FALKLAND ISLANDS.

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# ANNUAL

# MEDICAL AND SANITARY REPORT

FOR THE

YEAR ENDED 31ST DECEMBER, 1939.

*Published by Command of His Excellency the Governor.*

PORT STANLEY.

PRINTED BY THE GOVERNMENT PRINTER, FALKLAND ISLANDS.

1940.

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Senior Medical Officer's Office,
King Edward VII Memorial Hospital,
Stanley, Falkland Islands.
7th March, 1940.

Sir,

I have the honour to submit for the information of His Excellency the Governor and for transmission to the Right Honourable the Secretary of State for the Colonies, the Medical Report on the Health and Sanitary conditions of the Colony of the Falkland Islands for the year 1939, together with returns, etc., appended thereto.

I am,
Sir,
Your obedient servant,
Geo. Kinneard,
*Senior Medical Officer.*

The Honourable,
The Colonial Secretary,
Stanley.

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# ANNUAL MEDICAL AND SANITARY REPORT

FOR THE

YEAR ENDED 31st DECEMBER, 1939.

## I. ADMINISTRATION.

### (A) Staff.

| | |
|---|---|
| *Senior Medical Officer.* | George Kinneard, M.D. (Man.) C.P.H. (John Hopkins); Cert. London Sch. Hyg. & Trop. Med. |
| *Two Medical Officers.* | David Kellock Cowan, L.R.C.P. & S. (Edin.) L.D.S. (Edin.)<br>Eric Fergus John Dunlop, M.B., Ch.B., Dip. in T.B. |
| *Nurse Matron.* | G. E. Reive, R.N., C.M.B. |
| *Nursing Sister.* | Mary Frances Gowans, R.N., C.M.B. |
| *Staff Nurse.* | Mary S. J. Miller. |
| *Two Probationers.* | Doreen H. McAtasney.<br>Dorothy M. Aldridge. |
| *Clerk to the Senior Medical Officer.* | B. N. Biggs. |

Five other employees include a Caretaker and maids.

DENTAL STAFF.

| | |
|---|---|
| *Colonial Dentist.* | W. H. R. Still, L.D.S., R.C.S., (Eng.) |
| *Dental Mechanic.* | J. Turner. |
| *Dental Apprentice.* | R. Lellman. |

STAFF CHANGES.

Miss Reive went on leave April 24th, 1939, and has subsequently been transferred to Nigeria.

Miss M. F. Gowans arrived to take up the post of Nursing Sister on March the 22nd, 1939. She has acted as Matron since the departure of Miss Reive.

Dr. E. F. J. Dunlop arrived to take up his duties on January 19th, 1939.

The Senior Medical Officer was on leave from June 4th to September 27th, 1939.

Mr. R. Lellman, Dental Apprentice, proceeded to the United Kingdom on study leave on the 8th August, 1939.

## (B) Statistical Returns.

### (1) Financial.

Total Government Revenue during 1939 ... ... ... £54,588 : 11 : 3.

Total Expenditure on Medical and Sanitary services during the year 1939 –

| | | |
|---|---|---|
| (a) Personal Emoluments ... ... | £ 3,888: | 4 : 6. |
| (b) Other Charges ... ... ... | £ 2,400 : | 13 : 3. |
| | £ 6,288 : | 17 : 9. |

Percentage that this bears to total revenue - 11.5

Comparative statement of Revenue received :

| | 1938. | 1939. |
|---|---|---|
| | £ s. d. | £ s. d. |
| Medical subscriptions ... ... | 759 : 17 : 9. | 748 : 15 : 7. |
| Medical Fees ... ... ... | 687 : 2 : 6. | 565 : 17 : 0. |
| Dental Fees ... ... ... | 756 : 13 : 0. | 681 : 3 : 3. |
| Totals | £2,203 : 13 : 3. | £1,995 : 15 : 10. |

Unpaid accounts for the year 1939 including previous years, on December 31st, amounted to ... ... ... £160 : 6 : 7.

### (2) Indices of Vitality & Health.

Population – 2,435 (2,378 in 1938). Last census 1931 – 2,392.

Percentage distribution last census – Urban 51% Rural 49%.

Distribution of the population 1931–1921

| Age. | 1931 | – | 1921 |
|---|---|---|---|
| 0–1 | 63 | | 67 |
| 1–4 | 210 | | 194 |
| 5–9 | 212 | | 238 |
| 10–14 | 228 | | 213 |
| 15–19 | 228 | | 230 |
| 20–29 | 498 | | 390 |
| 30–39 | 280 | | 294 |
| 40–49 | 243 | | 239 |
| 50–59 | 296 | | 138 |
| 60–69 | 104 | | 56 |
| 70–79 | 26 | | 31 |
| 80– | 4 | | 4 |
| | 2,392 | | 2,094 |

Between 1921 and 1931 the population increased by only 298 and of these 205 came from the age groups 40 onwards.

Birth rate per 1,000 – 19.3 (17.24 in 1938).

Fertility rate *i.e.* live births per 1,000 women 15 years to 49 years – 83.6 approximately.

Death rate per 1,000 – 7.01 (8,71 in 1938).

Maternal Mortality – Nil. Infant Mortality – Nil.

The resident population in the Dependencies was estimated to be 750.

### (C) Legislation.

During the year an Ordinance to regulate the slaughtering of stock and to provide for the inspection of slaughterhouses was passed by the Legislative Council on December the 9th. The original idea had been to remove the control of meat from the Board of Health but this was given up when the Ordinance was finally passed and licenses to operators of slaughterhouses will be issued in the name of the Board of Health. The bill gives the Governor in Council power to make Regulations and these must be framed before the Ordinance can really be put into force.

The Board of Health Regulations and the Medical Department Fees Regulations underwent minor amendments but no important changes were made.

### (D) Port Health Administration.

Very few ships relatively, from foreign ports enter the Colony. Thus during 1939 the number of vessels entered at Port Stanley was as follows :

| | |
|---|---|
| From United Kingdom | 1. |
| ,, Colonial Ports | 8. |
| ,, Foreign Ports | 17. |
| Total ... | 26. |

The desirability of excluding communicable disease is fully realized and arrangements have been made with His Majesty's British Consul at Rio de Janeiro, Montevideo, Bahia Blanca, Magallanes and Valparaiso to send wireless messages in the event of any scheduled infectious disease breaking out at these points. In addition regular written reports covering the incidence of communicable disease in Montevideo, the principal point of contact are received.

