) Thoracotomy ... | 1 | 1 | ... | ... |
| <i>On Abdomen:—</i> | | | | |
| (a) Paracentesis abdominis | 21 | ... | 21 | .. |
| (b) Laparotomy and drainage for septic peritonitis ... | 2 | ... | ... | 2 |
| (c) Incision and drainage of appendicular abscess ... | 1 | 1 | ... | ... |
| (d) Incision and drainage of perinephric abscess ... | 1 | 1 | ... | ... |
| (e) Suturing intestines ... | 1 | ... | ... | 1 |
| (f) Radical cure for inguinal hernia ... | 5 | 5 | ... | ... |
| (g) Herniotomy ... | 2 | 2 | ... | ... |
| (h) Removal of Renal Calculus ... | 1 | 1 | ... | ... |
| <i>On Anus:—</i> | | | | |
| (a) Ligature of Haemorrhoids | 1 | 1 | ... | ... |
| <i>On Bladder:—</i> | | | | |
| (a) Supra-pubic Cystotomy for Vesical Calculus ... | 3 | 3 | ... | ... |
| <i>On Urethra:—</i> | | | | |
| (a) Dilation of stricture ... | 6 | 6 | ... | ... |
| (b) Urethral Fistula ... | 1 | 1 | ... | ... |
| (c) Removal of Urethral Calculus ... | 1 | 1 | ... | ... |
| <i>On Male generative organs:—</i> | | | | |
| (a) Circumcision ... | 47 | 47 | ... | ... |
| (b) Radical cure for Hydrocele ... | 7 | 7 | ... | ... |
| (c) Castration (single) ... | 1 | 1 | ... | ... |
| (d) Amputation of penis ... | 1 | 1 | ... | ... |
| <i>Obstetric:—</i> | | | | |
| (a) Embryotomy ... | 1 | 1 | ... | ... |
| (b) Application of forceps ... | 2 | 2 | ... | ... |
| (c) Internal version ... | 1 | 1 | ... | ... |
| (d) Curetting of uterus ... | 1 | 1 | ... | ... |
| Total ... | 624 | 596 | 21 | 7 |

ESTATES AND ESTATE HOSPITALS.

1. The health of the labour staff on the Estates has been fairly good during the year 1915.

2. With the exception of two Estates—Bakap Plantations and Caledonia—there was complete freedom from acute infectious disease.

On Bakap there occurred five cases of Cholera in May and June and on Victoria (Caledonia Group) there occurred one case of the same disease in June.

A single case of Cholera also occurred in the Christian Tamil Lines of Caledonia Estate in June.

In none of these cases could the history of the primary infection be traced.

The cases at Bakap all used water from a certain well which came under suspicion. I had this closed and no further cases occurred.

The pipe-line from Bukit Panchor Reservoir passes close by this Estate and I recommended the utilisation of this source of supply. But I regret that up to the present it has not been found possible to make effective my recommendation.

3. I have a strong suspicion that the figures for Ankylostomiasis do not loom as large in the Return of Diseases as they should.

I have good grounds for believing that the majority of the cases of this disease are still unrecognized.

The Dressers in immediate charge of the Estate Hospitals are untrained in microscopic work and many Estates are unprovided with microscopes.

The Medical Officers employed by the Estates have such a large amount of work to do—some of them have as many as eight or ten Estates to look after and others have large private practices—that attention to such minute details as the inspection and microscopic investigation of coolies' motions can hardly be expected of them.

And yet this is the only way to discover and stamp out this disease which, under present conditions, it requires no particular shrewdness to predict will cause in the near future grave weakening of the labour force of the country.

The grounds on which the above opinion is based are as follows:—

1. In the Government Hospitals patients seek admission for "fever," "weakness," "dropsy," "anæmia," "diarrhœa," "nondescript symptoms"—may be only "malaise." A recent examination of the motions of all such cases in the three Government Hospitals revealed the following:—

Butterworth.—Out of 44 patients 11 had Ankylostomes.

Bukit Mertajam.—Out of 38 patients 23 had Ankylostomes.

Sungei Bakap.—Out of 31 patients 11 had Ankylostomes—making an average percentage of infection for the three districts of 40 per cent. The prevailing type of parasite is the *Necator Americanus*.

2. In a recent visit of inspection to one of the Estate Hospitals, I saw a girl patient with unmistakable evidences of profound anæmia and a diagnosis of "Asthma" on the bed ticket. She was being treated with antispasmodics such as Lobelia. Her motions had not been examined, nor her blood, though she had been a week in hospital.

Her doctor was one of the most capable private practitioners I have ever met, but how could he be expected to spare the time from a busy practice to make a microscopic examination of blood and motions in a case like this? The Dresser-in-charge on whom this duty should have devolved was quite innocent of the knowledge necessary for the task.

The above is, by no means, an isolated instance.

APPENDIX D.

MALACCA HOSPITALS.

REPORT BY DR. A. H. KEUN, M.B., B. Ch., *Chief Medical Officer.*

The population is made up as follows:—

| | | | | | |
|-----------|-----|-----|-----|-----|----------------|
| Europeans | ... | ... | ... | ... | 338 |
| Eurasians | ... | ... | ... | ... | 1,709 |
| Chinese | ... | ... | ... | ... | 39,380 |
| Malays | ... | ... | ... | ... | 87,552 |
| Indians | ... | ... | ... | ... | 8,333 |
| Others | ... | ... | ... | ... | 476 |
| Total | ... | ... | ... | ... | <u>137,788</u> |

Births.—There were 5,078 births in 1915 contrasting with 4,741 in 1914 and 4,506 in 1913.

The following table shows the nationalities:—

| | | | <i>Males.</i> | <i>Females.</i> | <i>Total.</i> |
|-----------|-----|-----|---------------|-----------------|---------------|
| Europeans | ... | ... | 2 | 3 | 5 |
| Eurasians | ... | ... | 38 | 29 | 67 |
| Chinese | ... | ... | 435 | 446 | 881 |
| Malays | ... | ... | 1,980 | 1,840 | 3,820 |
| Indians | ... | ... | 77 | 79 | 156 |
| Others | ... | ... | 70 | 79 | 149 |
| Total | ... | ... | <u>2,602</u> | <u>2,476</u> | <u>5,078</u> |

The Birth-rate per mille was 36·85 per cent.

Deaths.—Four thousand nine hundred and eighty-one were registered in 1915, as contrasted with 5,176 in 1914 and 5,333 in 1913.

| | | | <i>Males.</i> | <i>Females.</i> | <i>Total.</i> |
|-----------|-----|-----|---------------|-----------------|---------------|
| Europeans | ... | ... | 1 | Nil | 1 |
| Eurasians | ... | ... | 28 | 20 | 48 |
| Chinese | ... | ... | 956 | 250 | 1,206 |
| Malays | ... | ... | 1,694 | 1,524 | 3,218 |
| Indians | ... | ... | 313 | 94 | 407 |
| Others | ... | ... | 71 | 30 | 101 |
| Total | ... | ... | <u>3,063</u> | <u>1,918</u> | <u>4,981</u> |

Comparing the death-rate for 1915 with that of 1914, 1913 and 1912 a decrease is again noticed.

| | | | | | |
|------------|------|-----|-----|-----|-------|
| Death-rate | 1915 | ... | ... | ... | 36·14 |
| " | 1914 | ... | ... | ... | 38·56 |
| " | 1913 | ... | ... | ... | 40·78 |
| " | 1912 | ... | ... | ... | 49·09 |

Of these deaths 452 occurred in Hospitals, 18 were certified by Registered Medical Practitioners, 719 were registered after death and 3,792 were not certified.

Vaccinations.—Vaccinations were vigorously done throughout the year, 23,678 in all.

Municipality.—The estimated population for the Municipality for 1915 is 21,837. There were 672 births and 824 deaths within Municipal limits. As in previous years, malaria was responsible for a considerable number of deaths, viz., 175, and convulsions for 126 deaths. Tetanus accounted for 35 deaths among infants as contrasted with 42 in 1914, 46 in 1913 and 47 in 1912.

This reduction in the tetanus infantile mortality shows, I think, that the native midwives are following to some extent instructions given them in my lectures especially as to the dressing of the cord.

The Lady Inspector of Midwives in her report stated that she saw 23 of these deaths and that 19 of them were infants born without midwives being in attendance.

A still further reduction could be made were all infants registered within 24 hours after birth; cases could then be seen at an earlier stage and precautions taken in the dressing of the cord and the use of native powders, etc., prohibited. The free distribution of antiseptics, lint, etc., to the midwives within Municipal limits still continues. To combat the Infantile Mortality from convulsions which are chiefly caused by injudicious feeding, free distribution of milk (condensed) was continued. The Lady Inspector had control over this and as every child who received the milk was personally seen by her, there was no abuse. Four hundred and fifty-one tins of milk were supplied during the year. Directions were given in all cases as to cleanliness of bottles and feeding of babies. Of 13 infants to whom milk was supplied:—one died from convulsions and the remaining 12 showed immediate improvement and put on a rapid increase in weight.

Durian Daun Hospital.

Buildings.—The New Wards for Europeans completed in December, 1914, were in full use by January, 1915.

New wards for females were constructed by remodelling the old female ward and by the erection of two large wards each capable of holding 10 beds. These wards were occupied in December and now enable us to separate the different nationalities.

Nurses.—The Nursing Staff of the European Wards was inaugurated on January 5th with the arrival of Miss GIFFKINS, Matron, and two Nurse Probationers, thus filling a long-felt want.

Malays.—There were 494 Malays admitted to the Hospital, compared with 233 in 1913 and 291 in 1914. The deaths amongst the males were 6 out of 477 treated; and 1 death out of 17 females treated.

| <i>Work done.</i> — | | General Wards. | |
|--------------------------------------|-----|----------------|-------|
| Remained on 31st December, 1914 ... | ... | ... | 31 |
| Admitted 1915 ... | ... | ... | 1,192 |
| Discharged ... | ... | ... | 1,073 |
| Transferred ... | ... | ... | 19 |
| Absconded ... | ... | ... | 44 |
| Died ... | ... | ... | 42 |
| Remaining on 31st December, 1915 ... | ... | ... | 45 |

There were 73 Europeans admitted (60 males and 13 females) as compared with 66 in 1914. Most of the cases were suffering from severe Malaria or Dysentery. There was but one death, from Phthisis, among them.

Percentage of deaths to total treated was ... 3.4

The principal diseases treated were :—

| | | | | | |
|-----------------|-----|-----|-----|---------------|------------|
| Beri-beri | ... | ... | ... | 19 cases with | 2 deaths. |
| Dysentery | ... | ... | ... | 33 " " | 6 " |
| Diarrhœa | ... | ... | ... | 24 " " | 1 death. |
| Ankylostomiasis | ... | ... | ... | 17 " " | 1 " |
| Gonorrhœa | ... | ... | ... | 23 " " | no " |
| Syphilis | ... | ... | ... | 19 " " | no " |
| Malaria | ... | ... | ... | 339 " " | 12 deaths. |
| Lung Diseases | ... | ... | ... | 79 " " | 10 " |
| Appendicitis | ... | ... | ... | 3 " " | 1 death. |
| Ulcers | ... | ... | ... | 57 " " | no " |
| Skin Diseases | ... | ... | ... | 47 " " | no " |
| Injuries | ... | ... | ... | 178 " " | 3 deaths. |

Pauper Wards (Male).

| | | | | |
|----------------------------------|-----|-----|-----|--------|
| Remained on 31st December, 1914 | ... | ... | ... | 200 |
| Admitted, 1915 | ... | ... | ... | 2,998 |
| Discharged | ... | ... | ... | 2,661 |
| Absconded | ... | ... | ... | 38 |
| Died | ... | ... | ... | 312 |
| Remaining on 31st December, 1915 | ... | ... | ... | 187 |
| Daily average was | ... | ... | ... | 173'93 |

Percentage of deaths to total treated was ... 9'7

Principal diseases treated were:—

| | | | | | |
|-----------------------|-----|-----|-----|----------------|------------|
| Beri-beri | ... | ... | ... | 158 cases with | 15 deaths. |
| Ankylostomiasis | ... | ... | ... | 104 " " | 24 " |
| Dysentery | ... | ... | ... | 92 " " | 26 " |
| Diarrhœa | ... | ... | ... | 63 " " | 31 " |
| Gonorrhœa | ... | ... | ... | 86 " " | no " |
| Soft Chancres | ... | ... | ... | 16 " " | no " |
| Syphilis | ... | ... | ... | 161 " " | 1 death. |
| Malaria | ... | ... | ... | 962 " " | 59 deaths. |
| Pneumonia | ... | ... | ... | 85 " " | 33 " |
| New Growths | ... | ... | ... | 8 " " | 4 " |
| Hemiplegia | ... | ... | ... | 12 " " | no " |
| Bronchitis and Asthma | ... | ... | ... | 65 " " | no " |
| Phthisis | ... | ... | ... | 127 " " | 62 " |
| Cirrhosis Liver | ... | ... | ... | 23 " " | 8 " |
| Chronic Nephritis | ... | ... | ... | 34 " " | 10 " |
| Ulcers | ... | ... | ... | 452 " " | no " |
| Skin Diseases | ... | ... | ... | 95 " " | no " |
| Wounds | ... | ... | ... | 28 " " | no " |

Female Wards.

| | | | | |
|----------------------------------|-----|-----|-----|-----|
| Remained on 31st December, 1914 | ... | ... | ... | 18 |
| Admitted, 1915 | ... | ... | ... | 224 |
| Discharged | ... | ... | ... | 210 |
| Transferred | ... | ... | ... | 2 |
| Absconded | ... | ... | ... | 3 |
| Died | ... | ... | ... | 15 |
| Remaining on 31st December, 1915 | ... | ... | ... | 12 |

Nationalities:—

| | | | | | | |
|-----------|-----|-----|-----|-----|-----|-----|
| Europeans | ... | ... | ... | ... | ... | 13 |
| Eurasians | ... | ... | ... | ... | ... | 30 |
| Chinese | ... | ... | ... | ... | ... | 94 |
| Malays | ... | ... | ... | ... | ... | 17 |
| Tamils | ... | ... | ... | ... | ... | 61 |
| Japanese | ... | ... | ... | ... | ... | 10 |
| Others | ... | ... | ... | ... | ... | 3 |
| Total | | | | | | 228 |

Principal diseases treated were:—

| | | | | |
|-----------------|-----|-----|---------------|-------------|
| Malaria | ... | ... | 30 cases with | 1 death. |
| Ankylostomiasis | ... | ... | 6 " | " 1 " |
| Dysentery | ... | ... | 8 " | " 1 " |
| Gonorrhœa | ... | ... | 28 " | " no " |
| Soft Chancres | ... | ... | 5 " | " no " |
| Syphilis | ... | ... | 15 " | " no " |
| Puerperal Fever | ... | ... | 2 " | " 2 deaths. |
| Lung Diseases | ... | ... | 11 " | " 3 " |
| Skin Diseases | ... | ... | 12 " | " no " |
| Ulcers | ... | ... | 17 " | " no " |

Operations.—Five hundred and thirty-eight were performed during the year, mostly minor, but including:—

| | | | | |
|--|-----|-----|-----|-------------------|
| Abscess, Liver | ... | ... | ... | 1 case. |
| Amputation, Fingers | ... | ... | ... | 1 " |
| " Hand | ... | ... | ... | 1 " |
| " Thigh | ... | ... | ... | 2 cases. |
| " Toes | ... | ... | ... | 3 " |
| Empyemata | ... | ... | ... | 2 " |
| Enucleation, Glands | ... | ... | ... | 8 " |
| Explorative Laparotomy... | ... | ... | ... | 1 case. |
| Hernia, radical cure | ... | ... | ... | 4 cases. |
| Hæmorrhoids, radical cure | ... | ... | ... | 1 case. |
| Hydrocele, radical cure | ... | ... | ... | 5 cases. |
| Ligaturing Arteries | ... | ... | ... | 2 " |
| Laparotomy (penetrating wound of intestines) | ... | ... | ... | 2 " |
| Tumours removed | ... | ... | ... | 7 " with 1 death. |

Jasin Hospital.

At the end of 1914 there were 34 cases under treatment.

There were 779 admissions of whom 188 came from Estates, 8 were private paying patients and 14 were Police Constables, the remainder were paupers. There were 98 deaths (89 males and 9 females) of which 37 occurred within 48 hours.

The chief diseases treated were:—

| | | | | |
|-----------------------|-----|------------|----|-----------------------------------|
| Malignant Malaria ... | 236 | cases with | 14 | deaths (10 died within 48 hours.) |
| Chronic Malaria ... | 20 | " " ... " | " | (... " " " ") |
| Beri-beri ... | 32 | " " 4 " | " | (3 " " " ") |
| Dysentery ... | 49 | " " 13 " | " | (4 " " " ") |
| Lobar Pneumonia ... | 65 | " " 22 " | " | (11 " " " ") |
| Ankylostomiasis ... | 51 | " " 8 " | " | (1 " " " ") |
| Phthisis ... | 21 | " " 12 " | " | (3 " " " ") |
| Chronic Nephritis ... | 15 | " " 8 " | " | (1 " " " ") |
| Injuries ... | 45 | " " 2 " | " | (1 " " " ") |
| Ulcers ... | 66 | " " ... " | " | (... " " " ") |

The above figures when compared with those of 1914 show that the number treated for Malaria, Dysentery, and Ankylostomiasis remain almost the same. There is a slight reduction in Beri-beri cases whereas Pneumonia cases show a considerable increase (from 39 to 65), Phthisis is also on the increase (from 14 to 21). The Estates sent in only 188 as compared with 328 in 1914. Out of these 188, Pneumonia cases were 43 and Malaria 59. The large proportion of Pneumonia cases among Estate coolies is noticeable. Forty-one deaths occurred among Estate coolies, 19 of whom died within 48 hours. The percentage of deaths to total treated was 12.05 per cent; excluding deaths within 48 hours it was 7.5 per cent.

2. One hundred and six minor operations were performed.

3. No small-pox occurred in Jasin District; only two cases of chicken-pox and one of measles; these were isolated and treated in the Quarantine Camp.

4. Fifty-eight post-mortem examinations were made, of these 11 were Police cases. Death was due to natural causes in 4 and in the remaining 7 to either violence or accident.

Hospital Buildings.—A few minor repairs were undertaken. The female section in Ward No. 1 has been enlarged by shifting the partition further into the male section. The buildings manifest "senile decay" everywhere. Telephone connection with Malacca was provided towards the end of the year.

Hospital Staff.—All the Hospital Attendants were subject to Malarial Fever during the year and some of them repeatedly so.

PRISON HOSPITAL.

On January 1st, there were no cases in Hospital. There were 57 admissions for the year with one death, a case of Empyema.

Vaccinations were pushed in the district and during the year 790 primary vaccinations were done among infants—of these 767 were successful, 11 were modified, failed 3, and not seen 9.

Re-vaccinations were continued and 7,246 performed. Of these there were 1,127 perfect, modified 176, and failed 117, while 5,826 were not seen. These were for the most part cases vaccinated on the public roads and far away kampongs.

MEDICAL MISSION.

As in past years the Medical Mission under Dr. ELSIE WARREN and her nurses did much good work among the poor in far away Malay kampongs and thus reached a class of patients who would otherwise have had to do without European treatment. She has kindly submitted her statistics for the year:—

Out of 5,440 attendances of patients 2,243 were Malays. Three hundred and fifty-four were treated for Malaria, 179 for Diseases of the Eye, 139 for Venereal Diseases, and 891 were Gynecological cases. One thousand four hundred and two attended for surgical dressings. In all 78 were admitted as In-patients. There were 33 maternity cases including some of abnormal character. There were 46 operations, mostly minor.

The staff have laboured, in some cases successfully, in preventing the spread of Infectious Diseases, the wrong feeding of infants, the opium habit, and criminal abortion. The great variety of the work done and the large number of cases show the good such an institution is doing in Malacca.

ESTATE HOSPITALS.

The following diseases were treated at the Bukit Asahan, Merlimau, Tembong Lendu and Diamond Jubilee Estate Hospitals:—

| | | |
|--------------------------|-----|-----------------------------|
| Malarial Fever | ... | 1,266 cases with 32 deaths. |
| Dysentery and Diarrhoea | ... | 379 " " 32 " |
| Pneumonia and Bronchitis | ... | 181 " " 28 " |
| Ankylostomiasis | ... | 201 " " 6 " |
| Ulcers | ... | 166 " " 2 " |

The total cases treated in these hospitals were 4,450 with 138 deaths, or a percentage of 3.1 on the total treated. In addition 569 out-patients were treated at the Bukit Asahan Hospital. These Estates have a visiting Medical Officer, the Bukit Asahan and Diamond Jubilee Estates having a resident Assistant Surgeon in addition.

Public Health Measures.

New drains have been made at Alor Gajah, Merlimau and Pengkalan Balak.

The Municipality had several drains repaired, Kubu Plain was filled in and cleaned and a swamp at Koon Cheng Road was filled in. In addition a main drain was completed at Kubu. All the works thus mentioned amounted in cost to \$927. With the view to combating Malaria in Malacca, I visited 19 Vernacular Schools and lectured to the boys on Malaria and mosquitoes. All the youngsters took a very intelligent interest in the subject and the Gurus promised to speak on the subject frequently to keep the matter in their minds. Within Municipal Limits the Sanitary Inspectors paid special attention to the eradication of breeding places of mosquitoes and notices were served out to house owners who had empty tins, etc., lying about their grounds. Every well was carefully examined and fish ordered to be put in. Lectures on Malaria are being translated into the Arabic character and printed in the Malay Newspaper, the *Utusan Malayu*, so as to reach as large a circle of Malays as possible. One thousand four hundred and seventy boys in schools throughout Malacca were examined and 270 were found with enlarged spleens.

With the view to forwarding vaccination among Malays I have spoken in the schools on its utility in the suppression of small-pox, a disease which they dread as it entails isolation in a Quarantine Camp and has a high mortality. Every boy in the Vernacular Schools has been vaccinated.

The Infantile Mortality of Malacca is terrible and "convulsions" heads the list of causes. With the view to its being lowered I have delivered lectures in Malay on the subject to the Penghulus in the Central, Jasin and Alor Gajah Districts at their respective head-quarters dwelling on the extreme prevalence of "convulsions," its very high death-rate, and pointing out that it is chiefly brought about by injudicious dietary and the feeding of infants, even the newly born, on soft boiled rice. This lecture has also been published in the *Utusan Malayu*.

In connection with the prevalence of Ankylostomiasis, at the suggestion of the Principal Civil Medical Officer, an examination of the fæces of every patient admitted into the Durian Daun and Jasin Hospitals was made from July 1st to December 31st with the following results:—

MALACCA.

Durian Daun Hospital.

| | | |
|---|-----|-------|
| 1. Number of patients examined ... | ... | 1,680 |
| 2. Number of patients found with ova of Ankylostoma ... | ... | 267 |
| 3. Number of patients found with ova of other worms ... | ... | 38 |

Jasin Hospital.

| | | |
|---|-----|-----|
| 1. Number of patients examined ... | ... | 204 |
| 2. Number found with Ankylostom ova ... | ... | 55 |
| 3. Number found with ova of other worms ... | ... | 47 |
| 4. Number admitted with symptoms of Ankylostomiasis ... | ... | 27 |
| 5. Total Admissions for Ankylostomiasis 1915 ... | ... | 51 |
| 6. Total deaths from Ankylostomiasis ... | ... | 8 |

APPENDIX E.

OUT-DOOR DISPENSARIES.

SINGAPORE.

(North Canal Road).

REPORT BY MR. P. C. FERNANDEZ, *Assistant Surgeon-in-charge.*

1. MR. F. CLARKE was in charge of the Dispensary until April 8th, 1915, when I relieved him.

2. The number of patients treated during the year was 7,394 and the number of visits paid was 26,170 giving a daily average attendance of 87.76.

Of the 7,394 patients treated 6,345 were paying patients; 642 were patients suffering from Venereal Diseases; 224 were Government servants and 183 were indigent patients.

3. The fees collected for the whole year amounted to \$2,030.60.

4. The nationalities of those treated were as follows:—

| | <i>Males.</i> | <i>Females.</i> |
|-------------------------|---------------|-----------------|
| Europeans | 8 | 2 |
| Eurasians | 145 | 207 |
| Chinese | 3,662 | 1,156 |
| Malays | 354 | 289 |
| Natives of India | 1,086 | 189 |
| Others | 205 | 91 |
| Total ... | 5,460 | 1,934 |

5. *Malaria*.—Four hundred and sixty-five cases were treated during the year. The majority of the cases gave a history of having been infected previous to their arrival in Singapore and these came mostly from Johore, Muar, Rhio, Malacca, Federated Malay States and India. Those infected in Singapore were chiefly from Tanjong Pagar, Pearls Hill, Pulau Brani, Kampong Malacca, Bukit Timah and Tanglin.

Blood Films and Sputa were examined only in suspected cases of Malaria and Phthisis respectively.

6. *Venereal Diseases*.—All cases were given free treatment and the majority of them presented themselves during the earlier stages of the disease.

Of the total treated there were:—

| | <i>Males.</i> | <i>Females.</i> | Total. |
|--------------------------|---------------|-----------------|--------|
| Syphilis, Primary | 224 | 53 | 277 |
| " Secondary | 87 | 19 | 106 |
| " Tertiary | 17 | — | 17 |
| Gonorrhœa | 41 | 3 | 44 |
| Soft Chancre | 81 | 6 | 87 |
| Bubo | 94 | 17 | 111 |

From their statements 97.4 per cent of the males contracted the disease in brothels.

7. *Ulcers*.—A great number of those treated were phagadenic—the result of improper treatment,—and a few of these cases had to be sent to hospital.

8. Four hundred and thirty-three children below 2 years of age were treated during the year and these suffered mostly from Fever, Bronchitis, Diarrhœa, Furunculosis, and Eczema.

Five hundred and four children from two to seven years old were treated and 155 of these, that is, about 30 per cent, suffered from round worms.

9. The principal diseases treated were:—

| | | | | | |
|-----------------------------|-----|-----|-----|-----|-------|
| Malaria ... | ... | ... | ... | ... | 465 |
| Venereal Diseases ... | ... | ... | ... | ... | 642 |
| Ulcers ... | ... | ... | ... | ... | 1,641 |
| Bronchitis ... | ... | ... | ... | ... | 328 |
| Fever (unspecified) ... | ... | ... | ... | ... | 310 |
| Parasitic Skin Diseases ... | ... | ... | ... | ... | 616 |

Jalan Klapa Out-Door Dispensary.REPORT BY MR. E. W. DE CRUZ, *Assistant Surgeon-in-charge.*

The total number of patients attending the Dispensary in 1915 was 3,625, the number of visits being 12,814.

The daily average was 43·14.

The total receipts for the year amounted to \$978.10.

The principal diseases treated were as follows:—

| | | | | | |
|-----------------------|-----|-----|-----|-----|-----|
| Malaria ... | ... | ... | ... | ... | 493 |
| Venereal Diseases ... | ... | ... | ... | ... | 367 |
| Bronchitis ... | ... | ... | ... | ... | 189 |
| Pyrexia ... | ... | ... | ... | ... | 226 |
| Minor Injuries ... | ... | ... | ... | ... | 580 |

The nationalities of those treated were:—

| | | | | <i>Males.</i> | <i>Females.</i> |
|----------------------|-----|-----|-----|-----------------|-----------------|
| | | | | — | — |
| Europeans ... | ... | ... | ... | 8 | 2 |
| Eurasians ... | ... | ... | ... | 99 | 129 |
| Chinese ... | ... | ... | ... | 988 | 209 |
| Malays ... | ... | ... | ... | 882 | 539 |
| Natives of India ... | ... | ... | ... | 587 | 135 |
| Others ... | ... | ... | ... | 42 | 5 |
| | | | | — | — |
| | | | | Total ... 2,606 | 1,019 |
| | | | | — | — |

I took over charge of this Dispensary from Mr. FERNANDEZ on 6th April, 1915.

Microscopical examination of blood films and sputa of doubtful cases was done throughout the year.

Of the 493 malarial fever cases, 255 had been infected outside Singapore, viz.:— 102 from Johore, 60 from the Federated Malay States and the remaining 93 cases from Java, Rhio, Borneo, Malacca, India, Muar and the neighbouring islands.

Singapore cases numbered 238. They were inhabitants of Bukit Timah, Upper Serangoon and Gaylang districts.

Two hundred and thirty-nine cases of Syphilis were treated, 165 of which were of the Secondary type. Out of a total of 367 Venereal Diseases treated, 252 contracted the disease in brothels.

Minor Injuries:—These cases mostly come from the neighbouring saw-mills and pineapple factories. Many seek treatment immediately on receipt of the injury and consequently the results are very satisfactory—the majority of the wounds healing within a week.

The number of children under one year of age who were treated in this Dispensary was 108 and of these 44 suffered from Lung Diseases (Bronchitis and Broncho-Pneumonia). There were 25 cases of intestinal complaints and the remaining 39 suffered from Pyrexia (dentition), Convulsions, Pemphigus, Scabies, etc.

PENANG.

Chowrasta Dispensary.

1. The Dispensary was opened for 310 days during the year, and the number of cases treated was 5,878 as against 6,628 in previous year.

The aggregate number of visits made by patients was 14,573 giving a daily average attendance of 47'00.

2. The total receipts for the year amounted to \$736.35 as against \$736.65 in 1914.

3. The principal diseases treated were as follows:—

| | | | | | |
|-----------------------------|-----|-----|-----|-----|-------|
| Malaria | ... | ... | ... | ... | 455 |
| Pyrexia (uncertain variety) | ... | ... | ... | ... | 412 |
| Rheumatism | ... | ... | ... | ... | 597 |
| Syphilis | ... | ... | ... | ... | 251 |
| Bronchitis | ... | ... | ... | ... | 252 |
| Ulcers | ... | ... | ... | ... | 1,276 |
| Injuries | ... | ... | ... | ... | 366 |

4. The nationalities of the patients were:—

| | | | | | |
|------------------|-----|-----|-----|-----|-------|
| Europeans | ... | ... | ... | ... | 4 |
| Eurasians | ... | ... | ... | ... | 307 |
| Chinese | ... | ... | ... | ... | 2,643 |
| Malays | ... | ... | ... | ... | 693 |
| Natives of India | ... | ... | ... | ... | 2,149 |
| Others | ... | ... | ... | ... | 82 |

5. Mr. F. W. CLARKE relieved Mr. J. H. L. WESTERHOUT on the 8th April, as Assistant Surgeon-in-charge.

Out-Door Dispensary, Lumut.

Number of cases treated was 643 as compared with 522 last year.

The daily average number of visits for the year was 3'25 as compared with 2'68 the previous year.

Of the 643 cases treated, 260 were suffering from Malarial Fever. Of the total, 620 cases were from the district of Dindings and 23 from Sitiawan.

The receipts for the year were \$99.70.

Out-Door Dispensary, Balik Pulau.

During the year 829 patients sought treatment as compared with 879 the preceding year.

Of these 829 patients, 198 were Government servants as compared with 196 the preceding year.

The average number of visits per day was 4'07 as compared with 4'92 the preceding year, while the receipts for the year were \$115.15 as compared with \$123.15.

Out-Door Dispensary, Butterworth.

The total number of cases treated during the year was 838 males and 101 females, making a total of 939.

Out-Door Dispensary, Bukit Mertajam.

Number of cases treated was 2,537 as compared with 3,311 the previous year.

Out-Door Dispensary, Sungai Bakap.

One thousand one hundred and sixty-eight patients were treated during the year as compared with 1,272 in the last year. The collection amounted to \$184.20 as compared with \$203.30 in 1914.

Out-Door Dispensary, Nibong Tebal.

1. *Buildings.*—The witness room of the Court-house at Nibong Tebal has been occupied from 8 to 10 A.M., the dispensing hours, three days a week.

2. *Staff.*—The Assistant Surgeon and the junior dresser from Sungei Bakap Hospital attended the Dispensary.

Work done.—The Dispensary was opened 156 days in the year. Eight hundred and seventy-four patients attended the Dispensary as compared with 855 in the last year. Of these, 467 were Government officers, 353 paying and 54 indigent patients. The daily average number of visits was 10.68 as compared with 10.61 in 1914. The collection amounted to \$85 as compared with \$70.30 in the previous year. The drugs and dressings were supplied from the Sungei Bakap Hospital.

The nationalities of the out-patients treated were as follows:—

| <i>Nationalities.</i> | <i>Males.</i> | <i>Females.</i> |
|-------------------------|---------------|-----------------|
| Europeans | 11 | 1 |
| Eurasians | 5 | 3 |
| Chinese | 225 | 83 |
| Malays | 119 | 15 |
| Natives of India | 284 | 100 |
| Others | 25 | 3 |
| Total | 669 | 205 |

The principal diseases treated were as follows:—

| <i>Diseases.</i> | <i>No. of cases.</i> |
|----------------------|----------------------|
| Anæmia | 14 |
| Diarrhœa | 15 |
| Dysentery | 12 |
| Helminthiasis | 15 |
| Malaria | 104 |
| Gonorrhœa | 15 |
| Soft Chancre | 6 |
| Syphilis | 37 |
| Wounds | 159 |

MALACCA OUT-DOOR DISPENSARY.

Three thousand one hundred and thirty-two patients were treated as contrasted with 2,984 the preceding year.

Total receipts for the year was \$312 as against \$378.45 in 1914.

Nationality of those attending:—

| <i>Nationality of those attending:—</i> | <i>Males.</i> | <i>Females.</i> |
|---|---------------|-----------------|
| Europeans | 62 | 50 |
| Eurasians | 555 | 534 |
| Chinese | 469 | 176 |
| Malays | 788 | 97 |
| Natives of India | 340 | 60 |
| Others | ... | 1 |
| | 2,214 | 918 |
| | 3,132 | |

The chief diseases treated were as follows:—

| | | | | | |
|------------------------|-----|-----|-----|-----|-----|
| Beri-beri | ... | ... | ... | ... | 53 |
| Dysentery | ... | ... | ... | ... | 24 |
| Rheumatism | ... | ... | ... | ... | 164 |
| Malaria | ... | ... | ... | ... | 132 |
| Debility after Malaria | ... | ... | ... | ... | 79 |
| Anæmia | ... | ... | ... | ... | 99 |
| Conjunctivitis | ... | ... | ... | ... | 72 |
| Phthisis | ... | ... | ... | ... | 21 |
| Diarrhœa | ... | ... | ... | ... | 130 |
| Skin Diseases | ... | ... | ... | ... | 149 |
| Ulcers | ... | ... | ... | ... | 199 |
| Helminthiasis | ... | ... | ... | ... | 84 |

jasin Out-Door Dispensary.

Four hundred and seventeen cases (356 males and 61 females) sought treatment, the total receipts amounting to \$47.45.

The chief diseases treated were:—

| | | | | | |
|----------------|-----|-----|-----|-----|-----|
| Beri-beri | ... | ... | ... | ... | 14 |
| Malarial Fever | ... | ... | ... | ... | 161 |
| Gonorrhœa | ... | ... | ... | ... | 6 |
| Syphilis | ... | ... | ... | ... | 18 |
| Skin Diseases | ... | ... | ... | ... | 19 |
| Bronchitis | ... | ... | ... | ... | 24 |
| Abscess | ... | ... | ... | ... | 7 |
| Ulcers | ... | ... | ... | ... | 33 |

Four hundred and ninety-four visits in all were paid by these patients. There were 207 Government officers, 139 paying cases and 71 paupers.

Alor Gajah Dispensary.

Dresser F. NONIS was in charge to February 1st when he was relieved by Dresser TAMBY KEECHIL. The old temporary small-pox sheds were pulled down and burnt and a new small temporary shed erected in July. The Dispensary and Dresser's quarters were re-roofed and minor repairs carried out.

During the year 355 cases received treatment in the Out-patient Dispensary—males 325, females 30.

The receipts amounted to \$17.90.

The chief diseases treated were:—

| | | | | <i>Cases.</i> |
|----------------|-----|-----|-----|---------------|
| Malarial Fever | ... | ... | ... | 128 |
| Ulcers | ... | ... | ... | 63 |
| Wounds | ... | ... | ... | 26 |
| Rheumatism | ... | ... | ... | 28 |

APPENDIX F.

QUARANTINE.

SINGAPORE.

REPORT BY DR. G. E. BROOKE, M.A., L.R.C.P., D.P.H., *Chief Health Officer.*

The period in review (1915) has been the most abnormal of any year since my arrival fourteen years ago. In the first place, for the first three months of the year no immigration at all was allowed, and only limited immigration until the first week in July, when the prohibition was removed. In the second place, the practical absence of infectious disease from all the chief ports of the East is without parallel for several decades past. From 3rd September for 5 weeks not a single port was in quarantine in the weekly *Gazette* Statement. This is I think unique. In the third place, owing to war conditions the return pilgrim season from Mecca had been accelerated into 1914; and no pilgrim sailings left the Straits Settlements for the 1915 pilgrimage at all.

The combination of these three factors enormously curtailed both the shipping and quarantine station work.

A comparison of shipping data for 1913, 1914, and 1915 will be of interest in this connexion:—

| | 1913. | 1914. | 1915. |
|--|---------|---------|---------|
| Visits to ships ... | 1,818 | 1,803 | 821 |
| Crew and passengers examined ... | 506,923 | 402,583 | 200,978 |
| Vaccinations at Quarantine Station ... | 24,276 | 7,354 | 2,152 |
| Passengers sent to Quarantine Station | 56,838 | 18,193 | 3,335 |

The number of infected ships were ten:—

Small-pox infections:—

| | | | | |
|-------------------|-----|-----|-----|---|
| From Calcutta ... | ... | ... | ... | 1 |
| „ Negapatam ... | ... | ... | ... | 2 |
| „ Hongkong ... | ... | ... | ... | 3 |

Cholera infections:—

| | | | | | |
|-----------|---|-----|-----|-----|---------|
| From Deli | } | ... | ... | ... | 1 each. |
| „ Rangoon | | | | | |
| „ Batavia | | | | | |

Plague infections:—

| | | | | |
|-----------------|-----|-----|-----|---|
| From Bombay ... | ... | ... | ... | 1 |
|-----------------|-----|-----|-----|---|

The disinfecting launches (*Hygeia* and *Crow*) were used as follows:—

For infected ships 7 times; for other ships 129 times; and for taking police reliefs and stores to the Quarantine Station, 11 times. Total 147.

Thirty-four dead bodies in ships or sampans were inspected, and either passed for burial or sent for post-mortem.

Fifty-four water-boats were examined including four new ones.

Visits were also paid to the water-reservoirs of Messrs. HAMMER & CO., at Telok Blangah and Pasir Panjang, which were examined and the water tested both bacteriologically and analytically. The former reservoir is only used for boiler water and a special large steam water-boat is reserved for that purpose. The water seems excellent by chemical analysis, but as it contains abundant lactose fermenters in 0.5 c.c. it is quite unsuitable for drinking purposes. The Pasir Panjang Reservoir is not large but is well situated and the water is excellent for drinking purposes.

Messrs. HAMMER & CO. have lately built several new steel steam lighters and their fleet is now well able to cope with the demand for drinking water, which they supply to all the larger shipping of the port. About 70 per cent of their supply is obtained from the Singapore Municipal Mains (the water of which maintains a high standard of purity). The remaining 30 per cent of their water-cargo is derived from three private reservoirs—at Pasir Panjang, at Blakang Mati, and at Pulau Bukum—which are kept under observation by the Health Department.

A most interesting, though unfortunately fatal, situation occurred in the harbour on December 23rd. S.S. "*Jacob*," a Dutch boat belonging to the K. P. M., sailed from Swatow on the 16th December with a full cargo in her four holds which were battened down until she began to work cargo on the 23rd (7 days). She also carried 1,826 Chinese coolie passengers, distributed in her four tween-decks. These passengers were quite well during the voyage and left the ship after examination and pratique in Singapore.

After anchoring, the crew went down to the tween-decks to open the hatches of the lower holds.

No. 2 hold contained—in addition to a small amount of salt fish, dried rice cake, brown sugar, and soya beans—over 1,000 tubs of fresh oranges and nearly 300 baskets of garlic. On taking off the hatch and going down into this hold, the hatch coolie fell down insensible. A Chinese tally clerk, who went to his assistance, did the same. The chief officer and others attempted to rescue them but had to abandon the attempt for nearly a quarter of an hour.

When I reached the scene shortly afterwards I found that artificial respiration was being tried on the 2 men who were, however, quite dead. There was no cyanosis. An examination of the hold disclosed the fact that it was furnished with 2 ventilators. The after-one had been permanently closed by deck-planking for a long time. The forward one ended in a sixfoot shaft above the main deck with a fixed top of the mushroom type. No down-draught had therefore reached the hold for 7 days—the only ventilation being the one indifferent "uptake."

Respiration and fermentation processes in the oranges and garlic had not only resulted in the conversion of practically the whole of the atmospheric oxygen into CO₂, but had even formed an additional amount of CO₂. This was disclosed by the analysis of a sample of the air which I took from the lowest part of the hold:—

| | | | | | |
|----------------|-----|-----|-----|-----|--------------------|
| Carbon dioxide | ... | ... | ... | ... | 22.55 |
| Oxygen | ... | ... | ... | ... | 1.86 |
| Marsh gas | ... | ... | ... | ... | .30 |
| Nitrogen | ... | ... | ... | ... | 75.29 |
| | | | | | <hr/> 100.00 <hr/> |

I interviewed the Agents with the view to improvement of their ship ventilation, and I understand that they are going to make a trial of the double-action ventilator cowls which I devised last year.

Quarantine Station.

During the nine months (259 days) that the Station had been re-opened for quarantine purposes, 3,335 deck passengers were landed from 27 ships for purposes of observation; 63 patients were admitted to hospital; and temporary accommodation was provided for 508 Government repatriation coolies. The maximum number on any one day was 1,201 (2-11-15).

Admissions to hospital during the quarantine year (April 17th to December 31st) were 63. Of these, Plague and Cholera only furnished one case each; while there were 3 cases of Small-pox, four of Chicken-pox, and six of Measles.

The average daily number of sick in hospital was 2.26.

Amongst those treated, seven died, giving a death-rate of 11.1 per cent.

Amongst other contacts, one died in camp, untreated.

Deaths also occurred on the Station, amongst Singapore residents, as follows:—
Staff coolies, three; Government repatriation coolies, three; Fifth Light Infantry, one.

Five corpses were sent for post-mortem and burial, from ships or shore.

The number of vaccinations performed on the Station were 2,152.

During the year, 502,500 gallons of water were distilled with a consumption of 450,000 billets of firewood. In addition, 793,184 gallons of Singapore water were obtained by steam water-boat and pumped into the reservoir.

There were 173 rainy days, giving a total rainfall of 83.45 inches, and a maximum day's figure of 4.09 inches (6-11-15).

Very few public works were undertaken. The following services begun in 1914, were completed during the year:—

Extension of Police Barracks; New Lock-up; New Nurses' Quarters; two New Camp Wards; and the Pier Pontoon.

In addition, a much needed new Dispensary and Office was built in the hospital compound, to take the place of the old Dispensary which was housed in a bath-room of the Resident Medical Officer's house.

A new Ferro-concrete Roof was constructed on the service reservoir, and was almost completed by the end of the year. This will more efficiently protect our water supply.

The subject of delivery of cooked food from the kitchen, presented a considerable problem. After several surveys, it was decided to run a trolley line at the kitchen level following the contours of the island to its furthest extremity. The necessary cuttings and embankments were completed during the year and the lines laid. It should thus be ready for use within a few months; and some trolleys and receptacles have been already provided.

Office Work.

The following forms, etc., were issued:—

| | | | | | |
|--|-----|-----|-----|-----|-------|
| Bills of Health | ... | ... | ... | ... | 1,563 |
| Permits to import or export Coffins | ... | ... | ... | ... | 29 |
| Undertakings to report to Municipal Health Officer | ... | ... | ... | ... | 57 |
| Bonds | ... | ... | ... | ... | 8 |
| Disinfection Certificates | ... | ... | ... | ... | 125 |

One of the most momentous of the events which have taken place in the department for several years past, was the passing of a new Quarantine and Prevention of Diseases Ordinance (XXXIII of 1915), and a new set of Rules thereunder—which became law on the 31st December. It had been felt for some years that the "Prevention of Disease" and kindred Ordinances were sorely in need of revision and consolidation. A Committee was therefore appointed in July, 1912, under the Presidency of the Attorney-General and comprising also, the Hon'ble the Principal Civil Medical Officer, the Municipal Health Officer and myself.

Weekly Committee Meetings were held regularly for about 4 months, and the draft then drawn up was circulated amongst many Health Officers of British ports in the East, for the favour of their comments.

Further meetings were held and the new Ordinance and Rules finally emerged in 1915. They contained the old Ordinance and Rules brought up to date; and the Ordinance incorporates various relative sections dealing with the Prevention of Disease on land, removed from the "Municipal Ordinance." It also consolidates the subject matter of the following Ordinances which it repeals:—

Vaccination Ordinance 1868; Quarantine and Prevention of Disease Ordinance 1886; Prevention of Disease Ordinance 1894; Diseased Cattle Ordinance 1894; Plague Ordinance 1899; Plague Ordinance (Amendment) 1904; Quarantine and Prevention of Disease Ordinance (Amendment) 1904; Infectious Diseases Ordinance 1913.

The Ordinance passed its third reading before the Legislative Council on 27th August, 1915; and both the Ordinance and Rules were assented to by His Excellency the Governor on 28th December, being published in the *Gazette* on 31st December, when they came into operation.

A few points of interest or novelty connected with the new Ordinance may here be quoted:—

- (a) An attempt has been made (as far as I know, for the first time in any statute-book) to lay down a standard of epidemicity. Such a standard must of course be an arbitrary one, but is most useful as a routine indication for the imposition of quarantine restrictions. If generally adopted it would much simplify matters for the Commercial world. The standard now chosen was only adopted after weekly returns had been charted, and infected arrivals noted, from all the chief Eastern ports, for a period of over 10 years.
- (b) Another new feature is the recognition as "suspected," of any port at which infectious disease exists in a merely "sporadic" state.
- (c) The vaccination of unprotected immigrants from China and India is now insisted on.
- (d) Considerable discretionary powers are given for the detention and treatment of contagious ophthalmia, trachoma, phthisis, syphilis, malaria, etc., occurring amongst immigrants; and for the repatriation of those whose entry would be undesirable owing to chronic diseased conditions.
- (e) A new section has been added dealing with nuisances on ships, and giving wide powers for the abatement of them.
- (f) A new Bill of Health has been introduced. The stereotyped and more or less universal form which was previously in use, gave a minimum of information and a maximum of verbiage. It is hoped that the form now adopted will be of some real and practical use to the Health Officers in other ports.
- (g) The principle is now recognized of not requiring quarantine restrictions at subsequent ports in the Colony in the case of certain ships which have been examined and given pratique at their first port of arrival. Such a permit is not given to immigrant or other classes of suspicious ships; but, generally speaking, mail steamers and cargo-boats will come under the category, and such a privilege will be of great commercial advantage to the shipping firms.

Extra-Municipal Work.

On the 31st March, the Assistant Health Officer (Extra-Municipal) left for Europe to receive a temporary commission in the R. A. M. C. With the staff at my disposal I have not been able to carry out much routine duty in the country.

QUARANTINE, PENANG.

REPORT BY DR. F. R. SAYERS, B.A., M.D., D. P. H., *Port Health Officer, Penang.*

Port.—During the year 405 visits were paid to ships and 35,348 crew units and 113,314 coolies, passengers and pilgrims were inspected.

These numbers are the lowest recorded for the past 14 years.

Eight permits to bury were issued for corpses on ships and tongkangs.

One returning "pilgrim ship" was inspected. She was "infected" with Small-pox. The pilgrims on board numbering 343 were quarantined.

Not a "pilgrim ship" was cleared for the Hadjaz in 1915.

Forty-nine "Indian Immigration Ships" arrived and 21,383 "coolies" were sent for vaccination to the Quarantine Station.

Two hundred and eighty-four "Chinese Immigrants Ships" arrived and 26,698 "Immigrants" were inspected on them.

Six "infected ships" were inspected. The infection being five Small-pox and one Cholera.

The Disinfecting Launch *Kite* was used twenty times, chiefly in December owing to the Netherlands Indies authorities imposing quarantine restrictions for plague against Penang on the occurrence of two cases of plague in George Town during the first week in December.

The delay and the cost of disinfection two or three times weekly proved a heavy charge on the profits of the small local boats involved.

Nineteen Certificates of Disinfections were issued.

Seven permits for the import or export of corpses to and from the Colony for burial were issued.

Three hundred and ninety-six Bills of Health were issued.

Quarantine Station.

The total number detained for observation throughout the year was 23,176 landed from 84 vessels.

Of this number 21,383 were "Indian Immigration Coolies," 345 were pilgrims returning from Jeddah and 1,448 were ordinary deck-passengers.