The population has not been immunised against diphtheria and while this disease is prevalent in Uruguay ships' masters are asked to make specially certain that no persons with sore throats are on board their ships before signing the Declaration of Health. Nonetheless it is recognised that the practice of boarding a ship by a Medical Officer upon arrival for the purpose of granting pratique, is no guarantee against the introduction of communicable diseases in a subclinical form or in the stage of incubation.

The outbreak of war upset the routine of granting pratique since due to the importance of secrecy no knowledge of ships' movements was released and His Majesty's ships are not subject to the usual regulations.

## II. PUBLIC HEALTH.

General.

This report seeks to present a picture of the status of public health in the Falkland Islands during 1939, how the activities of the Medical Department affected that status and how the Medical Department's activities are linked up with the broader aspects of community welfare. In evaluating various public health procedures it is important to consider what sort of organised effort is needed in a particular area to achieve the maximum state of well being. Just because a certain type of activity is usual and traditional elsewhere is no reason for its employment here.

In a community where the acute infectious diseases do not occur, where there is no venereal disease; no food deficiency diseases, no blood parasites, no infant or maternal mortality, what is there for a good health department to do? There remain 4 problems at least. These may be enumerated as

(a) The control of Tuberculosis.
(b) The control of the degenerative diseases of middle and later life.
(c) The promotion of the minimum diet for the optimum health.
(d) The promotion of a better human stock.

Ideas as to what should and might be done are reasonably well formulated in regard to

The resident population in the Dependencies was estimated to be 750.

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(b) The control of the degenerative diseases of middle and later life.
(c) The promotion of the minimum diet for the optimum health.
(d) The promotion of a better human stock.

Ideas as to what should and might be done are reasonably well formulated in regard to

tuberculosis and nutrition but in regard to the degenerative diseases and the elimination of undesirable unstable people from a community, modern medicine makes a less impressive showing. Still more important other activities which are necessary in the organised effort to produce the maximum state of well being make very little showing at all.

For example, one reads about the modern central nervous system as being "chained to the wheel of progress". Life is lived so much faster, pressure is so much greater, competition is so much keener etc., that people break down. Here in the Falklands life is placid. Certainly no one is chained to the wheel of progress, competition and the fear of unemployment non-existent, "the dilating eye takes in the encircling vastness". But, as Dr. Dunlop's investigation into the neuroses given later in this report shows, the people here break down just as they do in the United Kingdom. The fact is, that the worthwhile, stable individual doesn't break down under stress and the worthless unstable types may do. Here in the Falklands we have yet to make a beginning in the organized effort which is necessary to produce a stable race of people. Coupled with that the educational status of the population leaves much to be desired.

In all this we are not so far behind other places but the point one wishes to emphasize is that many public health procedures have little value if other aspects of our organized effort for public well being are forgotten. What point is there in keeping the infant mortality rate down to zero if the infants come from bad stock? In fact could anything be more pointless. And what point is there in health education if the people concerned lack the basic education to understand the ideas presented.

In the Falklands one may not construct a chicken coop without the sanction of the Board of Health but a moron can marry an epileptic and Church and State will add their blessing to the union! To the writer this seems all wrong and does our intelligence little credit. Moreover it vitiates to a considerable degree many public health procedures.

There were few new developments in 1939. Apart from the routine clinical service the Medical Department was less active than normally because of the fact that I was absent on leave from June to September and subsequently the outbreak of war diverted our energies in other directions.

Broadly speaking, however, everything that was said in my report for 1938 can be said again this year. The public health of the Colony is normally good and our experience in the current year was I think rather better than usual. In the annual return for diseases and deaths for example there was, apart from tuberculosis not a single person belonging to the Colony, recorded as having been admitted in hospital for an infectious or parasitic disease. Epidemics or near epidemics of the influenzal cold are normally experienced during the winter months, but in 1939 we were singularly free from respiratory infection.

Cancer of the digestive tract was diagnosed in two cases and one breast cancer was seen as compared with 1938 when no cases were observed.

Under the heading of general diseases a good many cases of "rheumatism" are seen but only two definitely labelled rheumatic fever. On the other hand diabetes is commoner than might be expected and a good many people are known to have this disease in the Colony. The same is true of asthma.

The Colony has somewhat of a reputation for appendicitis but I think this is undeserved. Medical Officers and patients are prone to diagnose every vague recurrent abdominal pain as appendicitis with little pathology at operation. Of sixteen sent in only seven were really acute. Last year I saw five.

TUBERCULOSIS.

A special note must be recorded this year in regard to this disease. Previous reports have conveyed the impression that while tuberculosis was present in the Colony the incidence of cases was quite small. When dealing with a small population sampling errors are bound to be large and the experience of any one year fallacious. However, there has been in 1939 a big increase of cases reported. Heretofore the known cases were either bone tuberculosis or the chronic fibroid type. This year active pulmonary tuberculosis, tuberculous pleurisy, and glandular tuberculosis was seen. Seven cases were admitted to hospital for various periods as against four in 1938.

The Colony has no facilities for housing this type of case and known cases of open tuberculosis are refused admission to the King Edward VII Memorial Hospital. Provision in the Estimates 1940 to build an addition to the present hospital which would provide an isolation unit of about six beds was asked for but the war has prevented approval of this for the present.

During 1940 I want to skin test all the school children with a view to locating foci of infection in the various homes. The fears and conservatism of the people will make this a difficult task. Tuberculosis is regarded in much the same way as leprosy.

## III. NUTRITION.

The Medical Department has continued to emphasize the importance of diet in relation to health and an endeavour has been made to apply the information secured from the Dietary Survey of 1938.

In furthering the work in nutrition three specific modes of attack are used :

(a) Patients who show well marked malnutrition whether this be overweight or underweight are placed in hospital and taught how to live more hygienic lives. It has often been possible to secure quite striking results and these people on returning to their own domestic circle afford convincing evidence to relations and neighbours which no amount of teaching and preaching could effect.

(b) Annually at the Government School all pupils who appear below the normal range of weight are placed in a special group which receives daily, a pint of milk and a vitamin A & D concentrate free. Apart from the good it does the individual, this milk-in-school scheme keeps the importance of milk in the diet constantly before the mind of children and parents. The value, safety, convenience and comparative cheapness of evaporated whole milk is now pretty well accepted. There has been a marked increase in the quantity imported. Raw milk is available from two small dairies and the survey showed that about one in four still buys some raw milk.

(c) *Family Assistance Scheme* – Where the number in a family is in excess of three and where there is no evidence that the family income is being squandered on alcohol and sweepstake tickets a daily allowance of protective foods is given. In practice this means one orange, one egg and a pint of milk per day to each child in excess of three. The scheme works smoothly enough but only a dozen families which could be approved applied for this help. Eggs and fruit are imported from South America.

Theoretically of course it would be desirable to purchase eggs locally but there is little money in selling eggs at 2/- per dozen and excellent eggs can be imported for 1/- to 1/4 per dozen. If transport were more reliable eggs from the sheep stations could be sent in and in emergencies have been so sent. Generally speaking it must be realised that nutrition here is a qualitative problem. It has no relation whatever to the conditions and problems which exist in other colonies. Here we are aiming at the minimum diet for the optimum health. Many people are getting it or can do so if they want to. I know of no population generally so well off.

## IV. HEALTH EDUCATION.

To my mind one of the great weaknesses of colonial administration has been the reluctance to concede the native's right to a sound basic education. Much of the superstructure falls to the ground if the foundation is insecure. Dr. Cowan, Medical Officer in the West Falkland gives a good idea of the difficulties of health education in one of his reports :–

"I regret to have to report that it is obvious that the dietary habits of the men remain as they were twenty years ago. I have not been able to influence them at all. Whilst my own inability is probably reponsible for a proportion of the apathy exhibited, I am convinced that the lack of education of these people must bear some of the blame. One settlement has flatly refused to hear me and it is interesting that at least 25% of these people can neither read nor write.

I am doing all I can to drop seeds where there is the slightest chance of fruitful issue. I see every child on every settlement I visit and offer advice to parents concerning their correct diet.

It is my opinion that collective talks are valueless because no matter how simple the language employed, no matter how long one spends on explanations, the perpetual complaint afterwards is that they could not understand "what he was talking about". Circular letters from Stanley have had the same reception.

Education in nutrition, like any other form of education, should be started before the mind of the individual becomes fogged and fixed with the ideas of grand parents and great grand parents. It is my humble opinion that the best, if not the only way, to derive permanent benefit is that nutrition should be taught in the schools to the children".

In this regard two promising developments occurred during the year :

(a) The Government School has been re-organized and young qualified teachers brought out.

(b) Definite consideration was given to the establishment of an agricultural boarding school in the West Falkland. Nothing has happened yet but the thinking has been done.

## V. MATERNITY AND CHILD WELFARE.

Ante-Natal and Infant Welfare Clinics continued to function successfully throughout the year. Practically all maternity cases are admitted to hospital. Normal cases are looked after by the Hospital Matron who of course holds the C.M.B. and an "all-in" charge of £2 is made for maintenance and nursing care. The Senior Medical Officer keeps in close touch with all the cases. Confinement in private houses is discouraged and women in the camp are urged to come to hospital for confinement. The law forbids attendance at childbirth by unqualified people if qualified doctors or nurses are available.

Attendances at the Infant Welfare Clinic increased from an aggregate of 443 in 1938 to 555 in 1939.

There were no maternal deaths, no still births and no infants under one year died.

## VI. ORAL HYGIENE.

The Infant Welfare Clinic works in close cooperation with the Dentist. Every child at age $2\frac{1}{2}$ years is urged to visit and get acquainted with the Dentist before any work is required.

All patients are reminded by post-card when a further visit to the dentist is required.

After three years observation the dental officer is convinced there is nothing wrong with the quality of the Falkland Islander's teeth but in the past dental health education has not been pushed and the population has been allowed to seek help only when they saw fit.

I am still striving to get the Dentist to set up a table of average caries at ages to serve as a basis for comparison with other places and other years. This offers statistical difficulties as to the best method to use.

The dental officer is also making observations on the incidence of a haemorrhagic diathesis which is alleged to exist. A summary of his findings appear under the heading "investigations". Broadly speaking we have not seen any evidence of an undue tendency to bleed.

## VII. SCHOOL MEDICAL SERVICE.

Section 13 of the Education Ordinance No. 8 of 1909 requires the Government Medical Officer to make an examination of the school children at least once annually. Accordingly an examination was carried out as in previous years. Altogether two hundred and fifty-two students were examined as against two hundred and thirty in 1938.

The students were examined in the presence of the parents and any points that came up were discussed on the spot.

Vaccination had not been effected in 10.7%. Vaccination is compulsory but in practice no attempt was made to enforce the Act. There are a few conscientious objectors but for the most part the unvaccinated pupils have been missed in routine work. Smallpox while common in South America, has never been reported here so far as the writer is aware.

Dental caries to some extent was noted in 24.2% (31.7% in 1938) reflecting the work of the dentist.

Some abnormality was seen in the nose or throat in 4%; if we include cervical adenitis 14.7%. The examination was carried out by a new medical officer and part of the sharp drop from 46% is doubtless due to different standards. Regarding the etiology of cervical adenitis he made the following notes :

(1) Frequently associated with carious teeth, but association quite inconstant. This association would appear much more constant, however, than that with simple enlargement of the tonsils.

(2) May persist after removal of carious teeth. Do not appear to persist after removal of tonsils that were definitely unhealthy.

(3) Occur without reference to carious teeth or unhealthy tonsils, and sometimes disappear of themselves.

(4) Glands were not met with presenting the clinical features of tuberculous glands.

(5) Their incidence is out of proportion to disease of nose and throat (4%), but is closer to dental caries (24%).

*Conclusion.*

Having regard to the foregoing facts, cervical adenitis is probably due to lack of oral hygiene mainly.