The following diseases were treated:—

| | <i>Cases.</i> | | | | |
|----------------|---------------|-----|-----|-----|-------|
| | — | | | | |
| Small-pox | ... | ... | ... | ... | 3 |
| Chicken-pox | ... | ... | ... | ... | 10 |
| Measles | ... | ... | ... | ... | 12 |
| Other diseases | ... | ... | ... | ... | 1,345 |

The deaths amongst these cases amounted to 11 giving a death-rate of .008 per cent.

Small-pox.—But three cases were treated during the year. Of the ships bearing these cases two arrived from Calcutta and one from Negapatam.

Neither Cholera nor Plague was present at the Station in 1915.

Vaccination.—The total number vaccinated was 21,542. The usual high percentage of success was maintained.

HEANLEY'S lymph was used throughout the year.

Statement *C* gives statistics for 1915.

The Jewel Filter was cleaned and recharged in July.

Routine analysis of the water-supply shows a continued excellence.

Public Works.—Quarters for Lay Superintendent were built during the year and the buildings and camps painted throughout.

After experiments with different coloured paints as regard their effect on the temperature of the camp the roofs of the camps were painted white to protect the galvanized iron.

Staff.—Owing to exigencies of the service there has not been a Medical Officer at the station since 6th March, 1915.

The acting Lay Superintendent, a Reservist, left on being called to rejoin his regiment; and the post still remains vacant. The Senior Dresser, GOVINDASAMY, acted for these officers.

The health of the staff continues to be unsatisfactory. Of a total of 49 there were 27 treated for Malaria. Seven of these 27 were previously infected. Many had several attacks.

Anti-malarial measures of a temporary character were carried out whenever the services of the limited staff were available.

Meteorology.—The total rainfall for the year was 96.99 inches; the greatest amount in any day being 7 inches and the total number of rainy days 137.

Statistics.—Statement *A* shows the numbers of ship's crew units and passengers (including "coolies" and "pilgrims") inspected in each month of the year.

Statement *B* shows the number of vessels arriving each month from the various ports which were subject to "Quarantine Restrictions."

Statement *D* shows daily average at the Quarantine Station.

Statement *E* shows work done at the Quarantine Station during each month of the year.

Statement *F* is a condensed Report of 14 years' Quarantine Work.

STATEMENT A.

| MONTH. | | | | Ships. | Crews. | Passengers. |
|-----------|-----|-----|-----|--------|--------|-------------|
| January | ... | ... | ... | 42 | 2,410 | 1,409 |
| February | ... | ... | ... | 38 | 3,538 | 2,515 |
| March | ... | ... | ... | 72 | 4,470 | 5,425 |
| April | ... | ... | ... | 46 | 3,314 | 8,167 |
| May | ... | ... | ... | 53 | 4,611 | 11,792 |
| June | ... | ... | ... | 40 | 3,503 | 14,132 |
| July | ... | ... | ... | 26 | 2,935 | 14,897 |
| August | ... | ... | ... | 13 | 1,746 | 11,409 |
| September | ... | ... | ... | 15 | 1,951 | 16,861 |
| October | ... | ... | ... | 16 | 1,941 | 12,075 |
| November | ... | ... | ... | 24 | 2,701 | 8,628 |
| December | ... | ... | ... | 20 | 2,228 | 6,204 |
| Total ... | | | | 405 | 35,348 | 113,314 |

STATEMENT B.

| PORTS. | January. | February. | March. | April. | May. | June. | July. | August. | September. | October. | November. | December. | TOTAL. |
|---------------------|----------|-----------|--------|--------|------|-------|-------|---------|------------|----------|-----------|-----------|--------|
| Trang ... | 16 | 16 | 15 | ... | ... | 12 | 6 | ... | ... | ... | ... | ... | 65 |
| Tongkah ... | 10 | 9 | 12 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 31 |
| Hongkong ... | 4 | 1 | ... | 1 | 7 | 5 | 3 | 5 | 3 | 6 | 7 | 7 | 49 |
| Madras ... | 4 | 3 | 5 | 3 | 4 | 5 | 6 | 5 | 5 | 4 | 3 | 2 | 49 |
| Negapatam ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Calcutta ... | 2 | 6 | 9 | 7 | 7 | 7 | 7 | ... | ... | ... | ... | ... | 45 |
| Sourabaya ... | 1 | 2 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 |
| Batavia ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 6 | 5 | 13 |
| Jeddah ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| Amoy and Swatow ... | ... | 1 | ... | 2 | 2 | 5 | 2 | 2 | 5 | 4 | 5 | 3 | 31 |
| Pungah ... | ... | ... | 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 |
| Teluk Anson ... | ... | ... | 20 | 25 | 26 | ... | ... | ... | ... | ... | ... | ... | 73 |
| Bombay ... | ... | ... | 1 | ... | 2 | 3 | 2 | ... | ... | ... | ... | ... | 8 |
| Bagan Datoh ... | ... | ... | 2 | 5 | 5 | ... | ... | ... | ... | ... | ... | ... | 12 |
| Singapore ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 |

STATEMENT C.

VACCINATION REPORT for 1915.

| | Total number vaccinated. | Successful. | Percentage of Success. |
|--|--------------------------|-------------|------------------------|
| Total Number done | 22,562 | 19,310 | 89.5 |
| Those bearing less than six marks | 10,493 | 8,964 | 85.4 |
| Those bearing six marks | 9,634 | 8,060 | 83.7 |
| Those with marks of previous Small-pox | 1,001 | 767 | 76.6 |
| Infants unvaccinated | 553 | 547 | 98.9 |

STATEMENT D.

DAILY AVERAGE AT THE NEW QUARANTINE STATION, PULAU JEREJAK, IN 1915.

| | |
|------------------|-----|
| January | 14 |
| February | 19 |
| March | 30 |
| April | 41 |
| May | 83 |
| June | 112 |
| July | 134 |
| August | 99 |
| September | 109 |
| October | 60 |
| November | 27 |
| December | 34 |

STATEMENT E.

Shows the work done at the New Quarantine Station, Pulau Jerejak, in each month of the Year.

| | Jan. | Feb. | Mar. | Apl. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| Vessels | 4 | 7 | 12 | 8 | 9 | 12 | 12 | 6 | 5 | 4 | 3 | 2 |
| Passengers and coolies admitted | 436 | 540 | 941 | 1,248 | 2,584 | 3,388 | 3,873 | 3,071 | 3,291 | 1,886 | 834 | 1,084 |
| Daily average | 14 | 19 | 30 | 41 | 83 | 112 | 134 | 99 | 109 | 60 | 27 | 34 |
| Small-pox admitted. | nil. | nil. | 1 | nil. | 1 | nil. | nil. | nil. | nil. | nil. | nil. | nil. |
| <i>Cases.</i> | | | | | | | | | | | | |
| Small-pox fresh cases | nil. | nil. | nil. | nil. | nil. | nil. | nil. | 1 | nil. | nil. | nil. | nil. |
| Cholera admitted | nil. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Cholera fresh cases | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Plague admitted | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Plague fresh cases | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Chicken-pox | 1 | 1 | nil. | 1 | 3 | 2 | 1 | nil. | 1 | nil. | nil. | nil. |
| Measles | ... | ... | ... | ... | 4 | ... | 2 | 3 | 2 | 1 | ... | ... |
| Deaths, Small-pox | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| " Cholera | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| " Plague | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Vaccinations | 64 | 247 | 780 | 1,165 | 2,386 | 3,269 | 3,526 | 3,058 | 3,281 | 1,878 | 828 | 1,080 |
| Total Deaths from causes enumerated above | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... |

STATEMENT F.

Condensed Report of Fourteen Years' Work—Harbour and Quarantine.

| — | | Vessels. | Units of crews and passengers inspected. | Passengers landed on Quarantine Station. | Small-pox treated. | Cholera treated. | Plague treated. | Daily average, Quarantine Station. | Vaccinations. |
|------|-----|----------|--|--|--------------------|------------------|-----------------|------------------------------------|---------------|
| 1901 | ... | 1,309 | 200,186 | 2,188 | 3 | 3 | 1 | ... | ... |
| 1902 | ... | 1,000 | 180,632 | 5,755 | 5 | 42 | ... | ... | ... |
| 1903 | ... | 957 | 180,251 | 1,688 | 9 | 22 | 1 | ... | ... |
| 1904 | ... | 748 | 184,691 | 2,217 | 16 | 5 | 2 | ... | ... |
| 1905 | ... | 869 | 214,136 | 10,406 | 10 | 1 | ... | 171 | ... |
| 1906 | ... | 675 | 204,988 | 23,288 | 16 | 8 | 2 | 461 | 6,490 |
| 1907 | ... | 633 | 219,839 | 17,650 | 4 | 24 | 1 | 116 | 5,652 |
| 1908 | ... | 1,205 | 176,119 | 21,175 | 51 | 9 | 2 | 366 | 5,691 |
| 1909 | ... | 503 | 161,971 | 23,058 | 25 | 2 | 1 | 359 | 5,614 |
| 1910 | ... | 526 | 217,967 | 71,876 | 62 | 33 | 2 | 1,584 | 12,205 |
| 1911 | ... | 1,144 | 277,151 | 134,957 | 109 | 387 | 1 | 3,740 | 63,988 |
| 1912 | ... | 634 | 287,373 | 55,493 | 75 | 4 | 4 | 1,111 | 38,297 |
| 1913 | ... | 818 | 272,473 | 53,937 | 11 | 12 | 1 | 120 | 37,276 |
| 1914 | ... | 1,040 | 215,067 | 48,399 | 171 | 9 | nil. | 116 | 32,606 |
| 1915 | ... | 405 | 148,662 | 23,176 | 3 | nil. | nil. | 478 | 21,562 |

APPENDIX G.

GOVERNMENT ANALYST'S DEPARTMENT, SINGAPORE.

REPORT BY FRANKLAND DENT, M. Sc., Ph. D., F. I. C., *Government Analyst, S. S.*

The following table shows the revenue and expenditure for the year 1915, and, for comparison, the revenue collected during the preceding year:—

| Revenue. | 1914. | 1915. | Expenditure, 1915. | |
|--------------------------|-----------|-----------|---|-----------|
| <i>Fees of Office.</i> | \$ c. | \$ c. | | \$ c. |
| Petroleum Inspection ... | 4,275 00 | 3,970 00 | Personal Emoluments | 13,751 14 |
| Miscellaneous ... | 8,664 50 | 8,885 00 | Stores from England | a 500 00 |
| | | | Miscellaneous ... | 362 08 |
| Total ... | 12,939 50 | 12,855 00 | Transport, Travelling & Personal Allowances | 242 01 |
| By sales of Pyridine ... | 1,072 00 | 1,130 00 | Total ... | 14,855 23 |

(a) Estimated.

Petroleum.

(a) *Kerosene*.—The following table gives a comparison between the quantities tested on importation into the Island of Singapore during the years 1914 and 1915:—

| Description of Oil. | 1914. | | | 1915. | | |
|------------------------------|-------------------------|---------|---------|-------------------------|---------|-------|
| | Number of Consignments. | Tins. | Tons. | Number of Consignments. | Tins. | Tons. |
| <i>Case Oil.</i> | | | | | | |
| American Oil. { Devoe's ... | 5 | 58,600 | ... | 3 | 14,520 | ... |
| Oil. { S. Arrow ... | 5 | 123,400 | ... | 3 | 46,000 | ... |
| { Crown ... | 62 | 242,381 | ... | 73 | 292,649 | ... |
| { Dragon ... | 42 | 162,781 | ... | 33 | 120,000 | ... |
| { Cross ... | 14 | 19,260 | ... | 10 | 13,500 | ... |
| Langkat Oil. { Rising Sun... | 11 | 11,110 | ... | 22 | 34,947 | ... |
| { Lamp Glass.. | 8 | 6,900 | ... | 5 | 6,000 | ... |
| { Fish ... | 11 | 11,648 | ... | 7 | 5,100 | ... |
| { Sumatra ... | 4 | 5,170 | ... | ... | ... | ... |
| { Coast Light.. | ... | ... | ... | 1 | 200 | ... |
| Borneo Oil ... | 15 | 4,700 | ... | 6 | 2,501 | ... |
| <i>Bulk Oil.</i> | | | | | | |
| Pulau Samboe ... | 3 | ... | 118.132 | 3 | ... | 118.9 |
| Pulau Bukom ... | 16 | ... | 707.802 | 3 | ... | 118.5 |
| Total ... | 198 | 645,950 | 825.934 | 169 | 535,417 | 237.4 |

In addition 3 consignments of 112,000 tins of American kerosene were imported into Singapore in accordance with Rule 3 under the Petroleum Ordinance, having been previously tested at Penang.

Forty-one consignments were tested for flash-point and certificates issued for kerosene consigned to Sarawak and Hongkong.

Thirteen samples were sent in for special flash-point determinations and other tests.

(b) *Bensine*.—The following table gives a comparison between the quantities imported into the Island of Singapore during the years 1914 and 1915:—

| Nature of Receptacles. | 1914 (185 consignments). | | 1915 (188 consignments). | |
|------------------------|--------------------------|----------|--------------------------|----------|
| | Number. | Gallons. | Number. | Gallons. |
| 2-gallon cans ... | 106,413 | 112,826 | 119,635 | 239,270 |
| 4-gallon drums ... | 46,593 | 186,372 | 37,506 | 150,024 |
| Total ... | 153,006 | 399,198 | 157,141 | 389,294 |

The receptacles were in all cases examined to see whether they fulfilled the conditions laid down in the Rules and By-laws under the Petroleum Ordinance.

(c) *Mineral Turpene*.—Six hundred tins were imported into Singapore and tested for flash-point.

(d) *Liquid Fuel*.—Eighteen consignments of 28,458.344 tons were tested on importation into Pulau Bukom.

Fourteen samples were examined as to whether they were in accordance with the Admiralty specification as regards flash-point and the amount of water present in the oil.

(e) Testing vessels that had carried petroleum for Dangerous Vapour:—

Forty-eight vessels as against 42 in 1914, 29 in 1913 and 17 in 1912, were tested for inflammable vapour by means of Redwood's Standard Instrument, either before being allowed to enter port limits under Rule 23 of the Petroleum Ordinance or to enter dry dock under By-law 77 of "The Straits Settlements Ports Ordinance 1912."

Explosives.

The consignments of explosives were tested on importation into Singapore in accordance with the Rules under "The Arms and Explosives Ordinance 1915." All passed the prescribed tests.

The following table gives the details of these, and, for the purpose of comparison, those imported and tested during the two preceding years:—

| Year. | Number of consignments. | Number of packages of 50 lbs. each. | | | |
|----------|-------------------------|-------------------------------------|------------|--------------------|--------|
| | | Dynamite. | Gelignite. | Blasting Gelatine. | Total. |
| 1913 ... | 13 | 1,705 | 3,430 | 1,000 | 6,135 |
| 1914 ... | 8 | 875 | 2,152 | 600 | 3,627 |
| 1915 ... | 10 | 600 | 2,934 | 1,350 | 4,884 |

In addition to the above 103 cases Detonators and 20 cases Tonite Cartridges were imported as against 132 cases Detonators in 1914.

Minerals, etc.

Thirty-eight samples of metalliferous minerals of which 27 of Wolfram ore were assayed during the year as against 10 samples in 1914.

Thirty samples of various minerals were also sent in for identification.

Counterfeit Coins.

Eleven sets of exhibits in connection with counterfeiting Straits coins or with being in possession of, or attempting to pass the same, were received from the Police for examination.

Another case occurred in Johore which necessitated the attendance there of the Assistant Government Analyst for the purpose of giving evidence.

They comprised two hundred and ninety-eight 20-cent pieces and seventy-five 10-cent pieces together with a large number of counterfeiting implements, moulds, etc.

In addition, exhibits in a case of being in possession of 108 counterfeit (Britannia metal) British Trade Dollars were sent in.

Liquors.

Two hundred and sixty-five samples from the Monopolies Department and 2 samples from private firms were sent in for the determination of their spirit strengths for duty purposes.

Methylated Spirits.

Seven hundred and twenty-eight drums and 383 cases equal to 89,867 gallons of arrack were methylated for industrial purposes, as against 83,350 gallons in 1914 and 68,707 gallons in 1913.

Opium and Deleterious Drugs.

Sixteen samples of Persian opium were sent in by the Monopolies Department and nine samples by private firms for assay.

Eight samples of Government chandu were assayed for the Monopolies Department.

Toxicology.

Twenty-nine specimens of stomachs, stomach washings, etc., were sent in from the Singapore Hospitals for examination for poisons. Opium or some extract of the same was found in five cases, Acetic Acid in one case and Ptomaines in three cases. Three vomits were found to contain Atropine and from one specimen of viscera 23½ grains of pure Alcohol were recovered.

In addition one specimen from Malacca and one from Johore gave negative results.

Five sets of exhibits were received in connection with alleged attempted poisoning cases. One sent (from Malacca) included a bottle containing a solution of 12½ grains of corrosive sublimate and a packet of powder containing the same ingredient.

Urine.

Forty-four specimens were received for examination; in 9 of these the ammonia co-efficients were determined.

Water.

Twenty-nine samples were sent in for analysis and report. Of these 11 came from Malacca, 3 from the Federated Malay States and 4 from Bangkok.

Milk.

Twelve samples were forwarded for analysis and report. Three of these were found to be of poor quality, the rest were good.

Miscellaneous.

Other samples, not included in the above, which were sent in for analysis and report included:—Five samples of Oil Cake, 3 Test-meals, 2 samples each of Medicines, Burnt Rice Husk and Flour, 1 each of supposed Ganjah, Pearl Sago, Lubricating Oil and Sulphuric Acid used for accumulators, 7 Sovereigns with a bad "ring," 1 forged \$5 Currency Note, several pieces of Sealing Wax in a case of robbery, a Burnt-out Coil of an alternator and various specimens taken from a burnt-out soda factory.

A sample of "air" taken by the Port Health Officer from the hold of a local steamship carrying fruit and which had been the cause of two deaths by suffocation was found to contain:—

| | | | | |
|----------------|-----|-----|-------|-----------------|
| Carbon dioxide | ... | ... | ... | 22.55 per cent. |
| Oxygen | ... | ... | ... | 1.86 " " |
| Marsh Gas | ... | ... | ... | 0.30 " " |
| Nitrogen | ... | ... | ... | 75.29 " " |
| | | | | <hr/> |
| | | | Total | 100.00 |
| | | | | <hr/> |

GOVERNMENT ANALYST'S DEPARTMENT, PENANG.

REPORT BY MR. J. C. COWAP, B.Sc., F. I. C., *Deputy Analyst, Penang.*

The following table gives the details of revenue and expenditure for the Department in 1915. The revenue for 1914 is given for comparison:—

| Revenue. | 1914. | 1915. | Expenditure 1915. |
|--|----------|----------|--|
| | \$ c. | \$ c. | \$ c. |
| Petroleum Inspection Fees | 3,375 00 | 2,785 00 | Personal Emoluments 5,554 24 |
| Miscellaneous ... | 563 50 | 822 50 | Stores ... 209 60 |
| Certificate for Export of Petroleum Fees ... | 302 00 | 217 00 | Miscellaneous ... 149 76 |
| | | | Transport, Travelling & Personal Allowances ... 145 39 |
| Total ... | 4,240 50 | 3,824 50 | Total ... 6,058 99 |

It will be seen that the fall in revenue is more than accounted for by the smaller income derived from the fees for the Inspection of Petroleum.

The number of reports issued on analytical work was 328 as against 231 for the preceding year. Sixty-eight reports were made on petroleum tested, against 80 for 1914.

Petroleum.

(a) *Kerosene*.—Thirty-eight consignments were tested as to the flash-point. All samples were found to flash above the standard temperature (73°F.).

Particulars of kerosene imported and tested are given in the table below:—

| Description of oil. | Number of Consignments. | Tins. | Tons. |
|----------------------------------|-------------------------|---------|----------|
| <i>Case oil.</i> | | | |
| American oil. { Sylvan Arrow ... | 5 | 210,000 | ... |
| { Devoe's ... | | 76,000 | ... |
| Langkat oil. { Dragon ... | 6 | 15,500 | ... |
| { Lamp Glass ... | | 2,755 | ... |
| { Fish ... | | 1,778 | ... |
| <i>Bulk oil.</i> | | | |
| Pulau Soe-Soe ... | 17 | ... | 6,214.55 |
| Balik Papan ... | 7 | ... | 2,295.35 |
| Pulau Sembilan ... | 1 | ... | 318.85 |
| Total ... | 38 | 306,033 | 8,828.75 |

(b) *Dangerous Petroleum*.—Twenty-two consignments, representing 251,480 gallons of petrol, were imported during the year. The containing receptacles were examined in accordance with the Rules under the Petroleum Ordinance.

(c) *Petroleum Residue*.—Eight consignments, representing 4,928 tons, were imported and examined. All samples had a flash-point higher than 150°F.

Explosives.

Six consignments of explosives were tested during the year and were passed as fit for importation under the Explosives Ordinance.

The amount of explosives dealt with was:—

| | <i>Cases.</i> | <i>Pounds.</i> |
|--------------------------|---------------|----------------|
| Gelignite | 1,200 | 60,000 |
| Blasting Gelatine | 10 | 500 |
| Dynamite | 10 | 500 |

Counterfeit Coins.

Exhibits in four cases of counterfeit coining were sent in by the Police during the year.

The total number of counterfeit coins was 53. Of these forty-five were 50-cent pieces, five 20-cent, one 10-cent and two 5-cent.

Bhang.

Bhang appears to have taken the place of morphine and cocaine, at any rate so far as the work of this Department is concerned. During 1915 no Deleterious Drugs were examined, but there were 74 cases of possession of Bhang investigated.

The number of exhibits amounted to 269.

Drugs.

Thirty samples of various medicines, mostly Chinese, were examined. These were chiefly cough-pills, anti-opium pills and other anti-opium mixtures. Few were found to contain any deleterious substance.

One patent medicine was found to contain 1 per cent mercury.

Opium and Chandu.

Forty-nine lots of samples were sent in by the Monopolies Department. The total number of these samples was one hundred and ninety-nine and had to do with cases of re-preparing chandu dross, the importation of opium or illicit chandu, etc.

Spirits.

One thousand one hundred and twenty samples of spirit were received from the Monopolies Department for a determination of their strength for the purpose of levying duty.

Twenty-nine other samples of spirit were received for examination for other purposes. These included rum, beer, medicinal wines, illicit spirit, etc.

Toxicology.

Viscera in 8 cases of suspected poisoning were analysed. Three were found to contain opium, one contained potassium cyanide, one alcohol, and one contained nearly 70 grains of arsenious oxide. In two cases no poison was found.

In addition to these, pills suspected to have caused the death of a child were found to contain opium and exhibits in two cases of alleged theft were shown to contain mercury and arsenic respectively.

Blood Stains.

Twenty-six lots of exhibits, in all 91 articles, were received from the Police for examination as to the presence of blood.

Most of them showed bloodstains.

Water.

Forty-one samples of water were analysed in order to determine whether they were fit for drinking purposes. They came chiefly from Penang Island, Province Wellesley and Kedah.

Eleven were reported on as of bad or doubtful quality.

Miscellaneous.

Reports were issued on a number of samples of a miscellaneous nature. These samples included acetic acid, milk, galena, tea, titaniferrous iron ore, bone meal, fish manure, various fertilisers, superphosphate and other manures, tinned vegetables, cable trench water, pepper, cummin seed, rice, etc.

APPENDIX H.

REPORT ON THE KING EDWARD VII MEDICAL SCHOOL,
SINGAPORE, FOR 1915.(BY DR. R. D. KEITH, MA., M.D., *Principal*.)

Deaf (ex-officio) ... Hon. W. GILMORE ELLIS, M.D. (P.C.M.O.)

Permanent Staff.

Principal ... R. D. KEITH, M.A., M.D. (Aberd.)
 Assistant Principal ... J. T. DUNCAN, F.R.C.S.
 King EDWARD VII Professor J. A. CAMPBELL, M.D., D. Sc. (Edin.)
 Tutor ... A. J. THUMBOO, L.M.S. (Singapore.)

Lecturers.

Chemistry and Physics ... F. DENT, F.I.C., Ph. D.
 Biology ... J. A. CAMPBELL, M.D., D. Sc.
 Surgical Anatomy, Anatomy and Osteology ... J. T. DUNCAN, F.R.C.S.
 Physiology ... Professor J. A. CAMPBELL, M.D., D. Sc.
 Materia Medica ... T. MURRAY ROBERTSON, M.D. (Edin.)
 Pharmacy ... G. W. CRAWFORD, M.P.S.
 Forensic Medicine ... H. J. GIBBS, M.R.C.S., L.R.C.P. (London.)
 Hygiene ... G. E. BROOKE, M.A., D.P.H. (Cantab.)
 Pathology ... G. A. FINLAYSON, M.A., M.B., M.R.C.P. (London).
 Medicine ... D. J. GALLOWAY, M.D., F.R.C.P. (Edin.)
 Clinical Medicine ... R. D. KEITH, M.D.
 Surgery and Clinical Surgery { T. W. BURNE, M.B., B.S. (London).
 { J. W. ADAMS, M.B., B.S. (Cantab.)
 Midwifery ... F. B. CROUCHER, M.B. (Aberdeen).
 Practical Midwifery ... Staff of Maternity Hospitals.
 Ophthalmology ... T. W. BURNE, M.B., B.S.

1. *Numbers, etc.*—Fifteen Students joined the full course which now numbers 79. The names of several students were struck off the roll for continued failure to pass their examinations. The following obtained the L. M. S. diploma:—

| | |
|--------------------|-----------------|
| K. Kirimathypathy. | K. Muttukumaru. |
| S. S. Rajanayagam. | V. Doraisamy. |
| R. S. Kanno. | V. H. Norris. |
| I. S. Abraham. | E. E. Aviet. |

Miss L. N. Henry.

All the above joined the Government service either permanent or temporarily--7 going to the Straits and 2 to the Federated Malay States. Those who joined the Straits service materially helped in allowing a number of the Government Medical Officers to go on active service.

Fifty-eight students have taken the diploma since May, 1910.

2. *Staff, etc.*—Dr. T. D. KENNEDY went on leave in March and joined the Royal Army Medical Corps. His place as Assistant Principal and lecturer in Anatomy has been filled by Dr. J. T. DUNCAN, F. R. C. S. Dr. FINLAYSON, lecturer in Pathology, has been on leave and with the Royal Army Medical Corps since November, 1914, and the course of lectures, etc., in Pathology has been given by the Principal. Surgical work has suffered this year from changes in the teaching personnel. Dr. E. D. WHITTLE was killed at the outbreak of the mutiny. Dr. C. J. SMITH was on leave during the early part of the year and the long session had scarcely started when he had to go on leave again owing to ill-health. The theoretical and clinical teaching of Surgery is being carried on by Drs. ADAMS and BURNE.

3. *Discipline.*—The behaviour of the students have been very good. Within a few hours of the outbreak of the Singapore mutiny the Volunteer Medical Company, which is practically entirely composed of students and student hospital assistants, was on duty in full numbers and continued to serve during the whole of the period of mobilisation at that time. In addition, over twenty who did not belong to the company offered their services to the Senior Medical Officer (Royal Army Medical Corps) and were employed for a time in doing nursing duties.

Later on in the year there was a special course of training for all ranks.

4. Endeavours are still being made to obtain recognition of our diploma. In addition to Dr. GALLOWAY'S course in Medicine the University of Edinburgh now recognises Professor CAMPBELL'S course in Physiology.

5. Professor CAMPBELL has been busy on a research on "Tuba" poison and is publishing the results shortly. At the request of the editor of the projected Year Book of Tropical Medicine I wrote a general paper on Ankylostomiasis. Owing to the war the year book is not being published and the paper is appearing elsewhere.

6. *Hospital Assistants.*—Since 1908 certificates have been given to 106 Hospital Assistants. At present there are 30 attending.

7. The hostel for Federated Malay States' Students is now practically completed.

8. *Other Examinations.*—The dental certificate has been granted after a practical and *vivâ voce* examination to T. YUKI, C. HASHIMOTO, S. HANAFUSA and JIRO IKENADA.

The Maternity certificate was granted to Miss FLORENCE MAUD BAILEY and Miss MINNIE LINDA RAMSAY.

9. *General.*—As heretofore general practitioners and others have been very kind in giving their services as lecturers.

Owing to Dr. FINLAYSON'S absence I acted as Government Pathologist throughout the year; in addition I have been doing military duty with the Royal Army Medical Corps. The museum, therefore, has received little or no attention and very few specimens have been added since my previous report.

APPENDIX I.

PATHOLOGICAL DEPARTMENT.

REPORT BY DR. R. D. KEITH, *Acting Government Pathologist.*

Staff.—Dr. FINLAYSON has been on leave and with the Royal Army Medical Corps during the whole year. I have been in charge throughout. During the latter part of the year Dr. J. T. DUNCAN has performed the post-mortem examinations at the Central Mortuary, Sepoy Lines, while Mr. BARDHAM has done those at Tan Tock Seng's Hospital and has also acted as demonstrator of Pathology in addition to giving valuable assistance in the laboratory. The Subordinate Staff have worked well.

Mortuaries:—

| | | | |
|--|-----|-----|-----|
| Total number of post-mortem examinations | ... | ... | 874 |
|--|-----|-----|-----|

Causes of deaths:—

Metabolic Diseases:—

| | | | | | |
|-----------|-----|-----|-----|-----|----|
| Beri-beri | ... | ... | ... | ... | 50 |
| Diabetes | ... | ... | ... | ... | 1 |
| Gout | ... | ... | ... | ... | 1 |

Protozoal Diseases:—

| | | | | | |
|------------------|-----|-----|-----|-----|----|
| Malaria | ... | ... | ... | ... | 68 |
| Blackwater Fever | ... | ... | ... | ... | 1 |
| Syphilis | ... | ... | ... | ... | 10 |
| Amœbiasis | ... | ... | ... | ... | 74 |

Infective Diseases:—

| | | | | | |
|----------------------------------|-----|-----|-----|-----|-----|
| Tuberculosis | ... | ... | ... | ... | 119 |
| Lobar Pneumonia | ... | ... | ... | ... | 33 |
| Enteric Fever | ... | ... | ... | ... | 20 |
| Dysentery (bacillary) | ... | ... | ... | ... | 36 |
| Dysentery (bacillary and amœbic) | ... | ... | ... | ... | 25 |
| Tetanus | ... | ... | ... | ... | 1 |
| Plague | ... | ... | ... | ... | 7 |
| Suppurative peritonitis | ... | ... | ... | ... | 27 |
| Various septic conditions | ... | ... | ... | ... | 33 |

Helminthiasis:—

| | | | | | |
|-------------------------------|-----|-----|-----|-----|----|
| Ankylostomiasis | ... | ... | ... | ... | 13 |
| Schistosomum japonicum | ... | ... | ... | ... | 1 |
| <i>Accidents and Injuries</i> | ... | ... | ... | ... | 86 |
| <i>Poisoning</i> | ... | ... | ... | ... | 10 |
| <i>Neoplasms-malignant</i> | ... | ... | ... | ... | 27 |
| <i>Still-birth</i> | ... | ... | ... | ... | 4 |
| <i>Senility</i> | ... | ... | ... | ... | 3 |
| <i>Uncertain</i> | ... | ... | ... | ... | 6 |

Diseases of Nervous system:—

| | | | | | |
|---------------------|-----|-----|-----|-----|----|
| Cerebral abscess | ... | ... | ... | ... | 3 |
| Cerebral thrombosis | ... | ... | ... | ... | 14 |
| Cerebral hæmorrhage | ... | ... | ... | ... | 7 |
| Meningitis | ... | ... | ... | ... | 14 |
| Myelitis | ... | ... | ... | ... | 5 |

Diseases of genito-urinary system:—

| | | | | | |
|--------------------------|-----|-----|-----|-----|----|
| Cystitis | ... | ... | ... | ... | 3 |
| Parenchymatous nephritis | ... | ... | ... | ... | 29 |
| Interstitial nephritis | ... | ... | ... | ... | 2 |
| Pyelonephritis | ... | ... | ... | ... | 7 |
| Pyelonephrosis | ... | ... | ... | ... | 1 |
| Uræmia | ... | ... | ... | ... | 5 |
| Extravasation of urine | ... | ... | ... | ... | 2 |

Diseases of circulatory system:—

| | | | | | |
|---------------------------|-----|-----|-----|-----|----|
| Aneurism | ... | ... | ... | ... | 19 |
| Valvular Disease of Heart | ... | ... | ... | ... | 10 |
| Pericarditis | ... | ... | ... | ... | 11 |

Diseases of respiratory system:—

| | | | | | |
|-------------------|-----|-----|-----|-----|----|
| Broncho-pneumonia | ... | ... | ... | ... | 13 |
| Empyema | ... | ... | ... | ... | 11 |
| Gangrene | ... | ... | ... | ... | 13 |
| Pleurisy | ... | ... | ... | ... | 1 |
| Pyopneumothrax | ... | ... | ... | ... | 4 |
| Pneumothorax | ... | ... | ... | ... | 2 |

Diseases of Alimentary system:—

| | | | | | |
|--|-----|-----|-----|-----|----|
| Strangulated hernia | ... | ... | ... | ... | 3 |
| Intussusception | ... | ... | ... | ... | 1 |
| Intestinal obstruction | ... | ... | ... | ... | 1 |
| Stricture of rectum | ... | ... | ... | ... | 1 |
| Hæmorrhoids | ... | ... | ... | ... | 1 |
| Acute pancreatitis | ... | ... | ... | ... | 1 |
| Gastro-enteritis | ... | ... | ... | ... | 1 |
| Gangrene of bowel | ... | ... | ... | ... | 1 |
| Hepatic cirrhosis | ... | ... | ... | ... | 13 |
| Cholangitis | ... | ... | ... | ... | 3 |
| Cholecystitis | ... | ... | ... | ... | 3 |
| Unspecified ulcers of alimentary tract | ... | ... | ... | ... | 9 |

Syphilis.—A certain amount of work has been carried out on this disease.

Post-mortem observations:—

| | | | | |
|--|-----|-----|-----|-------|
| Number of autopsies in all | ... | ... | ... | 874 |
| Number of cases of undoubted syphilis | ... | ... | ... | 127 |
| Number of cases showing suspicious signs of syphilis | ... | ... | ... | 61 |
| Percentage of undoubted cases | ... | ... | ... | 14.5% |
| Percentage of suspected cases | ... | ... | ... | 6.8% |

Wassermann's reaction.—Throughout the year I employed the heart extract and cholesterin method recommended by FILDES and MCINTOSH. Part of the year I used an amboceptor made by myself and during the remainder of the time BURROUGHS and WELLCOMES' sheep's blood amboceptor. They both worked satisfactorily although the latter decreased in strength after 6 months. Most of the patients come from the hospitals and special attention was paid to the WASSERMANN reaction in lunatics. A considerable number of tests was performed for lower deck ratings from His Majesty's ships and for patients in the military hospital, Tanglin.

The total number of patients examined in 1915 was 438.

The following results were obtained:—

Males:—

| <i>Nationality.</i> | <i>Positive.</i> | <i>Negative.</i> | <i>Partial.</i> | <i>Total.</i> |
|---------------------|------------------|------------------|-----------------|---------------|
| Europeans | 32 | 43 | 5 | 80 |
| Chinese | 127 | 101 | 5 | 283 |
| Indians | 18 | 34 | 1 | 53 |
| Japanese | 2 | 2 | 0 | 4 |
| Philippino | 1 | 0 | 0 | 1 |
| Eurasians | 5 | 6 | 0 | 11 |
| Malays | 8 | 5 | 0 | 13 |
| Total | ... | ... | ... | 395 |

Females:—

| <i>Nationality.</i> | <i>Positive.</i> | <i>Negative.</i> | <i>Partial.</i> | <i>Total.</i> |
|---------------------|------------------|------------------|-----------------|---------------|
| Europeans | 1 | 0 | 0 | 1 |
| Chinese | 15 | 14 | 0 | 29 |
| Indians | 4 | 1 | 0 | 5 |
| Japanese | 2 | 1 | 0 | 3 |
| Malays | 3 | 2 | 0 | 5 |
| Total | ... | ... | ... | 43 |

Lunatics :—

Males :—

| <i>Nationality.</i> | <i>Positive.</i> | <i>Negative.</i> | <i>Partial.</i> | <i>Total.</i> |
|---------------------|------------------|------------------|-----------------|---------------|
| Europeans | 2 | 2 | 0 | 4 |
| Eurasians | 4 | 5 | 0 | 9 |
| Indians | 11 | 26 | 0 | 37 |
| Malays | 7 | 6 | 0 | 13 |
| Chinese | 58 | 65 | 3 | 126 |
| Japanese | 0 | 1 | 0 | 1 |
| Philippino | 1 | 0 | 0 | 1 |
| | | | Total ... | 191 |

Females :—

| <i>Nationality.</i> | <i>Positive.</i> | <i>Negative.</i> | <i>Partial.</i> | <i>Total.</i> |
|---------------------|------------------|------------------|-----------------|---------------|
| Indians | 3 | 0 | 1 | 4 |
| Malays | 3 | 2 | 0 | 5 |
| Chinese | 12 | 13 | 0 | 25 |
| Japanese | 2 | 1 | 0 | 3 |
| | | | Total ... | 37 |

The observations will be continued in 1916 as the number of cases is too small to justify generalizations as yet. The number of tests exceeded the number of patients as some of the patients were examined several times.

Observations on the Effects of Treatment.

Patients in my Wards at Tan Tock Seng's Hospital were treated with weekly injections of calomel cream, each dose being equal to $\frac{1}{2}$ grain of calomel. Of necessity they were all old chronic cases; patients with secondaries invariably leave as soon the rash clears up. The strength of the WASSERMANN reaction was tested from time to time and in no case even after months of treatment was there the slightest effect on it. Indeed one is inclined to wonder whether the ordinary forms of mercury have any effect on syphilis and whether its so-called curative effect is anything more than a gradual healing of lesions as protective substances become developed. In the case of salvarsan and neo-salvarsan and, their like, from the results one has gathered from the case sheets of various patients it is clear that it is not the number of spirochetes but their accessibility or in-accessibility that the ease or difficulty of cure depends on.

I have given only my conclusions and not my proofs so as to be brief.

Laboratory.

Examinations were made for the following :—

| | | |
|--|---------------------|-----|
| Widal's reaction for typhoid and paratyphoid ... | ... | 345 |
| Malaria ... | ... | 65 |
| Diphtheria ... | ... | 4 |
| Gonococcus ... | ... | 15 |
| Sputum for bacillus tuberculosis ... | ... | 28 |
| Filaria ... | ... | 2 |
| Urines for casts ... | ... | 16 |
| Blood cultures ... | ... | 3 |
| Trichophyton ... | ... | 1 |
| Precipitin ... | ... | 2 |
| | Carried forward ... | 481 |

| | | | | | |
|------------------------------|-----|-----|-----|----------------------------|--------------|
| | | | | <i>Brought forward</i> ... | 481 |
| Negri's bodies | ... | ... | ... | ... | 3 |
| Plague | ... | ... | ... | ... | 2 |
| Leprosy | ... | ... | ... | ... | 16 |
| Stools for ova and amœbæ | ... | ... | ... | ... | 16 |
| Wassermann's reaction | ... | ... | ... | ... | 455 |
| Histological sections | ... | ... | ... | ... | 70 |
| Differential leucocyte count | ... | ... | ... | ... | 11 |
| Pus, etc. | ... | ... | ... | ... | 10 |
| | | | | Total ... | 1,067 |

Observations have been made on the effect of Malachite Green as an antiseptic. This substance was investigated by FILDES, RAJCHMAN and CHEATLE, (*Lancet*, July 24th, 1915) one of whom—Dr. FILDES—kindly sent me a specimen to try on ulcers. Observations are still being continued at Tan Tock Seng's Hospital. The actual manipulation has been carried out and the notes taken by Mr. A. J. THUMBOO, L. M. S. I have exercised only a general supervision. Excellent results have been obtained in cases of dirty ulcers and venereal sores.

I have also examined a number of water supplies including an extended investigation into the Ayer Kroh supply of Malacca and a number of samples from the Port Health Officer.

At the request of the Principal Civil Medical Officer, a number of new antiseptics was examined.

APPENDIX J.

ANNUAL REPORT ON THE MEDICAL DEPARTMENT, LABUAN, FOR THE YEAR 1915.

(By Dr. T. C. A. CLEVERTON, M.R.C.S., L.R.C.P., *Medical Officer*).

Population and health.—Table showing the estimated population, and the birth and death-rates, for the years 1913 to 1915:—

| Years. | Estimated Population. | Births. | Deaths. | Birth-rate. | Death-rate. |
|----------|-----------------------|---------|---------|-------------|-------------|
| 1913 ... | 6,706 | 216 | 144 | 32'20 | 21'47 |
| 1914 ... | 6,746 | 185 | 145 | 26'79 | 21'61 |
| 1915 ... | 6,768 | 164 | 142 | 24'33 | 21'04 |

No new coolies have been imported into Labuan. The birth-rate was highest during the first quarter, and the death-rate was highest during the third quarter. Of the total number of deaths, Malaria accounted for 38, Pulmonary Tuberculosis for 16, old age and Debility for 28, Unknown and Other causes for 16.

The mortality under one year of age was 46 as against 50 in 1914.

The following table shows the infantile mortality under 1 year of age :—

| Years. | Deaths. | Percentage to total Death-rate. | Percentage to total Birth-rate. |
|-------------|---------|---------------------------------|---------------------------------|
| 1913 | 49 | 34'02 | 22'68 |
| 1914 | 50 | 34'48 | 27'02 |
| 1915 | 46 | 32'39 | 29'02 |

There was only one still-birth during the year. The causes of deaths amongst infants under one year of age were given as follows :—

Malaria 12, Convulsions 19, Inanition 9, Other Causes and Unknown 6.

Malaria.—Forty-three cases were admitted to hospital during the year as against 45 in 1914. The type of infection was mostly of Benign Tertian. Five cases of Subtertian were treated in hospital as against 15 in 1914. Two hundred and ten cases were treated as Out-patients as against 151 in 1914.

Of the total number of deaths 38 were attributed to this disease. Two thousand five hundred and sixty-three dollars and sixty-three cents were spent on Anti-malarial Works by the Rural Board and the Public Works Department.

The works consisted of filling in swamps \$1,737.73, clearing scrubs, removing empty bottles, tins, coconut husks, etc., clearing drains \$824.90.

Beri-beri.—This disease shows a marked decrease from the previous year. Nine patients were treated in hospital with one death as against 17 in 1914 with no death. Of the total number of deaths, only one was attributed to this disease. Parboiled rice was used throughout the year in hospital.

Venerical Diseases.—Twenty-five cases were admitted to hospital during the year as against 26 in 1914. Twenty-seven cases were treated as out-patients as against 25 in 1914. Of the total number of deaths 2 were attributed to this disease.

Pulmonary Tuberculosis.—Four cases were treated in hospital during the year, the same figure as in the previous year. Three cases were treated as out-patients as against 2 in 1914. Of the total number of deaths 16 were attributed to this disease. The percentage of deaths was 11'26 of the total death-rate as against 19'31 in 1914.

Dysentery and Diarrhœa.—Eleven cases were admitted to hospital during the year as against 4 in 1914. Five of these cases were imported from British North Borneo. Of the total number of deaths 8 were attributed to this disease.

Port Health Work.—Only one ship was examined during the year and an immediate pratique was granted. Eleven Bills of Health were issued.

Police Force.—The general health of the force has been satisfactory. Thirty-one cases were admitted to hospital as against 41 in 1914.

Three hundred and fourteen cases were treated as out-patients as against 268 in 1914. Eleven cases of Malaria were admitted to hospital as against 16 in 1914. Of the 314 cases treated as out-patients, 116 were Malaria as against 75 in 1914.

Prisoners.—The health of the prisoners was satisfactory during the year. Sixteen prisoners were admitted to hospital as against 28 in 1914. Of these 16 admissions, only one case was Malaria. Twenty-two patients were treated as out-patients as against 20 in 1914. No deaths occurred.

Out-patients.—Seven hundred and seventeen cases were treated as out-patients as against 566 in 1914. There were 18 Europeans, 19 Eurasians, 104 Chinese, 278 Malays, 289 Indians and 9 Other Nationalities. The chief diseases treated were Malaria, Bronchitis, Syphilis, and Dyspepsia.

Vaccination.—The total number of cases vaccinated during the year was 127 as against 149 in 1914. Of the 127 vaccinated 105 were successful, 1 failed, and 21 were not seen.

Meteorological.—The North-East Monsoon blew from January to the end of March when the South-West Monsoon began and continued to the end of December. The total rainfall during the year was 141·27 inches as against 82·05 inches in 1914. The wettest month was December when 23·90 inches fell. The greatest rainfall on any one day was 5 inches on the 1st May and again on the 20th August.

Maximum Temperature in shade was 95·5° on 9th April.

Minimum Temperature in shade was 71° on 10th December.

The maximum mean Temperature was 88·2° Fht.

The minimum mean Temperature was 76·8° Fht.

The mean Temperature was ... 82·5° Fht.

Hospital.—The total number of admissions during the year was 204 as against 198 in 1914 making a total treated of 210, including 6 remaining over from 1914. Of the total number of admissions 108 were Chinese, 54 Malays, 40 Indians, and 2 Other Nationalities. There were 16 operations performed under Chloroform in addition to which there were several minor operations performed under local anæsthetic. All the septic cases were dressed with Hypochlorous Acid Solution 5 per cent from the end of August with excellent results. There were 13 deaths in hospital giving a percentage mortality of 6·19 as against 2·95 in 1914. Four deaths occurred within 12 hours of admission.

The chief diseases treated were Malaria 43 with 2 deaths, Beri-beri 9 with 1 death, Pulmonary Tuberculosis 4 with 2 deaths, Dysentery and Diarrhœa 11 with 3 deaths and Venereal Diseases 25 with 1 death.

There was a scarcity of water in the hospital well for 4 months, which necessitated the engagement of a cooly to carry water from a distant well from January to the end of April.

Staff.—Dr. J. W. ADAMS was in charge of the Department till 10th June when I took charge.

SINGAPORE.

Return of the Statistics of Population for the Year 1915.

| | Europeans. | Eurasians. | Malays. | Chinese. | Indians. | Other Nationalities. | TOTAL. |
|-----------------------------------|------------|------------|---------|----------|----------|----------------------|---------|
| Number of inhabitants in 1915 ... | 6,396 | 5,231 | 46,818 | 245,896 | 31,082 | 4,255 | 339,678 |
| " Births during the year 1915 | 136 | 170 | 1,926 | 5,996 | 546 | 42 | 8,816 |
| " Deaths " 1915 | 104 | 94 | 1,376 | 6,825 | 705 | 110 | 9,214 |
| " Immigrants " 1915 | } | Not | avail- | able. | | | |
| " Emigrants " 1915 | | | | | | | |
| Number of inhabitants in 1914 ... | 6,218 | 5,085 | 45,511 | 239,034 | 30,215 | 4,136 | 330,199 |
| Increase | 178 | 146 | 1,307 | 6,862 | 867 | 119 | 9,479 |

Meteorological Return for the Year 1915.

| | TEMPERATURE. | | | | | | RAINFALL. | | WINDS. | | REMARKS. |
|------------------|----------------|-------------------|----------------|----------------|---------|---------|-------------------|---------------------|--------------------|----------------|----------|
| | Solar Maximum. | Minimum on Grass. | Shade Maximum. | Shade Minimum. | Range. | Mean. | Amount in Inches. | Degree of Humidity. | General Direction. | Average Force. | |
| January | °F 143.7 | °F 71.7 | °F 86.4 | °F 73.9 | °F 12.5 | °F 80.4 | Inches. 9.27 | 84 | N.E. | Not recorded. | |
| February | 154.9 | 70.4 | 89.3 | 72.8 | 16.5 | 83.2 | 5.52 | 78 | N.E. | | |
| March | 155.2 | 75.3 | 90.4 | 72.7 | 17.7 | 84.8 | 4.34 | 76 | N.E. | | |
| April | 150.2 | 73.5 | 89.7 | 74.4 | 15.3 | 84.2 | 9.07 | 79 | S.E. | | |
| May | 150.1 | 73.5 | 91.0 | 74.8 | 16.2 | 85.3 | 2.84 | 78 | S.W. | | |
| June | 149.1 | 73.7 | 90.7 | 75.6 | 15.1 | 85.1 | 6.47 | 78 | S.E. | | |
| July | 144.3 | 73.0 | 87.6 | 75.1 | 12.5 | 82.5 | 8.44 | 83 | S.E. | | |
| August | 148.6 | 75.0 | 89.1 | 76.8 | 12.3 | 84.4 | 6.48 | 76 | S.E. | | |
| September | 148.2 | 73.0 | 88.2 | 74.7 | 13.5 | 83.1 | 5.40 | 78 | S.E. | | |
| October | 145.4 | 72.6 | 88.2 | 75.0 | 13.2 | 85.7 | 7.67 | 77 | S.W. | | |
| November | 148.3 | 71.3 | 88.5 | 74.4 | 14.1 | 81.9 | 12.15 | 81 | N.W. | | |
| December | 139.4 | 70.3 | 86.5 | 73.6 | 12.9 | 80.8 | 13.28 | 86 | N.E. | | |
| Mean | 148.1 | 72.8 | 88.8 | 74.5 | 14.3 | 83.5 | 90.93 | 79 | ... | ... | |

SINGAPORE.