## VIII. MEDICAL SERVICE OUTSIDE STANLEY.

Medical Service outside Stanley is provided on the public health side, for the whole Colony by Government but as regards medical care the Falkland Islands Company maintains a resident doctor at Darwin who attends to the people in the Falkland Islands Company's camp and two other stations. Patients however requiring hospitalization are received at the King Edward VII Memorial Hospital regardless of where they reside and these are, of course, attended on admission by the Government doctors.

One doctor is constantly maintained on the West Falkland and one doctor resides in Stanley to assist the Senior Medical Officer and attend non-Company Stations in the camp. In addition to answering special calls these officers tour all the camp stations twice a year.

The entire rural portion of the Colony apart from that served by the Falkland Islands Company doctor comes under a system whereby each station pays a flat rate (£25-£20-£15 according to the number of sheep per annum, plus £2 for a married man and £1 for a single employee) to cover the cost of medical care. For this the Medical Department supplies all services free except a hospital maintenance charge of £1. 1s. per week. In addition where a medical officer certifies an urgent case requires hospitalization, Government contributes half the cost of transport up to £25.

This plan gives good satisfaction and the Company's area seeing the benefits are beginning to consider how the Government's plan may be applied to them.

As regards housing and rural sanitation, the landowner or manager is comfortably, not infrequently luxuriously, housed. The married shepherd enjoys a snug home, often with somewhat small rooms and in somewhat isolated locations. Compared with agricultural workers in many other places however he is economically very well off and is often able to retire to Stanley with a modest competence in his old age.

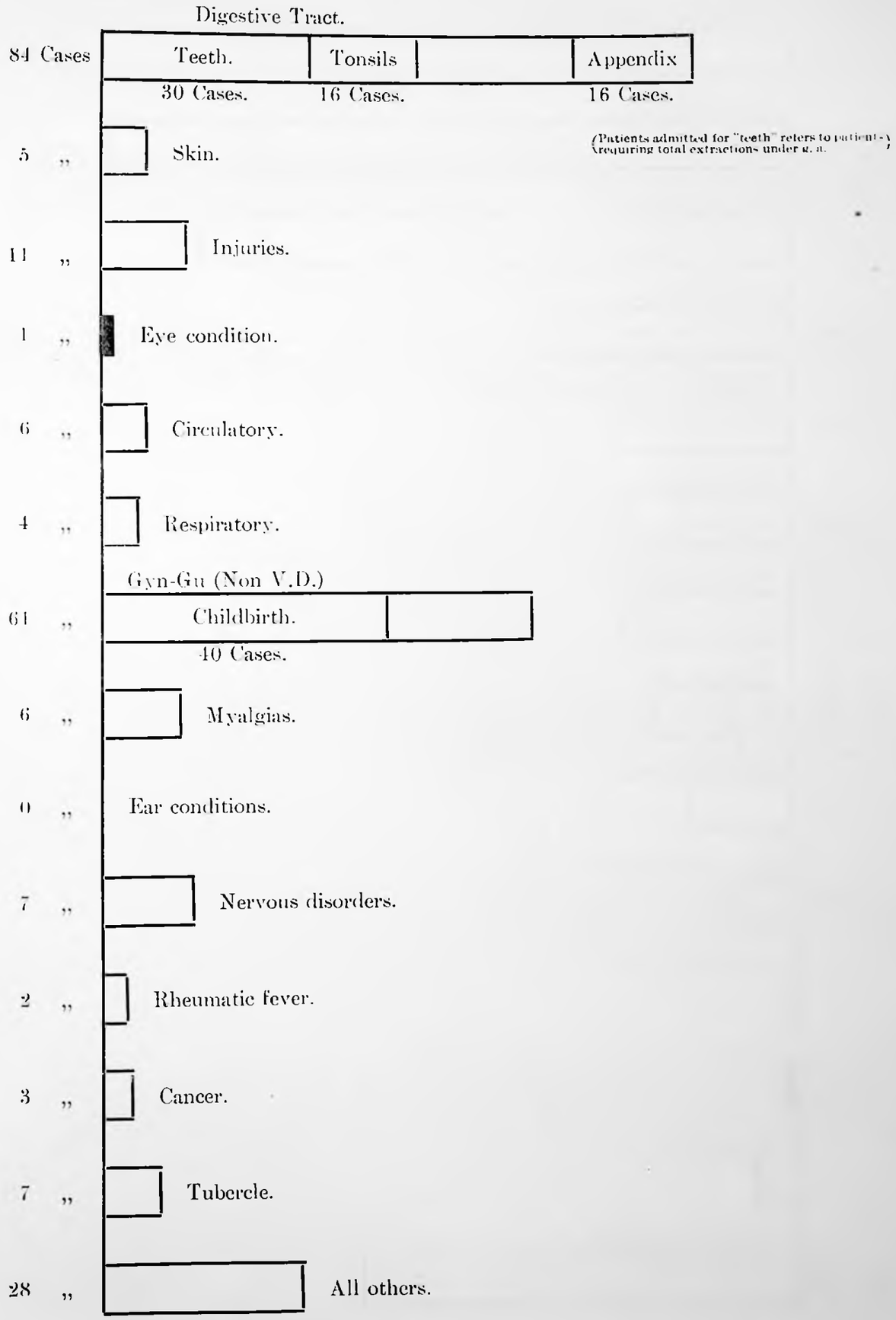
The single man on the farm is less well situated. He lives in a cook-house which often leaves much to be desired from the standpoint of hygiene and which is presided over by a male cook who sometimes has taken up his work not through any knowledge or competency in cookery but rather because he has become too old, or otherwise unsuitable for the general work of the station.

In contrast to this some places where there is an alert manager the cook is a better type, latrines are clean and well kept; the meat-house is clean and fly-proof; the bedrooms show signs of care, and separate facilities exist for washing and bathing.