*Return of Diseases and Deaths in 1915 at the following Institutions:—
General Hospital, Prison, St. John's Island, Tan Tock Seng's Hospital, Quarantine
Camp, Leper, Beri-beri and Kandang Kerbau Hospitals and Lunatic Asylum.*

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| INFECTIVE DISEASES. | | | | | | |
| Black Water Fever ... | 1 | 7 | 1 | 8 | 1 | |
| Beri-beri ... | 132 | 430 | 55 | 562 | 60 | |
| Chicken-pox ... | ... | 10 | ... | 10 | ... | |
| Cholera ... | ... | 2 | 1 | 2 | ... | |
| Dengue ... | ... | 12 | ... | 12 | ... | |
| Diphtheria ... | ... | 4 | 1 | 4 | ... | |
| Dysentery ... | 42 | 523 | 193 | 565 | 19 | |
| Enteric Fever ... | 4 | 82 | 38 | 86 | 3 | |
| Erysipelas ... | ... | 2 | 1 | 2 | ... | |
| Gonorrhoea ... | 19 | 340 | ... | 359 | 18 | |
| Febricula ... | ... | 24 | ... | 24 | ... | |
| Leprosy ... | 52 | 57 | 7 | 109 | 53 | |
| Malaria, Benign Tertian ... | 21 | 518 | 29 | 539 | 15 | |
| Malignant Tertian ... | 53 | 670 | 52 | 723 | 14 | |
| Quartan ... | 7 | 164 | 4 | 171 | 3 | |
| Mixed ... | 1 | 51 | 2 | 52 | ... | |
| Chronic ... | 14 | 272 | 19 | 286 | 8 | |
| Not differentiated | 59 | 531 | 14 | 590 | 26 | |
| Measles ... | ... | 9 | ... | 9 | ... | |
| Mumps ... | ... | 6 | ... | 6 | ... | |
| Phagedæna ... | ... | 12 | 5 | 12 | ... | |
| Plague ... | ... | 7 | 6 | 7 | ... | |
| Pneumonia ... | 7 | 155 | 63 | 162 | 10 | |
| Pyæmia ... | ... | 2 | 2 | 2 | ... | |
| Pyrexia ... | 2 | 467 | 1 | 469 | 5 | |
| Rheumatism ... | 1 | 47 | ... | 48 | 6 | |
| Septicæmia ... | ... | 4 | 4 | 4 | ... | |
| Small-pox ... | ... | 3 | ... | 3 | ... | |
| Syphilis, Primary ... | 16 | 294 | ... | 310 | 25 | |
| Secondary ... | 69 | 939 | 22 | 1,008 | 87 | |
| Tertiary ... | 7 | 122 | 7 | 129 | 10 | |
| Tetanus ... | ... | 5 | 3 | 5 | ... | |
| Tuberculosis ... | 5 | 65 | 36 | 70 | 4 | |
| Yaws ... | ... | 1 | ... | 1 | ... | |
| Other Diseases ... | ... | 44 | ... | 44 | ... | |
| INTOXICATIONS. | | | | | | |
| Alcohol ... | 1 | 45 | 1 | 46 | ... | |
| Mercury ... | ... | 1 | ... | 1 | 1 | |
| Morphinism (Opium) ... | 1 | 14 | 1 | 15 | ... | |
| Atropinism ... | ... | 3 | ... | 3 | ... | |
| GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS. | | | | | | |
| Anæmia (Splenic) ... | ... | 3 | 1 | 3 | ... | |
| " ... | ... | 25 | ... | 25 | 1 | |
| Diabetes ... | 1 | 7 | 2 | 8 | ... | |
| Old age and Debility ... | 15 | 42 | 8 | 57 | 12 | |
| Other Diseases ... | 4 | 12 | ... | 16 | 1 | |
| <i>Carried forward ...</i> | 534 | 6,033 | 579 | 6,567 | 382 | |

Return of Diseases and Deaths in 1915 at the Singapore Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 534 | 6,033 | 579 | 6,567 | 382 | |
| CERTAIN MORBID CON- DITIONS INCIDENT TO VARIOUS PARTS. | | | | | | |
| Malformations ... | ... | 8 | ... | 8 | 3 | |
| New Growth ... | ... | 1 | ... | 1 | ... | |
| Non-malignant ... | ... | 12 | 1 | 12 | 2 | |
| Malignant ... | ... | 79 | 45 | 79 | 3 | |
| Cyst ... | ... | 7 | ... | 7 | ... | |
| DISEASES OF THE NERVOUS SYSTEM. | | | | | | |
| DISEASES OF THE NERVES. | | | | | | |
| Neuritis ... | 12 | 92 | ... | 104 | 10 | |
| Convulsion ... | ... | 1 | 1 | 1 | ... | |
| DISEASES OF THE SPINAL CORD AND MEMBRANES. | | | | | | |
| Meningitis ... | ... | 19 | 15 | 19 | ... | |
| Myelitis ... | 2 | 8 | 3 | 10 | 1 | |
| Locomotor Ataxia ... | 2 | 16 | 1 | 18 | 11 | |
| DISEASES OF THE BRAIN AND MEMBRANES. | | | | | | |
| Gumma Brain ... | ... | 2 | 2 | 2 | ... | |
| Meningitis ... | ... | 4 | 3 | 4 | 1 | |
| Hæmorrhage ... | ... | 7 | 5 | 7 | ... | |
| Abscess ... | ... | 2 | 2 | 2 | ... | |
| Other Diseases ... | ... | 1 | 1 | 1 | ... | |
| NERVOUS DISORDERS. | | | | | | |
| Cerebral Softening ... | ... | 11 | 11 | 11 | ... | |
| Paraplegia ... | 5 | 25 | ... | 30 | 13 | |
| Hemiplegia ... | 21 | 48 | 6 | 69 | 21 | |
| Neurasthenia ... | 1 | 1 | ... | 2 | ... | |
| Paralysis ... | 5 | 14 | 2 | 19 | 1 | |
| Epilepsy ... | 6 | 9 | 1 | 15 | 1 | |
| Headache ... | ... | 1 | ... | 1 | ... | |
| Neuralgia ... | ... | 13 | ... | 13 | 1 | |
| Sclerosis ... | ... | 1 | ... | 1 | 1 | |
| Apoplexy ... | ... | 9 | 2 | 9 | ... | |
| Other Diseases ... | ... | 32 | 7 | 32 | 3 | |
| <i>Carried forward ...</i> | 588 | 6,456 | 687 | 7,044 | 454 | |

Return of Diseases and Deaths in 1915 at the Singapore Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Remain- ing in Hospital at end of 1915. | Total Cases Treated. | REMARKS. |
|--|---|------------------|---------|---|----------------------------|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 588 | 6,456 | 687 | 7,044 | 454 | |
| MENTAL DISEASES. | | | | | | |
| Congenital or Infantile Defi- ciency with Epilepsy ... | ... | 2 | ... | 2 | 2 | |
| Congenital or Infantile Defi- ciency without Epilepsy ... | 18 | 9 | 4 | 27 | 19 | |
| Epilepsy acquired ... | 17 | 5 | 2 | 22 | 16 | |
| General Paralysis of the In- sane ... | 8 | 8 | 5 | 16 | 7 | |
| Mania, Acute ... | 60 | 131 | 29 | 191 | 85 | |
| " delirious ... | ... | 3 | 1 | 3 | 1 | |
| Chronic ... | 21 | 2 | 3 | 23 | 11 | |
| Recurrent ... | 6 | 5 | 1 | 11 | 6 | |
| A potu ... | 11 | 30 | 7 | 41 | 11 | |
| Puerperal ... | 1 | ... | ... | 1 | 1 | |
| Senile ... | ... | 4 | 1 | 4 | 2 | |
| Melancholia, Acute ... | 22 | 31 | 6 | 53 | 24 | |
| Chronic ... | 17 | ... | 3 | 17 | 6 | |
| A potu ... | 3 | 2 | ... | 5 | 1 | |
| Delusional Insanity ... | 6 | 88 | ... | 94 | 5 | |
| Dementia, Primary ... | 20 | 22 | 4 | 42 | 27 | |
| Secondary ... | 186 | 3 | 19 | 189 | 80 | |
| Senile ... | 14 | 5 | 4 | 19 | 7 | |
| A potu ... | ... | 2 | ... | 2 | ... | |
| Organic ... | 31 | 5 | 5 | 36 | 14 | |
| Not Insane on admission ... | 1 | 2 | ... | 3 | 1 | |
| Other Diseases ... | ... | 6 | ... | 6 | 1 | |
| DISEASES OF THE EYE. | | | | | | |
| Conjunctivitis, Trachoma ... | ... | 7 | ... | 7 | 3 | |
| Catarrhal ... | 2 | 46 | ... | 48 | 3 | |
| Purulent ... | 3 | 15 | ... | 18 | 3 | |
| Keratitis ... | 2 | 6 | ... | 8 | ... | |
| Cornea, Ulcer of ... | 2 | 48 | ... | 50 | 2 | |
| Opacity ... | 12 | 21 | ... | 33 | 9 | |
| Iritis ... | 3 | 36 | ... | 39 | 4 | |
| Optic Neuritis ... | 1 | 7 | ... | 8 | 2 | |
| Cataract ... | 3 | 12 | ... | 15 | 2 | |
| Panophthalmitis ... | ... | 4 | ... | 4 | ... | |
| Entropion ... | ... | 1 | ... | 1 | 1 | |
| Other Eye Diseases ... | 47 | 68 | ... | 115 | 37 | |
| DISEASES OF THE EAR. | | | | | | |
| External Ear, Inflammation. | ... | 7 | ... | 7 | ... | |
| Other Diseases ... | ... | 14 | ... | 14 | ... | |
| DISEASES OF THE NOSE. | | | | | | |
| Naso-pharyngeal Catarrh ... | ... | 1 | ... | 1 | ... | |
| Coryza ... | ... | 5 | ... | 5 | ... | |
| Other Diseases ... | ... | 6 | ... | 6 | ... | |
| <i>Carried forward ...</i> | 1,105 | 7,125 | 781 | 8,230 | 847 | |

Return of Diseases and Deaths in 1915 at the Singapore Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 1,105 | 7,125 | 781 | 8,230 | 847 | |
| DISEASES OF THE CIRCULATORY SYSTEM. | | | | | | |
| Pericarditis ... | ... | 10 | 8 | 10 | ... | |
| Endocarditis ... | ... | 3 | 3 | 3 | ... | |
| Valvular Disease ... | 2 | 51 | 22 | 53 | 2 | |
| Aneurysm ... | ... | 12 | 8 | 12 | ... | |
| Thrombosis ... | ... | 2 | 1 | 2 | ... | |
| Arterial sclerosis ... | ... | 4 | ... | 4 | 1 | |
| Other Diseases ... | 3 | 18 | 2 | 21 | ... | |
| DISEASES OF THE RESPIRATORY SYSTEM. | | | | | | |
| Asthma ... | 2 | 44 | ... | 46 | 6 | |
| Laryngitis ... | 1 | 3 | ... | 4 | 1 | |
| Bronchitis ... | 11 | 233 | 1 | 244 | 10 | |
| Broncho-pneumonia ... | 3 | 50 | 13 | 53 | 1 | |
| Phthisis ... | 31 | 421 | 200 | 452 | 27 | |
| Pleurisy ... | ... | 32 | 1 | 32 | 1 | |
| Empyema ... | ... | 20 | 9 | 20 | 2 | |
| Pyopneumothorax ... | ... | 6 | 5 | 6 | ... | |
| Gangrene of Lung ... | 1 | 12 | 10 | 13 | ... | |
| Other Diseases ... | ... | 8 | 2 | 8 | 1 | |
| DISEASES OF THE DIGESTIVE SYSTEM. | | | | | | |
| Stomatitis ... | ... | 13 | ... | 13 | ... | |
| Cholecystitis ... | ... | 12 | 4 | 12 | 1 | |
| Caries of Tooth ... | ... | 3 | ... | 3 | 1 | |
| Cholangitis ... | ... | 1 | 1 | 1 | ... | |
| Tonsillitis ... | 1 | 17 | ... | 18 | 1 | |
| Pharyngitis ... | 1 | 34 | ... | 35 | ... | |
| Gastritis ... | 2 | 61 | ... | 63 | 5 | |
| Ulceration, Stomach ... | ... | 9 | 5 | 9 | ... | |
| Dyspepsia ... | 7 | 141 | ... | 148 | 2 | |
| Other Diseases of Stomach... .. | ... | 7 | 2 | 7 | ... | |
| Enteritis ... | ... | 12 | 1 | 12 | 1 | |
| Appendicitis ... | 1 | 29 | 5 | 30 | 3 | |
| Colitis ... | 1 | 64 | ... | 65 | 5 | |
| Ulcer Duodenum ... | 8 | ... | ... | 8 | ... | |
| Hernia, Reducible ... | 1 | 34 | ... | 35 | 2 | |
| " Strangulated ... | ... | 9 | 4 | 9 | ... | |
| Obstruction, Intestines ... | ... | 5 | 3 | 5 | ... | |
| Diarrhœa ... | 5 | 220 | 4 | 225 | 5 | |
| Constipation ... | ... | 21 | ... | 21 | ... | |
| Colic ... | ... | 7 | ... | 7 | ... | |
| Ischio Rectal Abscess ... | 1 | 13 | ... | 14 | ... | |
| Fissure of Anus ... | ... | 6 | ... | 6 | ... | |
| Fistula in Ano ... | 1 | 35 | 1 | 36 | 1 | |
| Hoemorrhoids ... | ... | 42 | 1 | 42 | 2 | |
| Prolapse of Rectum ... | ... | 4 | ... | 4 | ... | |
| Liver, Inflammation ... | ... | ... | ... | ... | ... | |
| Abscess ... | 1 | 28 | 7 | 29 | 1 | |
| Cirrhosis ... | 5 | 50 | 19 | 55 | 5 | |
| Hepatitis ... | ... | 9 | ... | 9 | ... | |
| Jaundice ... | 1 | 14 | ... | 1 | 1 | |
| <i>Carried forward ...</i> | 1,195 | 8,954 | 1,123 | 10,149 | 935 | |

Return of Diseases and Deaths in 1915 at the Singapore Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---------------------------------------|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 1,195 | 8,954 | 1,123 | 10,149 | 935 | |
| DISEASES OF THE DIGESTIVE SYSTEM.— | | | | | | |
| <i>Continued.</i> | | | | | | |
| Gall Stones ... | ... | 1 | ... | 1 | ... | |
| Peritoneum, Inflammation ... | ... | 27 | 24 | 27 | ... | |
| Other Diseases ... | 5 | 64 | 10 | 69 | 1 | |
| DISEASES OF THE LYMPHATIC SYSTEM. | | | | | | |
| Bubo ... | 1 | 149 | ... | 150 | 11 | |
| Glands, Inflammation ... | ... | 13 | ... | 13 | 1 | |
| Goitre ... | ... | ... | ... | ... | ... | |
| Other Diseases ... | ... | 34 | ... | 34 | 3 | |
| DISEASES OF THE URINARY SYSTEM. | | | | | | |
| Bright's Disease ... | ... | 5 | ... | 5 | 2 | |
| Nephritis, Acute ... | 5 | 12 | 3 | 17 | 2 | |
| Chronic ... | 2 | 104 | 48 | 106 | 8 | |
| Cystitis ... | 1 | 16 | 5 | 17 | 1 | |
| Calculus ... | ... | 9 | ... | 9 | 1 | |
| Urine, Retention of ... | 1 | 4 | ... | 5 | ... | |
| Pyonephrosis ... | ... | 1 | 1 | 1 | ... | |
| Other Diseases ... | ... | 21 | 10 | 21 | ... | |
| DISEASES OF THE GENERATIVE SYSTEM. | | | | | | |
| (MALE ORGANS.) | | | | | | |
| Abscess ... | ... | 2 | ... | 2 | ... | |
| Stricture ... | 1 | 24 | ... | 25 | 1 | |
| Urethral Fistula ... | ... | 14 | ... | 14 | 5 | |
| Extravasation of Urine ... | ... | 2 | 1 | 2 | 1 | |
| Phimosis ... | ... | 15 | ... | 15 | 1 | |
| Paraphimosis ... | ... | 4 | ... | 4 | ... | |
| Soft Chancre ... | 10 | 237 | ... | 247 | 13 | |
| Hæmatocele ... | ... | 2 | ... | 2 | ... | |
| Balanitis ... | ... | 3 | ... | 3 | 1 | |
| Epididymitis ... | ... | 8 | ... | 8 | 3 | |
| Hydrocele ... | 2 | 49 | ... | 51 | 3 | |
| Orchitis ... | 1 | 17 | ... | 18 | ... | |
| Abscess Testis ... | ... | 3 | ... | 3 | ... | |
| Hernia " ... | ... | 6 | ... | 6 | 1 | |
| Other Diseases ... | 1 | 26 | ... | 27 | ... | |
| <i>Carried forward ...</i> | 1,225 | 9,826 | 1,225 | 11,051 | 994 | |

Return of Diseases and Deaths in 1915 at the Singapore Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 1,225 | 9,826 | 1,225 | 11,051 | 994 | |
| DISEASES OF THE GENERATIVE SYSTEM. —Continued. | | | | | | |
| (FEMALE ORGANS.) | | | | | | |
| Endometritis ... | 1 | 6 | ... | 7 | ... | |
| Salpingitis ... | ... | 3 | ... | 3 | ... | |
| Soft Chancre ... | ... | 12 | ... | 12 | 5 | |
| Fistula Vesico, Vaginal ... | ... | 2 | ... | 2 | ... | |
| Sapraemia ... | 1 | 15 | 13 | 16 | 1 | |
| Other Diseases ... | 2 | 26 | ... | 28 | ... | |
| AFFECTIONS CONNECTED WITH PREGNANCY. | | | | | | |
| Abortion ... | ... | 5 | 1 | 5 | ... | |
| Pregnancy ... | 7 | 447 | 5 | 454 | 14 | |
| Other Diseases ... | 5 | 6 | 5 | 11 | ... | |
| DISEASES OF THE FEMALE BREAST. | | | | | | |
| Mastitis ... | ... | 2 | ... | 2 | ... | |
| DISEASES OF THE ORGANS OF LOCOMOTION. | | | | | | |
| Periostitis ... | ... | 6 | ... | 6 | 2 | |
| Caries ... | ... | 5 | 1 | 5 | 2 | |
| Necrosis ... | ... | 6 | ... | 6 | 1 | |
| Arthritis ... | 9 | 28 | ... | 37 | 2 | |
| Synovitis ... | 5 | 30 | ... | 35 | ... | |
| Ankylosis ... | 2 | ... | ... | 2 | 1 | |
| Caries of Spine ... | ... | 7 | 3 | 7 | ... | |
| Lumbago ... | ... | 9 | ... | 9 | 1 | |
| Other Diseases ... | 10 | 78 | 7 | 88 | 9 | |
| DISEASES OF THE CONNECTIVE TISSUE. | | | | | | |
| Cellulitis ... | 4 | 71 | 1 | 75 | 5 | |
| Abscess ... | 9 | 177 | 2 | 186 | 17 | |
| Œdema ... | ... | 4 | ... | 4 | ... | |
| Gangrene ... | ... | 4 | 1 | 4 | ... | |
| Elephantiasis ... | 1 | 2 | ... | 3 | 2 | |
| Other Diseases ... | ... | 2 | ... | 2 | ... | |
| <i>Carried forward ...</i> | 1,281 | 10,779 | 1,264 | 12,060 | 1,056 | |

Return of Diseases and Deaths in 1915 at the Singapore Hospitals.—Concluded.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|-----------------------------|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 1,281 | 10,779 | 1,264 | 12,060 | 1,056 | |
| DISEASES OF THE SKIN. | | | | | | |
| Urticaria ... | ... | 4 | ... | 4 | ... | |
| Eczema ... | 5 | 133 | ... | 138 | 1 | |
| Impetigo ... | ... | 4 | ... | 4 | ... | |
| Boil ... | ... | 30 | ... | 30 | ... | |
| Carbuncle ... | ... | 7 | ... | 7 | 1 | |
| Herpes ... | ... | 4 | ... | 4 | ... | |
| Emphigus ... | ... | 1 | 1 | 1 | ... | |
| Psoriasis ... | 1 | ... | ... | 1 | ... | |
| Dermatitis exfoliativa ... | ... | 2 | ... | 2 | ... | |
| Onychia ... | ... | 8 | ... | 8 | ... | |
| Whitlow ... | 1 | 3 | ... | 4 | ... | |
| Ulcer ... | 95 | 893 | ... | 988 | 73 | |
| Other Diseases ... | 1 | 28 | 1 | 29 | ... | |
| INJURIES ... | 42 | 1,544 | 62 | 1,586 | 55 | |
| POISONS ... | ... | 6 | 1 | 6 | ... | |
| TUMOURS ... | ... | 9 | ... | 9 | ... | |
| PARASITES. | | | | | | |
| Round Worm ... | 4 | 7 | ... | 11 | ... | |
| Tape-worm ... | ... | 1 | ... | 1 | ... | |
| Ankylostoma Duodenale ... | 16 | 250 | 25 | 266 | 19 | |
| Scabies ... | 2 | 106 | ... | 108 | 6 | |
| Ringworm ... | ... | 38 | ... | 38 | 1 | |
| Dhoby Itch ... | ... | 4 | ... | 4 | ... | |
| Others ... | ... | 16 | 2 | 16 | ... | |
| OBSERVATIONS ... | 14 | 222 | ... | 236 | 14 | |
| NO DISCOVERABLE DISEASE ... | ... | 135 | ... | 135 | 4 | |
| TOTAL ... | 1,462 | 14,234 | 1,356 | 15,696 | 1,230 | |

PENANG AND DINDINGS.

Return of the Statistics of Population for the Year 1915.

| | | | Europeans. | Eurasians. | Malays. | Chinese. | Indians. | Other Nationalities. | TOTAL. |
|--------------------------|------------------------|------|------------|------------|---------|----------|----------|----------------------|------------|
| Number of inhabitants in | 1915 | ... | { 1,034 | 1,590 | 37,054 | 81,457 | 24,513 | 1,695 | 147,343 P. |
| " | " | 1915 | { 19 | 5 | 5,765 | 2,075 | 1,732 | 24 | 9,620 D. |
| " | Births during the year | 1915 | { 49 | 37 | 1,293 | 2,186 | 451 | 99 | 4,115 P. |
| " | " | 1915 | { ... | 1 | 206 | 26 | 46 | ... | 279 D. |
| " | Deaths | 1915 | { 12 | 37 | 1,014 | 2,695 | 688 | 79 | 4,525 P. |
| " | " | 1915 | { ... | ... | 122 | 70 | 66 | 1 | 259 D. |
| " | Immigrants | 1915 | ... | ... | ... | 26,698 | 75,196 | ... | ... |
| " | Emigrants | 1915 | ... | ... | ... | ... | 50,320 | ... | ... |
| Number of inhabitants in | 1914 | ... | { 1,022 | 1,572 | 36,620 | 80,503 | 24,226 | 1,675 | 145,618 P. |
| " | " | 1914 | { 18 | 5 | 5,342 | 1,923 | 1,605 | 22 | 8,915 D. |
| Increase or | ... | ... | { 12 | 18 | 434 | 954 | 287 | 20 | 1,725 P. |
| " | ... | ... | { 1 | ... | 423 | 152 | 127 | 2 | 705 D. |
| Decrease | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Meteorological Return for the Year 1915.

| | TEMPERATURE. | | | | | | RAINFALL. | | WINDS. | | REMARKS. |
|-----------|----------------|-------------------|----------------|----------------|--------|---------|-------------------|---------------------|--------------------|----------------|---|
| | Solar Maximum. | Minimum on Grass. | Shade Maximum. | Shade Minimum. | Range. | Mean. | Amount in Inches. | Degree of Humidity. | General Direction. | Average Force. | |
| January | °F 143·3 | °F 72·9 | °F 90·1 | °F 73·1 | °F 17· | °F 86·6 | Inches. 2·70 | % 75·0 | N.E. | Not recorded. | Rainfall registered at Prison Hospital. |
| February | 147·2 | 73·3 | 93·0 | 73·1 | 19·9 | 83· | ·01 | 69·0 | E. | | |
| March | 143·9 | 74·4 | 92·7 | 74·4 | 18·3 | 83·5 | 5·90 | 75·0 | N. | | |
| April | 144·1 | 74·7 | 91·2 | 74·2 | 17· | 82·7 | 4·97 | 78·0 | N.E. | | |
| May | 141·1 | 72·7 | 90·5 | 74·8 | 15·7 | 82·6 | 12·94 | 78·0 | E. | | |
| June | 138·7 | 75·4 | 89·6 | 74·9 | 14·7 | 82·2 | 4·84 | 79·0 | E. | | |
| July | 141·7 | 74·6 | 89·1 | 74·5 | 14·6 | 81·8 | 8·57 | 79·0 | E. | | |
| August | 139·0 | 74·5 | 88·0 | 73·7 | 14·3 | 80·8 | 18·02 | 80·3 | E. | | |
| September | 138·4 | 73·1 | 87·1 | 73· | 14·1 | 80· | 12·69 | 82·3 | N. | | |
| October | 143·3 | 73·8 | 88·2 | 73·1 | 15·1 | 80·6 | 14·93 | 80·3 | E. | | |
| November | 135·8 | 73·2 | 86·2 | 72·8 | 13·4 | 79·5 | 18·87 | 84·2 | N. | | |
| December | 136·9 | ... | 87·1 | 72·4 | 14·7 | 79·6 | 3·25 | 76·7 | W. | | |
| Mean | 141·1 | 73·8 | 89·4 | 73·6 | 15·8 | 81·5 | 89·7 | 78·0 | E. | ... | Total Rainfall during the year—107·69" |

PENANG.

Return of Diseases and Deaths in 1915 at the following Institutions:—
General Hospital; District Hospital; Venereal Wards; Quarantine Camp, Jelutong;
Balik Pulau Hospital; Leper Hospital, Pulau Jerejak; Lumut Hospital; Female
Leper Ward, Jelutong; Female Ward, District Hospital; New Quarantine
Station, Pulau Jerejak and Prison Hospital.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| INFECTIVE DISEASES. | | | | | | |
| Beri-beri ... | 19 | 83 | 11 | 102 | 22 | |
| Chicken-pox ... | ... | 28 | ... | 28 | 7 | |
| Dengue Fever ... | ... | 2 | ... | 2 | ... | |
| Dysentery ... | 9 | 435 | 139 | 444 | 12 | |
| Enteric Fever ... | 1 | 13 | 6 | 14 | ... | |
| Gangrene ... | ... | 5 | 4 | 5 | ... | |
| Gonorrhœa ... | 3 | 104 | ... | 107 | 12 | |
| " Arthritis ... | 10 | 110 | 1 | 120 | 9 | |
| " Ophthalmia ... | 3 | 7 | ... | 10 | ... | |
| " Orchitis ... | ... | 4 | ... | 4 | ... | |
| " Epididymitis ... | ... | 5 | ... | 5 | ... | |
| Influenza ... | ... | 1 | ... | 1 | ... | |
| Leprosy ... | 424 | 208 | 144 | 632 | 442 | |
| Malaria (unclassified) ... | ... | 155 | 6 | 155 | ... | |
| " Benign Tertian ... | 33 | 588 | 8 | 621 | 31 | |
| " Quartan ... | ... | 27 | 2 | 27 | ... | |
| " Malignant Tertian ... | 13 | 340 | 49 | 353 | 7 | |
| " Chronic ... | 7 | 98 | 10 | 105 | 5 | |
| Measles ... | ... | 12 | ... | 12 | ... | |
| Mumps ... | ... | 25 | ... | 25 | ... | |
| Osteo-Myelitis ... | 1 | ... | ... | 1 | ... | |
| Phagedæna ... | 1 | 10 | 1 | 11 | ... | |
| Plague ... | ... | 1 | 1 | 1 | ... | |
| Pneumonia ... | 1 | 68 | 31 | 69 | 2 | |
| Pyæmia ... | ... | 8 | 5 | 8 | ... | |
| Pyrexia of uncertain origin ... | 2 | 180 | ... | 182 | 1 | |
| Relapsing Fever ... | ... | 1 | ... | 1 | ... | |
| Rheumatism ... | 4 | 43 | 1 | 47 | 4 | |
| Septicæmia ... | ... | 10 | 8 | 10 | ... | |
| Small-pox ... | 25 | 31 | 6 | 56 | 17 | |
| Syphilis a Primary ... | 3 | 65 | ... | 68 | ... | |
| " b Secondary ... | 33 | 660 | 8 | 693 | 23 | |
| " c Tertiary ... | 5 | 62 | 8 | 67 | 7 | |
| Tetanus ... | ... | 6 | 6 | 6 | ... | |
| Tuberculosis ... | ... | 30 | 12 | 30 | 1 | |
| Whooping cough ... | ... | 1 | ... | 1 | ... | |
| Yaws ... | ... | 2 | ... | 2 | ... | |
| INTOXICATIONS. | | | | | | |
| Alcoholism ... | ... | 18 | 1 | 18 | ... | |
| Opium habit ... | ... | 4 | 1 | 4 | ... | |
| GENERAL DISEASES NOT INCLUDED IN THE TWO PRE- CEDING GROUPS. | | | | | | |
| Anæmia ... | ... | 29 | 2 | 29 | ... | |
| " pernicious ... | ... | 2 | 1 | 2 | ... | |
| Cretinism ... | ... | 1 | ... | 1 | ... | |
| Leucocythæmia ... | ... | 2 | 1 | 2 | ... | |
| Senile Decay ... | 1 | 14 | 12 | 15 | 1 | |
| Debility ... | 3 | 22 | 5 | 25 | 2 | |
| Inanition ... | ... | 1 | 1 | 1 | ... | |
| Carried forward ... | 601 | 3,521 | 491 | 4,122 | 605 | |

* Acute entero-colitis.

Return of Diseases and Deaths in 1915 at the Penang Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward...</i> | 601 | 3,521 | 491 | 4,122 | 605 | |
| CERTAIN MORBID CONDITIONS INCIDENT TO VARIOUS PARTS. | | | | | | |
| Malformation ... | ... | 3 | ... | 3 | ... | |
| New Growths, Non-Malignant ... | 2 | 29 | 3 | 31 | 1 | |
| " Malignant ... | 3 | 60 | 24 | 63 | 5 | |
| DISEASES OF THE NERVOUS SYSTEM. | | | | | | |
| Neuritis ... | 2 | 21 | ... | 23 | 6 | |
| Myelitis ... | 1 | 3 | 2 | 4 | 1 | |
| Progressive Muscular Atrophy ... | ... | 1 | ... | 1 | ... | |
| Spastic Paraplegia ... | 3 | 9 | 2 | 12 | 3 | |
| Locomotor Ataxia ... | 3 | 2 | 1 | 5 | 3 | |
| Disseminated Sclerosis ... | ... | 1 | ... | 1 | ... | |
| Meningitis ... | ... | 2 | 2 | 2 | ... | |
| Cerebral Hæmorrhage ... | ... | 2 | 2 | 2 | ... | |
| Hydrocephalus ... | ... | 2 | ... | 2 | ... | |
| Apoplexy ... | ... | 1 | 1 | 1 | ... | |
| Paralysis ... | ... | 5 | ... | 5 | ... | |
| Paraplegia ... | 2 | 7 | 1 | 9 | 2 | |
| Hemiplegia ... | 3 | 23 | 4 | 26 | 9 | |
| Torticollis ... | ... | 1 | ... | 1 | 1 | |
| Infantile Convulsions ... | ... | 1 | 1 | 1 | ... | |
| Epilepsy ... | ... | 2 | 2 | 2 | ... | |
| Headache ... | ... | 3 | ... | 3 | 1 | |
| Hysteria ... | ... | 1 | ... | 1 | ... | |
| Neurasthenia ... | ... | 1 | ... | 1 | ... | |
| Mania ... | 1 | 3 | ... | 4 | ... | |
| Dementia ... | 1 | 4 | .. | 5 | 1 | |
| DISEASES OF THE EYE. | | | | | | |
| Conjunctivitis, Catarrhal ... | 1 | 23 | ... | 24 | ... | |
| " Purulent ... | ... | 1 | ... | 1 | ... | |
| Trachoma ... | 4 | 13 | ... | 17 | 4 | |
| Pterygium ... | ... | 2 | ... | 2 | 1 | |
| Keratitis ... | 1 | 8 | ... | 9 | 2 | |
| Ulcer Cornea ... | 5 | 25 | ... | 30 | 4 | |
| Opacity Cornea ... | ... | 10 | ... | 10 | 3 | |
| Staphyloma ... | ... | 4 | ... | 4 | 2 | |
| Iritis ... | 8 | 7 | ... | 15 | 3 | |
| Choroiditis ... | ... | 1 | ... | 1 | ... | |
| Hypopyon ... | 1 | 10 | ... | 11 | 2 | |
| Optic Atrophy ... | 2 | 7 | ... | 9 | 3 | |
| Anæmia of Retina ... | 1 | ... | ... | 1 | ... | |
| Cataract ... | 2 | 18 | ... | 20 | 2 | |
| Panophthalmitis ... | ... | 3 | ... | 3 | ... | |
| Amblyopia ... | 16 | 17 | ... | 33 | 18 | |
| Astigmatism ... | ... | 1 | ... | 1 | ... | |
| Lacrymal Abscess ... | ... | 2 | ... | 2 | ... | |
| Blepharitis Marginalis ... | ... | 1 | ... | 1 | ... | |
| Sty ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE EAR. | | | | | | |
| Inflammation Ext. Meatus ... | ... | 8 | ... | 8 | ... | |
| Otitis Media ... | ... | 12 | ... | 12 | 2 | |
| DISEASES OF THE NOSE. | | | | | | |
| Rhinitis ... | ... | 10 | ... | 10 | 1 | |
| Epistaxis ... | ... | 2 | ... | 2 | ... | |
| <i>Carried forward ...</i> | 663 | 3,894 | 536 | 4,557 | 685 | |

Return of Diseases and Deaths in 1915 at the Penang Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 663 | 3,894 | 536 | 4,557 | 685 | |
| DISEASES OF THE CIRCULATORY SYSTEM. | | | | | | |
| Pericarditis ... | ... | 2 | ... | 2 | ... | |
| Endocarditis ... | ... | 4 | 3 | 4 | ... | |
| Valvular Disease of Heart, Mitral ... | 1 | 15 | 4 | 16 | 1 | |
| Valvular Disease of Heart, Aortic ... | 2 | 20 | 9 | 22 | 4 | |
| Myocarditis ... | ... | 2 | 1 | 2 | ... | |
| Fatty Degeneration Heart ... | 1 | 1 | 1 | 2 | ... | |
| Hypertrophy Heart ... | ... | 1 | ... | 1 | ... | |
| Dilatation Heart ... | ... | 1 | ... | 1 | ... | |
| Syncope ... | ... | 3 | 3 | 3 | ... | |
| Arterial Sclerosis ... | 1 | 1 | ... | 2 | ... | |
| Aneurysm ... | 1 | 9 | 4 | 10 | ... | |
| Thrombosis ... | 1 | ... | ... | 1 | ... | |
| DISEASES OF THE RESPIRATORY SYSTEM. | | | | | | |
| Asthma ... | ... | 33 | ... | 33 | 3 | |
| Laryngitis ... | ... | 1 | ... | 1 | ... | |
| Bronchitis ... | 7 | 135 | 4 | 142 | 9 | |
| Bronchiectasis ... | ... | 1 | ... | 1 | 1 | |
| Hæmoptysis ... | ... | 2 | ... | 2 | 1 | |
| Broncho-pneumonia ... | 1 | 11 | 4 | 12 | ... | |
| Gangrene ... | ... | 2 | 1 | 2 | ... | |
| Phthisis ... | 30 | 316 | 178 | 346 | 14 | |
| Emphysema ... | ... | 5 | 1 | 5 | 1 | |
| Atelectasis ... | ... | 1 | 1 | 1 | ... | |
| Pleurisy ... | ... | 5 | ... | 5 | ... | |
| Empyema ... | ... | 12 | 4 | 12 | 1 | |
| Hydrothorax ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE DIGESTIVE SYSTEM. | | | | | | |
| Stomatitis ... | ... | 5 | ... | 5 | 1 | |
| Cancrum Oris ... | ... | 5 | 4 | 5 | 1 | |
| Caries Tooth ... | ... | 3 | ... | 3 | ... | |
| Gumboil ... | ... | 4 | ... | 4 | ... | |
| Pyorrhœa Alveolaris ... | ... | 7 | ... | 7 | 1 | |
| Tonsillitis ... | ... | 23 | ... | 23 | ... | |
| Elongated Uvula ... | ... | 3 | ... | 3 | ... | |
| Pharyngitis ... | ... | 5 | ... | 5 | ... | |
| Gastritis ... | 1 | 32 | ... | 33 | ... | |
| Gastro-enteritis ... | ... | 7 | 1 | 7 | ... | |
| Dilatation of Stomach ... | ... | 2 | ... | 2 | ... | |
| Dyspepsia ... | 3 | 55 | ... | 58 | ... | |
| Gastrodynia ... | ... | 1 | ... | 1 | ... | |
| 1. Enteritis ... | ... | 16 | 8 | 16 | 1 | |
| 2. Appendicitis ... | ... | 9 | 1 | 9 | ... | |
| 3. Colitis ... | 2 | 18 | ... | 20 | ... | |
| Duodenal Ulcer ... | ... | 2 | ... | 2 | ... | |
| Hernia Inguinal ... | ... | 34 | ... | 34 | ... | |
| " Strangulated ... | ... | 5 | ... | 5 | ... | |
| Intestinal Obstruction ... | ... | 4 | 1 | 4 | ... | |
| Diarrhœa ... | 20 | 137 | 8 | 157 | 3 | |
| Constipation ... | 2 | 26 | ... | 28 | ... | |
| Colic ... | ... | 5 | ... | 5 | ... | |
| Ischio-rectal Abscess ... | 2 | 2 | ... | 4 | ... | |
| Ulcer Rectum ... | ... | 3 | ... | 3 | ... | |
| Fissure of Anus ... | ... | 8 | ... | 8 | ... | |
| Fistula in Ano ... | 1 | 20 | ... | 21 | 2 | |
| <i>Carried forward ...</i> | 739 | 4,919 | 777 | 5,658 | 729 | |

Return of Diseases and Deaths in 1915 at the Penang Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 739 | 4,919 | 777 | 5,658 | 729 | |
| DISEASES OF THE DIGESTIVE SYSTEM.— | | | | | | |
| <i>Continued.</i> | | | | | | |
| Hæmorrhoids Internal ... | ... | 12 | ... | 12 | 1 | |
| " External ... | ... | 19 | ... | 19 | ... | |
| Prolapse Rectum ... | ... | 2 | ... | 2 | ... | |
| Stricture Rectum ... | ... | 1 | ... | 1 | ... | |
| Hepatitis ... | ... | 21 | 1 | 21 | ... | |
| Hepatic Abscess ... | ... | 9 | 6 | 9 | 1 | |
| Cirrhosis Liver ... | 4 | 49 | 13 | 53 | 6 | |
| Jaundice ... | ... | 6 | ... | 6 | ... | |
| Cholangitis Septic ... | ... | 1 | 1 | 1 | ... | |
| Peritonitis ... | 1 | 1 | 2 | 2 | ... | |
| Ascites ... | ... | 3 | ... | 3 | ... | |
| DISEASES OF THE LYMPHATIC SYSTEM. | | | | | | |
| Splenitis ... | ... | 3 | ... | 3 | ... | |
| Bubo ... | 22 | 155 | ... | 177 | 14 | |
| Adenitis ... | 2 | 12 | ... | 14 | 3 | |
| Lymphangitis ... | ... | 8 | ... | 8 | ... | |
| Elephantiasis ... | 1 | ... | ... | 1 | ... | |
| DISEASES OF THE URINARY SYSTEM. | | | | | | |
| Nephritis ... | 3 | 29 | 6 | 32 | 4 | |
| Bright's Disease ... | 11 | 47 | 18 | 58 | 3 | |
| Renal Calculus ... | ... | 1 | ... | 1 | ... | |
| Cystitis ... | ... | 5 | 3 | 5 | 1 | |
| Vesical Calculus ... | ... | 3 | ... | 3 | ... | |
| Retention of Urine ... | ... | 8 | ... | 8 | ... | |
| Chyluria ... | ... | 4 | ... | 4 | ... | |
| DISEASES OF THE GENERATIVE SYSTEM. | | | | | | |
| (MALE ORGANS.) | | | | | | |
| Urethritis ... | ... | 1 | ... | 1 | ... | |
| Periurethral Abscess ... | ... | 4 | ... | 4 | ... | |
| Stricture Urethra ... | ... | 12 | ... | 12 | 1 | |
| Urethral Fistula ... | ... | 5 | ... | 5 | ... | |
| Hypertrophy of Prostate ... | 1 | 1 | ... | 2 | ... | |
| Phimosis ... | 8 | 64 | ... | 72 | 2 | |
| Paraphimosis ... | 1 | 21 | ... | 22 | 1 | |
| Ulcer Penis ... | ... | 12 | ... | 12 | 2 | |
| Gangrene Penis ... | ... | 1 | ... | 1 | ... | |
| Soft Chancre ... | 5 | 175 | ... | 180 | 17 | |
| Abscess Scrotum ... | ... | 8 | ... | 8 | ... | |
| Sloughing Scrotum ... | 1 | 2 | ... | 3 | ... | |
| Ulcer Scrotum ... | ... | 2 | ... | 2 | ... | |
| Varicocele ... | ... | 2 | ... | 2 | ... | |
| Hydrocele ... | ... | 16 | ... | 16 | ... | |
| Orchitis ... | ... | 10 | ... | 10 | ... | |
| Epididymitis ... | ... | 8 | ... | 8 | 1 | |
| Hernia Testis ... | 1 | 11 | ... | 12 | 2 | |
| <i>Carried forward ...</i> | 800 | 5,673 | 827 | 6,473 | 788 | |

Return of Diseases and Deaths in 1915 at the Penang Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|------------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 800 | 5,673 | 827 | 6,473 | 788 | |
| DISEASES OF THE GENERATIVE SYSTEM.—Continued. | | | | | | |
| (FEMALE ORGANS.) | | | | | | |
| Salpingitis ... | ... | 1 | ... | 1 | ... | |
| Metritis ... | 1 | 11 | ... | 12 | ... | |
| Endometritis ... | ... | 2 | ... | 2 | ... | |
| Granular Erosion Cervix ... | 1 | 20 | ... | 21 | ... | |
| Hæmorrhage of Uterus ... | ... | 1 | ... | 1 | ... | |
| Retroversion and Flexion Uterus ... | 1 | 6 | ... | 7 | 2 | |
| Vaginitis ... | ... | 5 | ... | 5 | ... | |
| Vulvitis ... | ... | 3 | ... | 3 | ... | |
| Chancroids ... | 2 | 21 | ... | 23 | 2 | |
| Condyloma ... | 1 | 1 | ... | 2 | ... | |
| Dysmenorrhœa ... | ... | 3 | ... | 3 | ... | |
| Leucorrhœa ... | ... | 14 | ... | 14 | ... | |
| AFFECTIONS CONNECTED WITH PREGNANCY. | | | | | | |
| Abortion ... | ... | 2 | ... | 2 | ... | |
| Parturition ... | 1 | 21 | ... | 22 | ... | |
| Pregnancy ... | ... | 6 | ... | 6 | ... | |
| AFFECTIONS CONNECTED WITH PARTURITION. | | | | | | |
| Ulcer Perineum ... | 1 | ... | ... | 1 | ... | |
| DISEASES OF THE ORGANS OF LOCOMO- TION. | | | | | | |
| <i>a.</i> Osteitis ... | ... | 2 | ... | 2 | ... | |
| <i>b.</i> Periostitis ... | ... | 3 | ... | 3 | ... | |
| Caries ... | ... | 4 | ... | 4 | 1 | |
| Necrosis ... | 2 | 9 | ... | 11 | 2 | |
| Arthritis ... | 2 | 9 | ... | 11 | ... | |
| Synovitis ... | 3 | 35 | ... | 38 | ... | |
| Sacro-iliac Disease ... | ... | 2 | ... | 2 | 1 | |
| Psoas Abscess ... | ... | 4 | 1 | 4 | ... | |
| Myalgia ... | ... | 12 | ... | 12 | ... | |
| Lumbago ... | 1 | 6 | ... | 7 | 1 | |
| Bursitis ... | ... | 3 | ... | 3 | ... | |
| DISEASES OF THE CONNECTIVE TISSUE. | | | | | | |
| Cellulitis ... | 1 | 38 | 1 | 39 | 1 | |
| Abscess ... | 10 | 182 | <i>a</i> 1 | 192 | 1 | |
| Sinus ... | 3 | 45 | ... | 48 | 4 | |
| Gangrene ... | ... | 10 | ... | 10 | 1 | |
| Elephantiasis Leg ... | ... | 1 | ... | 1 | ... | |
| <i>Carried forward ...</i> | 830 | 6,155 | 830 | 6,985 | 804 | |

(a) Septicæmia.

Return of Diseases and Deaths in 1915 at the Penang Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|------------------------------|---|------------------|------------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward</i> ... | 830 | 6,155 | 830 | 6,985 | 804 | |
| DISEASES OF THE SKIN. | | | | | | |
| Urticaria ... | ... | 2 | ... | 2 | ... | |
| Eczema ... | 1 | 37 | ... | 38 | 3 | |
| Furuncle ... | ... | 8 | ... | 8 | 1 | |
| Carbuncle ... | ... | 8 | ... | 8 | ... | |
| Herpes ... | 1 | 5 | ... | 6 | ... | |
| Warts ... | 1 | 8 | ... | 9 | ... | |
| Onychia ... | ... | 7 | ... | 7 | ... | |
| Whitlow ... | ... | 6 | ... | 6 | ... | |
| Ulcer ... | 69 | 1,000 | ... | 1,069 | 111 | |
| General Injuries ... | 4 | 28 | 2 | 32 | 2 | |
| Local " ... | 30 | 391 | 6 | 421 | 18 | |
| POISONS. | | | | | | |
| Opium ... | ... | 2 | 2 | 2 | ... | |
| Ptomaine ... | ... | 2 | ... | 2 | ... | |
| PARASITES. | | | | | | |
| Ankylostomiasis ... | 13 | 226 | 37 | 239 | 14 | |
| Scabies ... | 5 | 97 | ... | 102 | ... | |
| Tinea Imbricata ... | ... | 8 | ... | 8 | ... | |
| Ringworm ... | ... | 18 | ... | 18 | 2 | |
| Ascaris Lumbricoides ... | 1 | 9 | ... | 10 | 2 | |
| Guinea-Worm ... | ... | 4 | ... | 4 | ... | |
| MISCELLANEOUS. | | | | | | |
| Malingering ... | ... | 2 | ... | 2 | ... | |
| No Discoverable Disease ... | 1 | 29 | ... | 30 | ... | |
| Observation ... | ... | 94 | ... | 94 | ... | |
| Observation for Insanity ... | 4 | 129 | ... | 133 | 29 | |
| Isolated Contacts ... | 36 | 40 | ... | 76 | 6 | |
| OPERATION. | | | | | | |
| Amputation Leg ... | 4 | ... | ... | 4 | ... | |
| GRAND TOTAL ... | 1,000 | 8,315 | 877 | 9,315 | 992 | |

PROVINCE WELLESLEY.