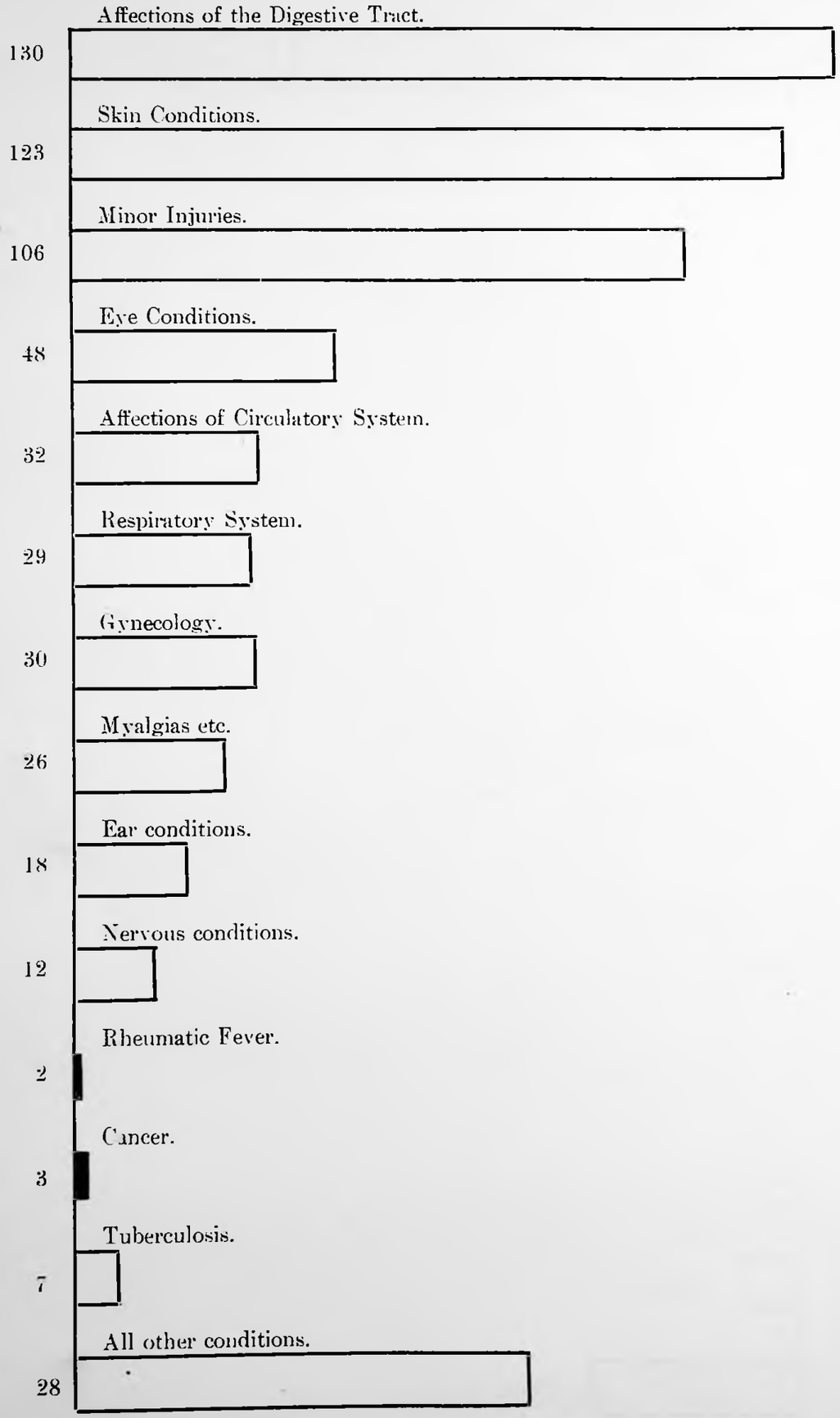
A few stations charge employees a flat rate for board but more usually the men enter into a private agreement to pay their share of whatever outlay the cook has made. A common rate is reported to be under one shilling a day. Under such conditions the fare served must be readily prepared and contain no fancy or expensive items. It would be easy as a rule for ample supplies of milk, butter, eggs and fresh vegetables to be made available to these men, practically free, but since these matters are left entirely to the men by the managers at these stations not infrequently all these important "protective" foods are not regularly enjoyed.

It is relatively easy to indicate certain changes which theoretically are desirable in camp conditions but their establishment is complicated by the spirit and customs of the people, and bound up in certain administrative problems relating to labour. One has therefore not put forward any schemes in connexion with rural hygiene until conditions appear more favourable.

## Classification of Morbidity in "In-Patients".



## Classification of Out-Patients to show type of Morbidity.




N.B.—Eye conditions include patients who came to have spectacles fitted.

## IX. KING EDWARD VII MEMORIAL HOSPITAL.

Under normal conditions this hospital provides seventeen beds or roughly seven beds per 1000 of population but this can be expanded in emergency to about thirty. Inadequate housing for the staff compels two wards to be used as quarters for the nurses.

The character of the service offered remained unchanged until December the 16th when patients were evacuated and the wounded off H.M.S. "Exeter", "Ajax", and "Achilles" were received.

Until that date the post of Nursing Sister remained un-filled. As in the past the greatest difficulty was experienced in securing and keeping competent maids while despite the favourable terms offered under the new Regulations no one in the Colony applied for the post of Nurse-Probationer.

The peace-time work of the hospital follows a fairly constant pattern from year to year. The following statistics are of some interest.

The average number in hospital was approximately 8. There were 35 major operations and 126 minor. Total admissions numbered 225 (224 in 1938) of these 159 were discharged cured; 46 were relieved, 13 were unchanged and 7 died in hospital.

Prescriptions issued to persons on the free list 975. Prescriptions issued to paying patients 789. 137 women were admitted as against 88 men.

No skiagrams were taken during the year because of breakdowns of the Xray plant.

The British Colony in Buenos Aires when news of the Battle of the Plate was known assembled large quantities of material with the idea of setting up an emergency hospital. A corps of doctors and nurses was recruited and the whole expedition was mobilised and proceeded as far as Montevideo. It was felt however, that local equipment and personnel could take care of the situation since in any case such help could not reach Stanley at the time when it was most wanted. A radiologist was however, asked for and Xray equipment together with two additional nurses, to be sent by the s.s. Lafonia.