Return of the Statistics of Population for the Year 1915.

| | Europeans. | Eurasians. | Malays. | Chinese. | Indians. | Other Nationalities. | Marknown. | TOTAL. |
|--------------------------------------|----------------------|------------|---------|----------|----------|----------------------|-----------|---------|
| Number of inhabitants in 1915 | 260 | 207 | 77,006 | 32,969 | 22,811 | 997 | ... | 134,250 |
| „ Births during the year 1915 | 6 | 7 | 2,861 | 840 | 634 | 11 | ... | 4,359 |
| „ Deaths „ „ 1915 | 3 | 4 | 1,796 | 954 | 744 | 10 | 1 | 3,512 |
| „ Immigrants „ 1915 | } No data available. | | | | | | | |
| „ Emigrants „ 1915 | | | | | | | | |
| Number of inhabitants in 1914 | 257 | 204 | 75,941 | 33,083 | 22,921 | 996 | ... | 133,402 |
| Increase | 3 | 3 | 1,065 | ... | ... | 1 | ... | 1,072 |
| Decrease | ... | ... | ... | 114 | 110 | ... | ... | 224 |

Meteorological Return for the Year 1915.

| | TEMPERATURE. | | | | | | RAINFALL. | | WINDS. | | REMARKS. |
|------------------|----------------|-------------------|----------------|----------------|--------|-------|-------------------|---------------------|--------------------|----------------|----------|
| | Solar Maximum. | Minimum on Grass. | Shade Maximum. | Shade Minimum. | Range. | Mean. | Amount in Inches. | Degree of Humidity. | General Direction. | Average Force. | |
| | °F | °F | °F | °F | °F | °F | Inches. | % | | | |
| January | | 71.4 | 91.7 | 73.6 | 18.1 | 82.6 | 5.93 | 77.0 | N.W. | ... | |
| February | | 70.7 | 94.1 | 72.5 | 21.6 | 83.1 | .92 | 71.0 | N. | ... | |
| March | | 72.6 | 94. | 73.5 | 20.5 | 83.7 | 8.29 | 73.0 | S.W. | ... | |
| April | | 73.7 | 92.6 | 73.9 | 18.7 | 83.2 | 13.92 | 78.0 | S.W. | ... | |
| May | 141.1 | 74.8 | 92.1 | 75. | 17.1 | 83.5 | 5.97 | 79.0 | S.W. | ... | |
| June | 142.5 | 74.4 | 91.1 | 74.8 | 16.3 | 82.9 | 12.03 | 80.0 | N.W. | ... | |
| July | 142.6 | 73.8 | 90.8 | 73.8 | 17. | 82.3 | 10.60 | 78.0 | S.W. | ... | |
| August | 142.4 | 72.4 | 88.5 | 74.3 | 14.2 | 81.4 | 16.50 | 80.0 | S.W. | ... | |
| September | 147.7 | 72.2 | 89.7 | 72.7 | 17. | 81.2 | 8.30 | 78.0 | S.W. | ... | |
| October | 150.3 | 72.2 | 89.2 | 76.2 | 13. | 82.7 | 9.16 | 76.0 | S.W. | ... | |
| November | 128.7 | 71.4 | 91.2 | 74.2 | 17. | 82.7 | 12.34 | 80.0 | S.W. | ... | |
| December | 125.9 | 71.3 | 90.5 | 74.3 | 16.2 | 82.4 | 2.48 | 72.0 | N.W. | ... | |
| Mean | | ... | ... | ... | ... | ... | Total 106.44 | ... | ... | ... | |

PROVINCE WELLESLEY.

Return of Diseases and Deaths in 1915 at the following Institutions:—
 Butterworth, Bukit Mertajam and Sungai Bakap Hospitals.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| INFECTIVE DISEASES. | | | | | | |
| Beri-beri ... | 3 | 13 | 4 | 16 | 2 | |
| Chicken-pox ... | ... | 1 | 1 | 1 | ... | |
| Cholera ... | ... | 5 | 3 | 5 | ... | |
| Dysentery ... | ... | 71 | 29 | 71 | ... | |
| Gangrene ... | ... | 1 | ... | 1 | ... | |
| Gonorrhœa ... | 2 | 47 | 2 | 49 | 2 | |
| Gonorrhœal Arthritis ... | 1 | 24 | ... | 25 | 1 | |
| " Synovitis ... | 1 | 4 | ... | 5 | ... | |
| " Ophthalmia ... | ... | 3 | ... | 3 | ... | |
| " Stricture Urethra ... | ... | 1 | ... | 1 | ... | |
| " Cystitis ... | ... | 1 | ... | 1 | ... | |
| " Orchitis ... | ... | 3 | ... | 3 | ... | |
| " Epididymitis ... | ... | 2 | ... | 2 | ... | |
| " Pyelitis ... | ... | 1 | 1 | 1 | ... | |
| Leprosy ... | ... | 19 | 2 | 19 | ... | |
| Malarial Fever, B. Tertian ... | 1 | 120 | 1 | 121 | 1 | |
| " Quartan ... | ... | 8 | 1 | 8 | 1 | |
| Malarial Fever, Malignant Tertian ... | 1 | 123 | 21 | 124 | ... | |
| Malarial Cachexia ... | ... | 30 | 2 | 30 | ... | |
| Mumps ... | 1 | ... | ... | 1 | ... | |
| Acute Infective Osteo Myelitis ... | ... | 1 | 1 | 1 | ... | |
| Phagedæna ... | 2 | 20 | 2 | 22 | ... | |
| Pneumonia ... | ... | 29 | 15 | 29 | 1 | |
| Pyrexia ... | 1 | 89 | ... | 90 | ... | |
| Rheumatism ... | 1 | 14 | ... | 15 | ... | |
| Septicæmia ... | ... | 1 | ... | 1 | ... | |
| Small-pox ... | ... | 5 | ... | 5 | ... | |
| Syphilis, Primary ... | 2 | 38 | ... | 40 | ... | |
| " Secondary ... | 17 | 198 | 2 | 215 | 22 | |
| " Tertiary ... | 3 | 25 | 2 | 28 | 6 | |
| Syphilitic Arthritis ... | ... | 8 | ... | 8 | ... | |
| Tetanus ... | ... | 2 | 2 | 2 | ... | |
| Tuberculosis ... | ... | 6 | 2 | 6 | ... | |
| Yaws ... | ... | 1 | ... | 1 | ... | |
| INTOXICATIONS. | | | | | | |
| Alcoholism ... | ... | 10 | ... | 10 | ... | |
| Delirium Tremens ... | ... | 1 | 1 | 1 | ... | |
| Pellagra ... | ... | 1 | ... | 1 | ... | |
| GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS. | | | | | | |
| Anæmia ... | ... | 11 | 2 | 11 | ... | |
| Diabetes Mellitus ... | ... | 2 | 1 | 2 | ... | |
| Rheumatoid Arthritis ... | ... | 2 | ... | 2 | ... | |
| CERTAIN MORBID CON- DITIONS INCIDENT TO VARIOUS PARTS. | | | | | | |
| Malformations ... | ... | 1 | ... | 1 | ... | |
| New-growth, Non-Malignant ... | ... | 5 | ... | 5 | 1 | |
| " Malignant ... | ... | 17 | 3 | 17 | ... | |
| Carried forward ... | 36 | 964 | 100 | 1,000 | 37 | |

*Return of Diseases and Deaths in 1915 at the Province Wellesley
Hospitals.—Continued.*

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 36 | 964 | 100 | 1,000 | 37 | |
| DISEASES OF THE NERVOUS SYSTEM. | | | | | | |
| Neuritis ... | ... | 8 | ... | 8 | 1 | |
| Myelitis ... | 1 | 1 | ... | 2 | 1 | |
| Spastic Paraplegia ... | 1 | 3 | ... | 4 | ... | |
| Meningitis Cerebral ... | ... | 5 | 4 | 5 | ... | |
| Apoplexy ... | ... | 2 | 2 | 2 | ... | |
| Paraplegia ... | 1 | 6 | 1 | 7 | 1 | |
| Hemiplegia ... | 3 | 13 | 3 | 16 | 3 | |
| Eclampsia Puerperal ... | ... | 3 | 1 | 3 | ... | |
| Epilepsy ... | ... | 2 | ... | 2 | ... | |
| Cephalalgia ... | ... | 5 | ... | 5 | ... | |
| Neuralgia ... | ... | 2 | ... | 2 | ... | |
| DISEASES OF THE EYE. | | | | | | |
| Conjunctivitis ... | ... | 12 | ... | 12 | ... | |
| Keratitis ... | ... | 1 | ... | 1 | ... | |
| Ulcer Cornea ... | ... | 9 | ... | 9 | 2 | |
| Opacity Cornea ... | 1 | 1 | ... | 2 | 1 | |
| Glaucoma ... | 1 | ... | ... | 1 | ... | |
| Optic Atrophy ... | ... | 1 | ... | 1 | ... | |
| Cataract ... | 1 | 2 | ... | 3 | ... | |
| Panophthalmitis ... | ... | 2 | ... | 2 | ... | |
| Myopia ... | ... | 2 | ... | 2 | ... | |
| Dacryo-cystitis ... | ... | 1 | ... | 1 | ... | |
| Entropion ... | ... | 2 | ... | 2 | ... | |
| DISEASES OF THE EAR. | | | | | | |
| External Ear, Inflammation. ... | ... | 4 | ... | 4 | ... | |
| DISEASES OF THE NOSE. | | | | | | |
| Coryza ... | ... | 3 | ... | 3 | ... | |
| DISEASES OF THE CIRCULATORY SYSTEM. | | | | | | |
| Valvular Disease, Heart ... | 2 | 25 | 9 | 27 | ... | |
| Dilatation Heart ... | ... | 2 | 1 | 2 | ... | |
| Angina Pectoris ... | ... | 1 | ... | 1 | ... | |
| Aneurysm of Aorta ... | ... | 1 | 1 | 1 | ... | |
| Varix ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE RESPIRATORY SYSTEM. | | | | | | |
| Asthma ... | ... | 10 | ... | 10 | ... | |
| Laryngitis ... | ... | 1 | ... | 1 | ... | |
| Bronchitis ... | 1 | 64 | 2 | 65 | 2 | |
| Bronchiectasis ... | ... | 1 | ... | 1 | ... | |
| Broncho-Pneumonia ... | ... | 3 | 2 | 3 | ... | |
| Phthisis ... | 3 | 69 | 41 | 72 | 4 | |
| Pleurisy ... | ... | 5 | ... | 5 | ... | |
| Empyema ... | ... | 2 | 1 | 2 | ... | |
| <i>Carried forward ...</i> | 51 | 1,239 | 168 | 1,290 | 52 | |

Return of Diseases and Deaths in 1915 at the Province Wellesley Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 51 | 1,239 | 168 | 1,290 | 52 | |
| DISEASES OF THE DIGESTIVE SYSTEM. | | | | | | |
| Cancrum Oris ... | ... | 1 | 1 | 1 | ... | |
| Necrosis Jaw ... | ... | 1 | 1 | 1 | ... | |
| Gum-boil ... | ... | 2 | ... | 2 | ... | |
| Alveolar Abscess ... | ... | 1 | ... | 1 | ... | |
| Caries Tooth ... | ... | 1 | ... | 1 | ... | |
| Sorethroat ... | ... | 3 | ... | 3 | ... | |
| Ulcer Palate ... | ... | 1 | ... | 1 | ... | |
| Parotitis ... | ... | 1 | ... | 1 | ... | |
| Pharyngitis ... | ... | 1 | ... | 1 | ... | |
| Gastritis ... | ... | 3 | ... | 3 | ... | |
| Dyspepsia ... | ... | 11 | ... | 11 | ... | |
| Gastralgia ... | ... | 1 | ... | 1 | ... | |
| Enteritis ... | 1 | 49 | 17 | 50 | ... | |
| Appendicitis ... | ... | 1 | ... | 1 | ... | |
| Appendicular Abscess ... | ... | 1 | ... | 1 | ... | |
| Colitis ... | ... | 9 | ... | 9 | 1 | |
| Hernia, Inguinal ... | 1 | 12 | ... | 13 | ... | |
| Diarrhoea ... | ... | 18 | 3 | 18 | 1 | |
| Constipation ... | ... | 3 | ... | 3 | ... | |
| Colic (Intestinal) ... | ... | 10 | ... | 10 | 1 | |
| Ischio-rectal Abscess ... | ... | 2 | ... | 2 | ... | |
| Hæmorrhoids (external) ... | ... | 2 | ... | 2 | ... | |
| Cirrhosis Liver ... | 3 | 17 | 9 | 20 | ... | |
| Jaundice ... | ... | 2 | ... | 2 | ... | |
| Peritonitis ... | ... | 3 | 2 | 3 | ... | |
| DISEASES OF THE LYMPHATIC SYSTEM. | | | | | | |
| Adenitis ... | ... | 19 | ... | 19 | ... | |
| Bubo ... | ... | 27 | ... | 27 | 2 | |
| DISEASES OF THE URINARY SYSTEM. | | | | | | |
| Nephritis ... | ... | 8 | 1 | 8 | ... | |
| Bright's Disease ... | 2 | 18 | 7 | 20 | ... | |
| Calculus Kidney ... | ... | 2 | ... | 2 | ... | |
| Cystitis ... | ... | 2 | ... | 2 | ... | |
| Vesical Fistula ... | ... | 1 | ... | 1 | ... | |
| Vesical Calculus ... | ... | 2 | ... | 2 | ... | |
| DISEASES OF THE GENERATIVE SYSTEM. | | | | | | |
| (MALE ORGANS.) | | | | | | |
| Urethritis ... | ... | 1 | ... | 1 | ... | |
| Urethral Abscess ... | ... | 2 | ... | 2 | 1 | |
| Stricture Urethra ... | ... | 6 | ... | 6 | ... | |
| Urethral Fistula ... | ... | 2 | ... | 2 | ... | |
| Phimosis ... | ... | 1 | ... | 1 | ... | |
| Balanitis ... | ... | 1 | ... | 1 | ... | |
| Soft Chancre ... | 2 | 80 | ... | 82 | 3 | |
| Hydrocele ... | ... | 5 | ... | 5 | ... | |
| Orchitis ... | ... | 1 | ... | 1 | ... | |
| Abscess Testis ... | ... | 1 | ... | 1 | ... | |
| Hernia .. | ... | 1 | ... | 1 | ... | |
| (FEMALE ORGANS.) | | | | | | |
| Subinvolution of Uterus ... | ... | 1 | ... | 1 | ... | |
| Anteversio of Uterus ... | ... | 2 | ... | 2 | ... | |
| Amenorrhœa ... | ... | 1 | ... | 1 | ... | |
| Dysmenorrhœa ... | ... | 1 | ... | 1 | ... | |
| <i>Carried forward ...</i> | 60 | 1,580 | 209 | 1,640 | 61 | |

*Return of Diseases and Deaths in 1915 at the Province Wellesley
Hospitals.—Continued.*

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 60 | 1,580 | 209 | 1,640 | 61 | |
| AFFECTIONS CONNECTED WITH PREGNANCY. | | | | | | |
| Abortion ... | ... | 3 | ... | 3 | ... | |
| AFFECTIONS CONNECTED WITH PARTURITION. | | | | | | |
| Parturition (Normal) ... | ... | 2 | ... | 2 | ... | |
| Malposition of Fœtus ... | ... | 1 | ... | 1 | ... | |
| Plural Births ... | ... | 2 | ... | 2 | ... | |
| Asphyxia Neonatorum ... | ... | 1 | ... | 1 | ... | |
| Premature Birth ... | ... | 1 | 1 | 1 | ... | |
| AFFECTIONS CONSEQUENT ON PARTURITION. | | | | | | |
| Puerperal Sapræmia ... | ... | 5 | 1 | 5 | ... | |
| DISEASES OF THE ORGANS OF LOCOMOTION. | | | | | | |
| Osteo-Myelitis ... | ... | 1 | ... | 1 | 1 | |
| Periostitis ... | ... | 4 | ... | 4 | ... | |
| Caries ... | 1 | 3 | ... | 4 | ... | |
| Necrosis ... | ... | 4 | ... | 4 | ... | |
| Arthritis ... | 2 | 7 | ... | 9 | ... | |
| Synovitis ... | ... | 6 | ... | 6 | ... | |
| Stiff Joint ... | ... | 2 | ... | 2 | ... | |
| Psoas Abscess ... | 1 | ... | ... | 1 | ... | |
| Myositis ... | ... | 5 | ... | 5 | ... | |
| Myalgia ... | ... | 10 | ... | 10 | ... | |
| Bursitis ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE CONNECTIVE TISSUE. | | | | | | |
| Cellulitis ... | 3 | 27 | 2 | 30 | 2 | |
| Abscess ... | 1 | 55 | 1 | 56 | 1 | |
| DISEASES OF THE SKIN. | | | | | | |
| Urticaria ... | ... | 1 | ... | 1 | ... | |
| Eczema ... | ... | 19 | ... | 19 | ... | |
| Impetigo ... | ... | 1 | ... | 1 | ... | |
| Boil ... | ... | 8 | ... | 8 | ... | |
| Carbuncle ... | ... | 3 | ... | 3 | ... | |
| Gangrene Skin ... | ... | 2 | 1 | 2 | ... | |
| Herpes Zoster ... | ... | 1 | ... | 1 | ... | |
| <i>Carried forward ...</i> | 68 | 1,755 | 215 | 1,823 | 65 | |

*Return of Diseases and Deaths in 1915 at the Province Wellesley
Hospitals.—Concluded.*

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 68 | 1,755 | 215 | 1,823 | 65 | |
| DISEASES OF THE SKIN.—Continued. | | | | | | |
| Wart ... | ... | 1 | ... | 1 | ... | |
| Onychia ... | ... | 1 | ... | 1 | ... | |
| Ulcer ... | 2 | 52 | 2 | 54 | 6 | |
| INJURIES ... | 11 | 349 | 11 | 360 | 14 | |
| POISONS. | | | | | | |
| Mercurial Stomatitis ... | ... | 1 | ... | 1 | ... | |
| PARASITES. | | | | | | |
| Ankylostomiasis ... | 52 | 335 | 54 | 367 | 16 | |
| Ascaris Lumbricoides ... | ... | 10 | ... | 10 | ... | |
| Tricocephalus Dispar ... | ... | 1 | ... | 1 | ... | |
| Ringworms ... | ... | 2 | ... | 2 | ... | |
| Scabies ... | ... | 19 | ... | 19 | ... | |
| MISCELLANEOUS. | | | | | | |
| Observation ... | ... | 40 | ... | 40 | ... | |
| Observation for Insanity ... | ... | 13 | ... | 13 | ... | |
| No Discoverable Disease ... | ... | 11 | ... | 11 | ... | |
| GRAND TOTAL ... | 113 | 2,590 | 282 | 2,703 | 101 | |

MALACCA.

Return of the Statistics of Population for the Year 1915.

| | Europeans. | Eurasians. | Malays. | Chinese. | Indians. | Other Nationalities. | TOTAL. |
|-----------------------------------|------------|--------------------|---------|----------|----------|----------------------|---------|
| Number of inhabitants in 1914 ... | 329 | 1,665 | 85,288 | 38,362 | 8,117 | 464 | 134,225 |
| „ Births during the year 1915 | 5 | 67 | 3,820 | 881 | 156 | 149 | 5,078 |
| „ Deaths „ „ 1915 | 1 | 48 | 3,218 | 1,206 | 407 | 101 | 4,981 |
| „ Immigrants „ „ 1915 | } | No data available. | | | | | |
| „ Emigrants „ „ 1915 | | | | | | | |
| Number of inhabitants in 1915 ... | 338 | 1,709 | 87,552 | 39,380 | 8,333 | 476 | 137,788 |
| Increase or Decrease ... | 9 | 44 | 2,264 | 1,018 | 216 | 12 | 3,563 |
| Decrease ... | ... | ... | ... | ... | ... | ... | ... |

Meteorological Return for the Year 1915.

| | TEMPERATURE. | | | | | | RAINFALL. | | WINDS. | | REMARKS. |
|---------------|----------------|-------------------|----------------|----------------|---------|---------|-------------------|---------------------|--------------------|----------------|----------|
| | Solar Maximum. | Minimum on Grass. | Shade Maximum. | Shade Minimum. | Range. | Mean. | Amount in Inches. | Degree of Humidity. | General Direction. | Average Force. | |
| January ... | °F 147.6 | °F ... | °F 87.4 | °F 69.7 | °F 17.7 | °F 81.8 | Ins. 5.35 | % 87.0 | N. | ... | |
| February ... | 159.5 | ... | 90.1 | 71. | 19.1 | 83. | 1.87 | 83.0 | N. | ... | |
| March ... | 160.2 | ... | 90.6 | 72.7 | 17.9 | 83.9 | 4.59 | 83.0 | N. | ... | |
| April ... | 156.6 | ... | 89.1 | 72.2 | 16.9 | 82.6 | 12.51 | 87.0 | N. | ... | |
| May ... | 157.9 | ... | 89.9 | 72.3 | 17.6 | 84.1 | 6.84 | 85.0 | N. | ... | |
| June ... | 153.4 | ... | 88.4 | 72.1 | 16.3 | 83.4 | 7.84 | 87.0 | N. | ... | |
| July ... | 147.8 | ... | 87.8 | 70.2 | 17.6 | 82. | 17.98 | 87.0 | N.W. | ... | |
| August ... | 152.7 | ... | 88.9 | 71.7 | 17.2 | 82.9 | 9.30 | 86.0 | N.W. | ... | |
| September ... | 148.6 | ... | 87.4 | 70.4 | 17. | 82.1 | 6.00 | 92.0 | N.W. | ... | |
| October ... | 150.5 | ... | 87.9 | 72.1 | 15.8 | 82.7 | 12.00 | 88.0 | N.W. | ... | |
| November ... | 147.4 | ... | 87. | 71.9 | 15.1 | 82.5 | 11.06 | 89.0 | N. | ... | |
| December ... | 142.9 | ... | 87. | 71.4 | 15.6 | 82.1 | 5.95 | 84.0 | N. | ... | |
| Mean ... | 152. | .. | 88.5 | 71.5 | 17. | 82.7 | 101.29 | 86.0 | N. | ... | |

MALACCA.