When this vessel arrived it was found that Dr. Stuart Pennington of the British Hospital had been sent as radiologist and some twelve nurses together with all the equipment as at first planned. The surplus nurses were returned on the next boat but the hospital supplies were stored until such time as it was deemed there was no further need for them.

The following table indicates the volume and type of casualties received off the warships :—

## King Edward VII. Memorial Hospital, December, 1939.

NAVAL CASUALTIES.

| No. | Diagnosis. | Admitted. | Total Cases. | Deaths. | No. remaining at end of year. |
|---|---|---|---|---|---|
| 1 | Compound Comminuted Fracture of Tibia & Fibula with extensive burns. | 3 | 3 | 2 | 1 |
| 2 | Compound Comminuted Fracture of Tibia & Fibula. | 2 | 2 | | 2 |
| 3 | Amputation left forearm compound comminuted Fracture Right Elbow. | 1 | 1 | | 1 |
| 4 | Compound Comminuted Fracture of Femur. | 3 | 3 | | 3 |
| 5 | Compound Comminuted Fracture of Radius & Ulna. | 1 | 1 | | 1 |
| 6 | Compound Comminuted Fracture of Fibula. | 1 | 1 | | |
| 7 | Fracture of Cervical vertebrae. | 1 | 1 | | 1 |
| 8 | Compound Comminuted Fracture of heel. | 1 | 1 | | 1 |
| 9 | Compound Comminuted Fracture of Humerus. | 1 | 1 | | 1 |
| 10 | Concussion with other injuries. | 2 | 2 | | 1 |
| 11 | Burns of hands, face, neck & limbs. | 10 | 10 | | 3 |
| 12 | Lacerated wounds of buttock | 5 | 5 | | 4 |
| | ,, ,, ,, Breast. | 1 | 1 | | 1 |
| | ,, ,, ,, Leg. | 2 | 2 | | |
| | ,, ,, ,, Arm. | 1 | 1 | | |
| 13 | Multiple H.E. Wounds. | 22 | 22 | | 4 |
| | TOTALS ... | 57 | 57 | 2 | 24 |

In addition to in-patients there were 44 walking casualties. These attended at Out-patients an aggregate of 308 times.

Patients in many lighter cases were billeted out to private homes requiring 28 visits up to the end of the year.

## X. OUT PATIENT & DISTRICT CALLS.

While a great variety of conditions was seen in the Out-patient Department very few serious cases requiring admission were encountered. Over a third of the attendance were accounted for by minor skin infections, bruises, cuts and so forth. In the majority of cases one or two visits sufficed. The difference between this year's figures and last reflect the favourable experience during the year.

| First visit to the Out-patient Department. | Subsequent Attendances. |
|---|---|
| 648 (730) | 751 (1094) |
| 1399 (1824) | |

| First Districts Visits. | Subsequent Visits. |
|---|---|
| 117 (215) | 343 (580) |
| 460 (795) | |

1938 figures are given in brackets.

## XI. HYGIENE & SANITATION.

The control of water, sewerage and street cleaning in Stanley is exercised by the Public Works Department. That Department furnishes the following data :–

| | *1938.* | *1939.* |
|---|---|---|
| Water consumption per day | 16,500 | 20,000 gals. |
| Total number of houses in Stanley | 228 | 291 |
| Properties connected to water main | 190 | 206 |
| Water connections made | 22 | 16 |
| Reservoir storage | 355,142 | 355,142 gals. |
| Hydrants on water mains | 30 | 30 |
| Lavatories, flushing | 152 | 161 |
| Connections to main sewer | 221 | 225 |

### Housing.

The Board of Health acts as Building Authority and specifications covering the construction of new buildings is laid down in the Building Regulations.

There are very few dilapidated buildings in the Town of Stanley but while the Board of Health has authority to condemn a building for human habitation it does not possess authority to demolish unless a building is a public danger.

It was not found necessary to prosecute anyone during the year.

### Garbage.

The collection of garbage was let to a private contractor at the beginning of the year and the experience of the first year's operation under this scheme has been favourable.

Special pails were imported to set up a similar system for night-soil collection but the out-break of war has made it difficult to secure a contractor and this has been deferred.

The policy whereby the control of meat and milk was taken away from the Board of Health and lodged with the Agricultural Adviser was abandoned and the new Ordinance to control slaughtering vests the power of license again in the hands of the Board of Health.

### Water Supply.

Water is pumped to the Town from a spring some two miles away. Due to the method of control the water is stained by peat but it is felt that a system of supervision could be established whereby the clear unstained supply is conserved. Irregular pumping, the watering of ships and similar factors compel a somewhat scanty supply to be supplemented by drawing on other sources which are heavily stained.

The brown peat water passing through boilers forms a heavy precipitate which has to be periodically cleaned out thus causing expense and inconvenience which might be eliminated if only a clear water were used.

The town water supply is a soft water and as far as is known a perfectly safe one.

The usual rural or camp water supply comes from a spring. Quite a number of the farm residences have made a suitable reservoir and piped water to the buildings in the settlement.

## XII. INVESTIGATIONS.

For the reasons previously indicated there was little opportunity to carry out investigations during the year. One point however looked into was the out-put of Vitamin C in the urine.

In the past it has been suggested that a haemorrhagic diathesis existed in the Colony and this undue tendency to bleed was accounted for theoretically as possibly being due to a lack of Vitamin C.

Accordingly it was felt that if the urine of a random sample of the population was tested during winter and spring any inadequacy of Vitamin C in the diet should be revealed.

Sixty-five patients of both sexes and all ages were investigated. The method of selection was to test each new admission to hospital. The general impression secured from this investigation was that the diet in the winter and spring of the persons tested was adequate. The lower border of normality was taken as 10 mg for 24 hours out-put of urine. Low readings were common and really high readings, that is, up to 30 mg uncommon, which is again about what one might expect.

### The Haemorrhagic Diathesis.

Mr. Still, the dental officer made some observations on the incidence of abnormal bleeding among the patients who came for treatment. He reports in part :

"Before I came to the Colony three years ago, I was told that there were many haemophiliacs in the Islands, and that "bleeding" was common. This tendency has also been noted and agreed with in, I believe, one if not more Reports of medical officers in the Colony. Indeed the idea is so prevalent that it is almost a source of pride amongst certain of the Island families and they tell you very complacently that they "always bleed".

In view of these clinical findings, I felt that a review of all the patients under my care up to September 1939 would be of interest. The number of these is approximately 1500, of whom 1200 at least have been subject to extraction of one sort or another. If there is any haemophilia or evidence of delayed coagulation time it would be most likely to manifest itself in the minor operation of exodontia. In these 1200 patients I have noted any case exhibiting anything in the slightest way abnormal, and the total number of these cases is 21 – about 1.75%. Of these 21 patients only 3 can be considered as shewing in any way a haemorrhagic diathesis; none of these are true haemophiliacs. The first is a female suffering from tuberculosis; and the second is an alcoholic; the third being a true case of delayed coagulation. So one is tempted to think that a very large mountain has been laboriously made out of a very small mole hill".

From the standpoint of general surgery too, while the number of cases is much less, no cases of abnormal bleeding were encountered.

### Neuropathic Survey.

Finally I wish to report a summary of the findings in a Neuropathic Survey carried out by Dr. E. F. J. Dunlop. This medical officer had some training and experience in the field of medical psychology and it was felt an investigation of a fairly large sample of the population might be of value.

Patients of both sexes over the age of 16 years were investigated consecutively as they attended the K.E.M. Hospital for treatment. All were subjected to a questionaire specially constructed for the purpose of revealing the presence of neurosis. To each case of nervous disorder so found, a comprehensive case-folio was devoted. This covered all data relevant to such disorders.

## General considerations.

73 persons were investigated, 31 being males and 42 females. 27 lived in the camp and 46 in the town. Diagnosis of neurosis was made in 26 cases, 8 being males and 18 being females. Females showed an incidence of 1.7 to 1 when compared with males. The incidence of neurosis as between camp and town was found to be 2.2 to 1 for males. That for females was found to be 1.6 to 1. The facts emerge that women are not only generally more prone to neurosis than males, but that both sexes are more prone when living in the camp.

No significant difference was found between the neurosis incidence among married and single persons generally. Too few married women without children were available for any effects of childlessness to be recorded.

Only two persons were found to be descended from the marriage of first cousins, and neither of these were neurotic.

Only 8.2% of those investigated belonged to an imported first generation. Those of local origin were grouped as belonging to a second or third generation resident, and of these 71.6% belonged to the third generation. The neurosis incidence of the second generation compared with that of the third as 1.4 to 1. However, 16 neurotics belonged to a third generation of 48 persons investigated, as compared with 9 belonging to a second generation of 19 persons, and it will be seen how difficult of eradication from a community are hereditary factors tending to produce neurosis. This difficulty would be generally accentuated by the admission of undesirable immigrant types, as also by marriages between neuropaths, both of which interfere with the gradual elimination of this strain through a process of dilution in a community of sound stock.

The suicide rate per 1,000 of population in the last five year period has been six times that of the United Kingdom. In the previous five year period this rate approximated to that of the United Kingdom. The proportion of males to females was 3½ to 1.

## Neuropathic Heredity.

This was obtained in 61% of those suffering from neurosis. Their families had longest residence in the Colony through the mother in eight cases, through the father in two cases and there was no difference in fifteen.

The relative frequency of factors contained in neuropathic heredity were as follows :–

| | |
|---|---|
| Alcoholism | 6. |
| Epilepsy | 6. |
| Other nervous disorders | 3. |
| Asthma | 3. |
| Tuberculosis | 2. |
| Suicide | 1. |

No significant difference has been found in the incidence of neuropathic inheritance among those suffering from neurosis in the two generation groups investigated. The incidence of neuropathic inheritance traced to the first generation resident compared with that traced only to the second generation as 3.2 to 1 and that traced through the male compared with that through the female in closely similar proportions.

The qualities of the male immigrant have thus had far reaching effects upon the population subsequently produced.

The incidence of those having partial alien descent in the neurotic group compared with this incidence in the normal group as 2.1 to 1.

### Physical characteristics and general health.

Of those suffering from neurosis, 19 were found to be of the short, stocky type, with rounded body, usually referred to as pyknic, while 7 belonged to the long slender type, usually referred to as leptosomatic.

If injuries are excluded, only 7 complained of symptoms found to be of physical origin. The neurotic condition aggravated the neurosis present in 4 cases. Physical conditions aggravating the neurosis present were found in 5 cases, and these were thyreotoxicosis, menopause, hypothyroidism, gynaecological abnormality, oral sepsis.

### Conclusions.

Descendants of Europeans remain liable to neurosis without having experienced the turmoil of modern life. Neuropathic heredity constitutes the most important factor elicited in its causation. There exists a complicated system of interfamily connections and ties which rather shows that neuropathic heredity revealed in this cross section of the community must extend far into the rest of the population. The incidence of neuropathy, if not as high as in this sample, must nevertheless be considerable, and this is indeed the impression gained from daily medical work and contact.

Subnormal intelligence was not encountered among those suffering from neurosis, but two male mental defectives, both possessing a neuropathic heredity, were found among the 73 adult persons investigated. There were in addition, also, 4 "nervy" people, who could not be quite said to suffer from a psychoneurosis.

Environment exerts its influence, and it seems probable that it may account for some tendency for parents to spoil their children. It certainly aggravates neurosis, and sometimes appears to produce it. The absence of economic stress as a cause must be noted.

The Falkland Islanders are natural extraverts deprived of a part of their expressiveness by environment. The apparent solitary nature of the islander is imposed by environment and is not natural to him. A superficial appearance of being introverted is most deceptive. They are not thinkers but doers by nature. Handicrafts could prove a most valuable outlet for them.

ADDENDUM.

It was found by means both direct and indirect that mental deficiency existed in 2% of 570 persons, a rate twice that which occurs in populations generally. The average intelligence rating in a group of camp children was found to be six points lower than the average. This, however, has been met with in farm children elsewhere, and the slight apparent deficiency was found to be not inherent, but to correspond with conditions of environment.