Return of Diseases and Deaths in 1915 at the following Institutions:—General, Pauper, Gaol, Alor Gajah, Jasin and District Hospitals.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| INFECTIVE DISEASES. | | | | | | |
| Blackwater Fever ... | ... | 1 | ... | 1 | ... | |
| Beri-beri ... | 46 | 205 | 21 | 251 | 21 | |
| Chicken-pox ... | ... | 5 | ... | 5 | 1 | |
| Dysentery ... | 7 | 174 | 45 | 181 | 9 | |
| Gonorrhoea ... | 3 | 96 | ... | 99 | 6 | |
| " Rheumatism ... | 2 | 17 | ... | 19 | 1 | |
| Leprosy ... | ... | 12 | 4 | 12 | 3 | |
| Malaria ... | 1 | 10 | ... | 11 | ... | |
| " Benign ... | 1 | 13 | ... | 14 | ... | |
| " Quartan ... | ... | 2 | ... | 2 | ... | |
| " Malignant ... | 52 | 1,384 | 82 | 1,436 | 35 | |
| " Chronic ... | 8 | 156 | 3 | 164 | 13 | |
| " Neuritis ... | 1 | 14 | ... | 15 | 1 | |
| Measles ... | ... | 4 | ... | 4 | ... | |
| Mumps ... | ... | 1 | ... | 1 | ... | |
| Periostitis ... | ... | 1 | ... | 1 | ... | |
| Phagedæna ... | ... | 3 | 3 | 3 | ... | |
| Pneumonia ... | 1 | 170 | 60 | 171 | 7 | |
| Pyæmia ... | ... | 2 | 2 | 2 | ... | |
| Pyrexia ... | 2 | 10 | ... | 12 | ... | |
| Rheumatism ... | 4 | 43 | ... | 47 | 5 | |
| Septicæmia ... | ... | 1 | 1 | 1 | ... | |
| Syphilis, Primary ... | ... | 15 | ... | 15 | ... | |
| " Secondary ... | 9 | 151 | 2 | 160 | 9 | |
| " Tertiary ... | ... | 16 | ... | 16 | 6 | |
| Syphilitic Iritis ... | ... | 1 | ... | 1 | ... | |
| " Ulcer ... | ... | 1 | ... | 1 | ... | |
| " " Pharynx ... | ... | 1 | ... | 1 | ... | |
| " Warts ... | ... | 1 | ... | 1 | ... | |
| Tetanus ... | ... | 1 | 1 | 1 | ... | |
| Tuberculosis ... | ... | 3 | 1 | 3 | ... | |
| Pertussis ... | ... | 1 | ... | 1 | ... | |
| INTOXICATION. | | | | | | |
| Alcoholism ... | ... | 2 | ... | 2 | ... | |
| Delerium Tremens ... | ... | 1 | 1 | 1 | ... | |
| Opium Habit ... | ... | 2 | ... | 2 | ... | |
| Ptomaine Poison ... | ... | 1 | ... | 1 | ... | |
| GENERAL DISEASES NOT INCLUDED IN THE TWO PRECEDING GROUPS. | | | | | | |
| Anæmia ... | ... | 58 | 11 | 58 | ... | |
| " Pernicious ... | ... | 1 | ... | 1 | ... | |
| Lymphadenoma ... | ... | 1 | ... | 1 | ... | |
| CERTAIN MORBID CONDITIONS INCIDENT TO VARIOUS PARTS. | | | | | | |
| Malformation ... | ... | 1 | ... | 1 | ... | |
| New Growth, Non-Malignant ... | 1 | 4 | ... | 5 | 1 | |
| " Malignant ... | ... | 7 | 4 | 7 | 1 | |
| Carried forward ... | 138 | 2,593 | 241 | 2,731 | 119 | |

Return of Diseases and Deaths in 1915 at the Malacca Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 138 | 2,593 | 241 | 2,731 | 119 | |
| DISEASES OF THE NERVOUS SYSTEM. | | | | | | |
| Neuritis ... | ... | 32 | ... | 32 | 1 | |
| " Peripheral ... | 1 | ... | ... | 1 | ... | |
| Myelitis ... | 1 | 1 | 1 | 2 | 1 | |
| Locomotor Ataxia ... | 1 | 9 | ... | 10 | 3 | |
| Meningitis ... | ... | 2 | 2 | 2 | ... | |
| Cerebral Embolism ... | ... | 1 | ... | 1 | ... | |
| Sclerosis Desseminated ... | 1 | 1 | 1 | 2 | ... | |
| Paraplegia ... | 1 | 6 | 3 | 7 | 3 | |
| Hemiplegia ... | ... | 12 | ... | 12 | 5 | |
| Paralysis Deltoid ... | ... | 1 | ... | 1 | ... | |
| St. Vitus's Dance ... | ... | 1 | ... | 1 | ... | |
| Epilepsy ... | ... | 3 | ... | 3 | 1 | |
| Headache ... | ... | 1 | ... | 1 | ... | |
| Neuralgia Sciatico Nerve ... | ... | 5 | ... | 5 | ... | |
| Neurasthenia ... | ... | 1 | ... | 1 | ... | |
| Insomnia ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE EYE. | | | | | | |
| Conjunctivitis ... | ... | 19 | ... | 19 | ... | |
| " Catarrhal ... | ... | 3 | ... | 3 | ... | |
| Keratitis ... | ... | 4 | ... | 4 | ... | |
| Ulcer Cornea ... | 1 | 28 | ... | 29 | 1 | |
| Opacity ... | ... | 8 | ... | 8 | 1 | |
| Staphyloma ... | ... | 1 | ... | 1 | 1 | |
| Iritis ... | ... | 11 | ... | 11 | 1 | |
| Cataract ... | ... | 3 | ... | 3 | ... | |
| Shrunken Eye-ball ... | 1 | ... | ... | 1 | ... | |
| Dacryo Cystitis Chronic ... | ... | 1 | ... | 1 | ... | |
| Blepharitis ... | ... | 1 | ... | 1 | ... | |
| Sty ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE EAR. | | | | | | |
| Inflammation Ext. Ear ... | ... | 8 | ... | 8 | ... | |
| Accumulation Wax ... | ... | 3 | ... | 3 | ... | |
| Inflammation Mid. Ear ... | ... | 1 | ... | 1 | ... | |
| Mastoid Disease ... | ... | 1 | ... | 1 | 1 | |
| DISEASES OF THE NOSE. | | | | | | |
| Coryza ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE CIRCULATORY SYSTEM. | | | | | | |
| Mitral Incompetence ... | ... | 1 | ... | 1 | ... | |
| Arterial Degeneration ... | ... | 1 | 1 | 1 | ... | |
| Dilatation ... | ... | 2 | 1 | 2 | ... | |
| DISEASES OF THE RESPIRATORY SYSTEM. | | | | | | |
| Asthma ... | 2 | 32 | ... | 34 | 3 | |
| Bronchitis ... | ... | 78 | ... | 78 | 2 | |
| Congestion ... | 2 | 16 | 2 | 18 | ... | |
| Broncho-pneumonia ... | ... | 1 | ... | 1 | ... | |
| Phthisis ... | 14 | 165 | 79 | 179 | 7 | |
| Emphysema ... | ... | 1 | 1 | 1 | ... | |
| Pleurisy ... | 1 | 16 | 2 | 17 | 1 | |
| Empyema ... | ... | ... | 3 | 6 | ... | |
| <i>Carried forward ...</i> | 164 | 3,083 | 337 | 3,247 | 151 | |

Return of Diseases and Deaths in 1915 at the Malacca Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward...</i> | 164 | 3,083 | 337 | 3,247 | 151 | |
| DISEASES OF THE DIGESTIVE SYSTEM. | | | | | | |
| Stomatitis | ... | 2 | ... | 2 | 1 | |
| Necrosis Jaw | ... | 1 | ... | 1 | ... | |
| Caries Tooth | ... | 3 | ... | 3 | ... | |
| Gum-boil | ... | 4 | ... | 4 | ... | |
| Pyorrhœa Alveolaris | ... | 3 | ... | 3 | ... | |
| Tonsillitis | ... | 3 | ... | 3 | ... | |
| Abscess Tonsil | ... | 1 | ... | 1 | ... | |
| Pharyngitis | ... | 55 | ... | 55 | 2 | |
| Gastritis | 1 | 6 | ... | 7 | 2 | |
| Gastric Ulcer | ... | 1 | ... | 1 | ... | |
| Dilatation Stomach | ... | 1 | ... | 1 | ... | |
| Dyspepsia | 1 | 8 | ... | 9 | ... | |
| Gastralgia | ... | 1 | ... | 1 | ... | |
| Enteritis | ... | 8 | ... | 8 | ... | |
| Appendicitis | ... | 5 | 1 | 5 | 1 | |
| Colitis | ... | 1 | ... | 1 | ... | |
| Gastro Enteritis | ... | 2 | 1 | 2 | ... | |
| Hernia Inguinal | ... | 2 | ... | 2 | 1 | |
| Bubonocœle | ... | 1 | ... | 1 | ... | |
| Diarrhœa | 6 | 115 | 33 | 121 | 3 | |
| Constipation | 1 | 13 | ... | 14 | ... | |
| Colic Intestinal | ... | 21 | ... | 21 | 1 | |
| Ischio Rectal Abscess | ... | 1 | ... | 1 | ... | |
| Abscess Anus | ... | 2 | ... | 2 | ... | |
| Ulcer Anus | ... | 2 | ... | 2 | ... | |
| Condyloma Anus | ... | 2 | ... | 2 | 1 | |
| Fissure Anus | ... | 2 | ... | 2 | ... | |
| Fistula in Ano | ... | 2 | ... | 2 | ... | |
| Gangrene Rectum | ... | 1 | 1 | 1 | ... | |
| Hæmorrhoids | ... | 7 | ... | 7 | ... | |
| Cirrhosis Liver | 4 | 30 | 12 | 34 | 2 | |
| Abscess Liver | ... | 3 | 2 | 3 | ... | |
| Congestion Liver | ... | 2 | ... | 2 | ... | |
| Biliary Tuberculosis | ... | 1 | 1 | 1 | ... | |
| Jaundice | ... | 2 | ... | 2 | ... | |
| Peritonitis | ... | 7 | 6 | 7 | ... | |
| DISEASES OF THE LYMPHATIC SYSTEM. | | | | | | |
| Lymphadenitis | 1 | 6 | ... | 7 | 1 | |
| Bubo | 1 | 23 | ... | 24 | 1 | |
| DISEASES OF THE URINARY SYSTEM. | | | | | | |
| Bright's Disease | 1 | 2 | ... | 3 | ... | |
| Nephritis Chronic | 5 | 53 | 18 | 58 | 4 | |
| " Interstitialia | ... | 1 | ... | 1 | ... | |
| Abscess Kidney | ... | 1 | 1 | 1 | ... | |
| Cystitis | ... | 7 | ... | 7 | ... | |
| Calculus | ... | 3 | ... | 3 | ... | |
| Retention Urine | ... | 1 | ... | 1 | ... | |
| Diabetes | ... | 1 | ... | 1 | ... | |
| Hæmaturia | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE GENERATIVE SYSTEM. | | | | | | |
| Urethritis | ... | 3 | ... | 3 | ... | |
| Stricture Urethra | ... | 5 | ... | 5 | ... | |
| Phimosis | ... | 3 | ... | 3 | ... | |
| Paraphimosis | ... | 3 | ... | 3 | ... | |
| Balanitis | 1 | ... | ... | 1 | ... | |
| <i>Carried forward ...</i> | 186 | 3,517 | 413 | 3,703 | 171 | |

Return of Diseases and Deaths in 1915 at the Malacca Hospitals.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|---|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 186 | 3,517 | 413 | 3,703 | 171 | |
| DISEASES OF THE GENERATIVE SYSTEM. | | | | | | |
| <i>—Continued.</i> | | | | | | |
| Ulcer Penis ... | ... | 3 | ... | 3 | ... | |
| Chancroid ... | ... | 22 | ... | 22 | 1 | |
| Abscess Scrotum ... | ... | 4 | ... | 4 | ... | |
| Ulcer " ... | ... | 2 | ... | 2 | ... | |
| Eczema " ... | ... | 1 | ... | 1 | ... | |
| Sloughing " ... | ... | 1 | ... | 1 | ... | |
| Hydrocele ... | ... | 7 | ... | 7 | ... | |
| Orchitis ... | ... | 12 | ... | 12 | ... | |
| Epididymitis ... | ... | 1 | ... | 1 | ... | |
| Hernia Testis ... | ... | 1 | ... | 1 | ... | |
| Abscess Vulva ... | ... | 2 | ... | 2 | ... | |
| Chancroid ... | 1 | 4 | ... | 5 | ... | |
| Dysmenorrhœa ... | ... | 1 | ... | 1 | ... | |
| Menorrhagia ... | ... | 1 | ... | 1 | ... | |
| Leucorrhœa ... | ... | 1 | ... | 1 | ... | |
| AFFECTIONS CONNECTED WITH PREGNANCY. | | | | | | |
| Parturition ... | ... | 8 | ... | 8 | ... | |
| AFFECTIONS CONNECTED WITH PARTURITION. | | | | | | |
| Premature Birth ... | ... | 1 | 1 | 1 | ... | |
| AFFECTIONS CONSEQUENT ON PARTURITION. | | | | | | |
| Puerperal Septicæmia ... | 1 | 1 | 2 | 2 | ... | |
| DISEASES OF THE MAMMARY GLAND. | | | | | | |
| Mastitis ... | ... | 1 | ... | 1 | ... | |
| Abscess Submammary ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE ORGANS OF LOCOMOTIVE SYSTEM. | | | | | | |
| Necrosis ... | 1 | 3 | ... | 4 | ... | |
| Arthritis ... | ... | 2 | ... | 2 | ... | |
| Synovitis ... | ... | 8 | ... | 8 | ... | |
| Caries Spine ... | ... | 3 | ... | 3 | ... | |
| Kyphosis Spine ... | ... | 1 | ... | 1 | ... | |
| Myalgia ... | ... | 25 | ... | 25 | ... | |
| Lumbago ... | ... | 8 | ... | 8 | ... | |
| Bursitis ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE CONNECTIVE TISSUE. | | | | | | |
| Cellulitis ... | 1 | 28 | 6 | 29 | 1 | |
| Abscess ... | 4 | 84 | 1 | 88 | 6 | |
| Elephantiasis ... | ... | 1 | ... | 1 | ... | |
| <i>Carried forward ...</i> | 194 | 3,756 | 423 | 3,950 | 179 | |

Return of Diseases and Deaths in 1915 at the Malacca Hospitals.—Concluded.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|------------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 194 | 3,756 | 423 | 3,950 | 179 | |
| DISEASES OF THE SKIN. | | | | | | |
| Ulcers ... | 46 | 575 | ... | 621 | 57 | |
| Erythema ... | ... | 1 | ... | 1 | ... | |
| Eczema ... | ... | 33 | ... | 33 | 1 | |
| Boils ... | ... | 5 | ... | 5 | ... | |
| Carbuncles ... | ... | 3 | ... | 3 | ... | |
| Herpes Zoster ... | ... | 3 | ... | 3 | ... | |
| Warts ... | ... | 2 | ... | 2 | ... | |
| Corns ... | ... | 1 | ... | 1 | ... | |
| PARASITES. | | | | | | |
| Ascaris Lumbricoides ... | 1 | 5 | ... | 6 | ... | |
| Ankylostomiasis ... | 9 | 121 | 25 | 130 | 15 | |
| Ringworm ... | ... | 21 | ... | 21 | ... | |
| Scabies ... | 2 | 102 | ... | 104 | 4 | |
| Thrush ... | ... | 1 | ... | 1 | ... | |
| Tinea ... | ... | 6 | ... | 6 | ... | |
| " Umbricata ... | ... | 2 | ... | 2 | ... | |
| " Versicolor ... | ... | 1 | ... | 1 | ... | |
| INJURIES. | | | | | | |
| Sprain ... | ... | 4 | ... | 4 | ... | |
| Blackeye ... | ... | 1 | ... | 1 | ... | |
| Contusions ... | ... | 24 | ... | 24 | ... | |
| Abrasions ... | ... | 19 | ... | 19 | ... | |
| Bruises ... | ... | 8 | ... | 8 | ... | |
| Scald ... | ... | 4 | 2 | 4 | ... | |
| Burn ... | 3 | 16 | ... | 19 | ... | |
| Wounds ... | 2 | 165 | 2 | 167 | 12 | |
| Multiple Injuries ... | 1 | 11 | ... | 12 | 1 | |
| Fract. Skull Depressed ... | ... | 2 | ... | 2 | ... | |
| Concussion Brain ... | ... | 1 | ... | 1 | ... | |
| Dislocation Tooth ... | ... | 1 | ... | 1 | ... | |
| " Shoulder ... | ... | 1 | ... | 1 | ... | |
| Fracture Ribs ... | ... | 1 | ... | 1 | ... | |
| Hæmorrhage from Laceration of Lung ... | ... | 1 | 1 | ... | ... | |
| Frac. Dislocation Spine ... | ... | 2 | ... | 2 | 1 | |
| " Humerus ... | ... | 1 | ... | 1 | ... | |
| " Arm ... | ... | 2 | ... | 2 | ... | |
| " Finger ... | ... | 1 | ... | 1 | ... | |
| " Femur ... | 1 | 2 | ... | 3 | ... | |
| " Tibia and Fibula Compound ... | ... | ... | ... | 1 | ... | |
| " Toe ... | ... | 1 | ... | 1 | ... | |
| Crushed Hand ... | ... | 1 | ... | 1 | ... | |
| " Finger ... | ... | 1 | ... | 1 | ... | |
| " Foot ... | ... | 1 | ... | 1 | 1 | |
| Circumcision ... | ... | 1 | ... | 1 | ... | |
| Monkey-bite ... | ... | 1 | ... | 1 | ... | |
| Dog-bite ... | ... | 1 | ... | 1 | ... | |
| OBSERVATION ... | 5 | 113 | ... | 118 | 3 | |
| NO APPRECIABLE DISEASE ... | ... | 2 | ... | 2 | ... | |
| TOTAL ... | 265 | 5,027 | 453 | 5,292 | 274 | |

LABUAN.

Return of the Statistics of Population for the Year 1915.

| | Europeans. | Eurasians. | Malays. | Chinese. | Indians. | Other Nationalities. | TOTAL. |
|------------------------------------|------------|------------|---------|----------|----------|----------------------|--------|
| Number of inhabitants in 1915 ... | 38 | 33 | 4,611 | 1,833 | 186 | 67 | 6,768 |
| .. Births during the year 1915 ... | ... | 5 | 109 | 43 | 6 | 1 | 164 |
| .. Deaths .. " 1915 | 1 | 2 | 101 | 33 | 4 | 1 | 142 |
| .. Immigrants .. " 1915 | ... | ... | ... | ... | ... | ... | ... |
| .. Emigrants .. " 1915 | ... | ... | ... | ... | ... | ... | ... |
| Number of inhabitants in 1914 ... | 39 | 30 | 4,603 | 1,823 | 184 | 67 | 6,746 |
| Increase | ... | 3 | 8 | 10 | 2 | ... | 22 |
| or Decrease | 1 | ... | ... | ... | ... | ... | .. |

Meteorological Return for the Year 1915.

| | TEMPERATURE. | | | | | | RAINFALL. | | WINDS. | | REMARKS. |
|------------------|----------------|-------------------|----------------|----------------|--------|-------|-------------------|---------------------|--------------------|----------------|----------|
| | Solar Maximum. | Minimum on Grass. | Shade Maximum. | Shade Minimum. | Range. | Mean. | Amount in Inches. | Degree of Humidity. | General Direction. | Average Force. | |
| | | °F | °F | °F | °F | °F | Ins. | % | | | |
| January | No instrument. | 74.3 | 87.8 | 76.6 | 11.2 | 82.2 | 2.49 | 79 | N.E. | No instrument. | |
| February | | 74.1 | 88.2 | 76.1 | 12.1 | 82.1 | ... | 81 | N.E. | | |
| March | | 74.7 | 90.4 | 77.4 | 13.0 | 83.9 | .83 | 81 | N.E. | | |
| April | | 73.6 | 91.1 | 78.7 | 12.4 | 84.9 | 11.08 | 80 | S.W. | | |
| May | | 73.0 | 89.4 | 77.8 | 11.6 | 83.6 | 11.54 | 81 | S.W. | | |
| June | | 72.6 | 89.1 | 77.2 | 11.9 | 83.1 | 17.96 | 83 | S.W. | | |
| July | | 73.7 | 88.2 | 76.6 | 11.6 | 82.4 | 12.34 | 83 | S.W. | | |
| August | | 73.6 | 88.6 | 77.2 | 11.4 | 82.9 | 15.04 | 81 | S.W. | | |
| September | | 72.5 | 87.3 | 76.1 | 11.2 | 81.7 | 15.60 | 81 | S.W. | | |
| October | | 72.6 | 86.6 | 76.5 | 10.1 | 81.5 | 9.96 | 80 | S.W. | | |
| November | | 72.5 | 86.9 | 75.9 | 11.0 | 81.4 | 20.53 | 80 | S.W. | | |
| December | | 73.2 | 85.6 | 75.7 | 9.9 | 80.6 | 23.90 | 82 | S.W. | | |
| Means | ... | 73.3 | 88.2 | 76.8 | 11.4 | 82.5 | 14.27 | 81 | ... | ... | |

LABUAN.

Return of Diseases and Deaths in 1915 at the Labuan Hospital.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| INFECTIVE DISEASES. | | | | | | |
| Beri-beri ... | ... | 9 | 1 | 9 | ... | |
| Chicken-pox ... | ... | 6 | ... | 6 | ... | |
| Dysentery ... | ... | 6 | 1 | 6 | ... | |
| Gonorrhoea ... | 1 | 3 | ... | 4 | ... | |
| Gonorrhoeal Epididymitis ... | ... | 2 | ... | 2 | ... | |
| " Conjunctivitis .. | ... | 2 | ... | 2 | ... | |
| Malaria, Benign Tertian ... | ... | 25 | ... | 25 | ... | |
| " Sub-tertian ... | ... | 5 | 1 | 5 | 1 | |
| " Cachexia ... | ... | 9 | 1 | 9 | 1 | |
| " Neuritis ... | ... | 4 | ... | 4 | ... | |
| Syphilis, Primary ... | ... | 4 | ... | 4 | ... | |
| " Secondary ... | 1 | 6 | ... | 7 | 1 | |
| " Tertiary ... | ... | 3 | 1 | 3 | ... | |
| " Gummata ... | ... | 3 | ... | 3 | ... | |
| Typhoid Fever ... | ... | 1 | 1 | 1 | ... | |
| Pyrexia ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE NERVOUS SYSTEM. | | | | | | |
| Sciatica ... | ... | 2 | ... | 2 | ... | |
| Neuritis ... | ... | 1 | ... | 1 | ... | |
| MENTAL DISORDERS. | | | | | | |
| Imbecile ... | ... | 2 | ... | 2 | 1 | |
| GENERAL DISEASES NOT INCLUDED IN THE PREVIOUS GROUP. | | | | | | |
| General Debility ... | ... | 2 | ... | 2 | ... | |
| Anæmia ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE EYE. | | | | | | |
| Granular Conjunctivitis ... | ... | 1 | ... | 1 | ... | |
| Pterygium ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE CONNECTIVE TISSUE. | | | | | | |
| Abscess ... | ... | 4 | 1 | 4 | 1 | |
| DISEASES OF THE RESPIRATORY SYSTEM. | | | | | | |
| Pleurisy ... | ... | 1 | ... | 1 | ... | |
| Pulmonary Tuberculosis ... | ... | 4 | 2 | 4 | 2 | |
| Asthma ... | ... | 1 | ... | 1 | ... | |
| Asthmatic Bronchitis ... | ... | 1 | ... | 1 | ... | |
| Carcinoma of Larynx ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE DIGESTIVE SYSTEM. | | | | | | |
| Carcinoma of Sigmoid ... | ... | 1 | 1 | 1 | ... | |
| Colic ... | ... | 3 | ... | 3 | ... | |
| Diarrhoea ... | ... | 5 | 2 | 5 | ... | |
| <i>Carried forward ...</i> | 2 | 120 | 12 | 122 | 7 | |

Return of Diseases and Deaths in 1915 at the Labuan Hospital.—Continued.

| DISEASES. | Remain- ing in Hospital at end of 1914. | YEARLY TOTAL. | | Total Cases Treated. | Remain- ing in Hospital at end of 1915. | REMARKS. |
|--|---|------------------|---------|----------------------------|---|----------|
| | | Admis- sions. | Deaths. | | | |
| <i>Brought forward ...</i> | 2 | 120 | 12 | 122 | 7 | |
| DISEASES OF THE DIGESTIVE SYSTEM.— <i>Continued.</i> | | | | | | |
| Hæmorrhoids ... | ... | 2 | ... | 2 | ... | |
| Enteritis ... | ... | 1 | ... | 1 | ... | |
| Hepatitis ... | ... | 1 | ... | 1 | ... | |
| Indigestion ... | ... | 2 | ... | 2 | ... | |
| Stomatitis ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE LYMPHATIC SYSTEM. | | | | | | |
| Lymphangitis ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE URINARY SYSTEM. | | | | | | |
| Nephritis ... | ... | 4 | 1 | 4 | ... | |
| DISEASES OF THE GENERATIVE SYSTEM. | | | | | | |
| Stricture Urethra ... | ... | 1 | ... | 1 | ... | |
| Chancre ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE LOCOMOTIVE SYSTEM. | | | | | | |
| Arthritis ... | ... | 3 | ... | 3 | ... | |
| Tubercular Caries ... | ... | 1 | ... | 1 | ... | |
| Acute Rheumatism ... | ... | 1 | ... | 1 | ... | |
| DISEASES OF THE SKIN. | | | | | | |
| Ulcers ... | ... | 11 | ... | 11 | ... | |
| Scabies ... | ... | 1 | ... | 1 | ... | |
| INJURIES ... | 4 | 42 | ... | 46 | 1 | |
| OPERATION FOR CYSTS. | ... | 2 | ... | 2 | ... | |
| MALINGERING ... | ... | 1 | ... | 1 | ... | |
| FOR OBSERVATION ... | ... | 5 | ... | 5 | ... | |
| NO DISEASE DISCOVERABLE ... | ... | 3 | ... | 3 | ... | |
| Total ... | 6 | 204 | 13 | 210 | 8 | |

List of Operations done at the Civil Hospital, Labuan, during the year 1915.

| DISEASES. | YEARLY TOTAL. | | Total Cases Treated. | REMARKS. |
|-----------------------------------|---------------|---------|----------------------|----------|
| | Admissions. | Deaths. | | |
| OPERATIONS. | | | | |
| ON EYE. | | | | |
| Removal of Pterygium | 1 | ... | 1 | |
| ON RECTUM. | | | | |
| Excision Hæmorrhoids | 1 | ... | 1 | |
| ON GLANDS. | | | | |
| Incision Parotid Abscess | 1 | 1 | 1 | |
| ON CONNECTIVE TISSUE. | | | | |
| Incision Abscess | 3 | ... | 3 | |
| ON SKIN. | | | | |
| Excision Sebaceous Cysts | 1 | ... | 1 | |
| ON BONES. | | | | |
| Removal of Necrosed Bones | 2 | ... | 2 | |
| Scraping Tubercular Caries | 1 | ... | 1 | |
| ON EXTREMITIS. | | | | |
| Amputation Finger | 1 | ... | 1 | |
| Removing Foreign Bodies | 3 | ... | 3 | |
| Incision Septic Finger | 1 | ... | 1 | |
| Suturing Tendon | 1 | ... | 1 | |
| Total ... | 16 | 1 | 16 | |