## XIII. SUMMARY OF REPORTS FROM THE GOVERNMENT MEDICAL OFFICER, WEST FALKLAND.

The Medical Officer on the West Falkland is the only medical officer for the whole island and while the entire population is only some three or four hundred much travelling is necessary to reach outlying settlements.

The actual amount of work is quite small. The Medical Officer was absent from headquarters at Fox Bay during the

| | | 1938. | 1939. |
|---|---|---|---|
| First quarter | – | 11 nights | 7 nights |
| Second quarter | – | 2 „ | 8 „ |
| Third quarter | – | 25 „ | 7 „ |
| Fourth quarter | – | 2 „ | 7 „ |

| | | 1938. | 1939. |
|---|---|---|---|
| Hill Cove | was visited | 6 times | 7 times |
| Port Stephens | „ „ | 2 „ | 5 „ |
| Chartres | „ „ | 6 „ | 2 „ |
| Weddell Island | „ „ | once | once |
| Port Howard | „ „ | 3 times | 3 times |
| Pebble Island | „ „ | once | 4 „ |
| Fox Bay East | „ „ | — | 7 „ |
| Spring Point | „ „ | — | 2 „ |
| Dunnose Head | „ „ | — | once |
| Roy Cove | „ „ | — | once |
| | Totals | 19 | 33 |

## XIV. DEPENDENCIES.

No Government Medical Officer is stationed at South Georgia and hence no information is available. During the whaling season, however, a large number of men are present and the whaling companies provide Norwegian medical officers to care for their employees.

The Senior Medical Officer visited the Dependency of South Georgia in March and a report of this visit is appended.

### Memorandum on the Senior Medical Officer's visit to South Georgia.

During my visit to South Georgia I examined the whaling stations at Grytviken and Leith from a public health standpoint in some detail. The two stations present fundamentally quite similar pictures and may conveniently be compared.

The number of men resident at both places varies seasonally but I was told that there were some two hundred and fifty men at each station during the period when whales are being caught. At Leith I gathered this number might be considerably increased so that accommodation was at a premium for brief periods.

The living quarters for the men consist of one storey barracks with a low loft for storage, washing, etc. A long narrow badly lighted hallway extends along the side or middle, off which small rooms open for the accommodation of four to eight men. Each room has a stove and metal bunks. Since there is no common room each of these bedrooms is large enough to provide space for the men to foregather in social groups. Lighting and ventilation are both strictly limited. I noticed that room temperatures were unduly high and a thick "fug" pervaded the atmosphere. Bed bugs were said to be prevalent, in some houses but Captain Fogerto informed me that lice were absent. In fact this situation was peculiar, in his experience, to the antarctic. Under similar conditions lice were prevalent in the arctic.

At Grytviken working clothes were disposed of and washing done in the long hallway; a better arrangement than at Lieth where washing was done inside the rooms.

Latrines were provided for these quarters situated over a stream at Grytviken and the quayside at Leith. Urinals were not provided and I formed the opinion that the latrines were, for an inclement climate, most 'inconveniently located'. At both places simple types of water borne sewerage could have been provided at small cost attached to each bunk house, but only at Grytviken was a beginning being made in this direction.

*Laundry* – At both stations the individual is responsible for his own laundry but the stations provide a wash house, hot and cold water and soap.

*Bathing Facilities* – At Grytviken excellent shower baths are provided and are largely used. At Leith they are poorer in type, badly located and no doubt as a result little used. The men I was told bathe in the boiler room, etc.

Although a dirty business I was favourably impressed by the interest in personal hygiene evinced by the men. They looked clean for the most part, there was washing on

the line and even[illegible]th brushes in evidence.

*Food.* Messrooms separate from the living quarters are provided and I was impressed by their size and attractive appearance.

The kitchens too impressed me as clean and particularly well run.

The diet is based upon the Norwegian Board of Trade Regulations. They do not follow these very closely but in general I gathered that no restriction was placed upon the quantity eaten. Sugar, starch, fat and protein are all generously provided. While cooked, pressed and preserved meat are important items, fresh meat is regularly provided. Grytviken has a large fridigaire under construction and Argentinian beef is provided. At Leith pigs on a big scale are reared. Fish are caught from time to time. At both stations excellent whole wheat bread is produced.

While it was admitted that the provision of green vegetables and fresh fruit was well nigh impossible except at the beginning of the season, potatoes were always available and at Leith they tried to supply apples and oranges once per week and Marmite and Bemax were also provided.

*Medical Service* – At both stations small hospitals are provided. At Leith there is an Xray unit, older in type than ours, but better functionally. The Medical Officer said it had given no trouble over many years.

There is a resident Medical Officer at both stations and they appeared to be competent young men.

The health of the men is very good. At both stations the daily sick parade numbered about three. Those whom I questioned expressed their satisfaction in regard to food, treatment and working conditions.

Despite the similarity of "set up" in the two plants I was much more favourably impressed by that at Grytviken and this I felt was not altogether due to the more suitable location. The Manager told me that with two of his staff he inspected every room regularly, running his finger over the kitchen sink in search of grease and generally keeping a close watch on conditions. The Norwegian labourers' rooms were neatly kept I observed but it was with an air of polite regret that the Manager showed me the state of disorder remaining after the seven Falkland Islanders had vacated their room. I think the orderliness observed is due to the care and interest of the manager and I refer to it because it lends support to my theory that if station managers here were imbued with a similar spirit some cook houses would present a different appearance.

In conclusion I would like to draw attention to the excellent whole-wheat bread I saw and tasted at both stations. If that is practicable in South Georgia it ought to be more readily available here.

## RETURN OF DISEASES AND DEATHS, KING EDWARD VII. MEMORIAL HOSPITAL. 1939.

| | Disease. | In Patients. Total Admissions. | In Patients. Deaths. |
|---|---|---|---|
| I. | Infectious and Parasitic Diseases. | | |
| 23. | Tuberculosis of the Respiratory System. ... | 6 | |
| 25. | Tuberculosis of the intestines and peritoneum ... | 1 | 1 |
| 34. | Syphilis ... ... ... ... | 1 | |
| 35. | Other venereal diseases ... ... ... | 3 | |
| II. | Cancer and other Tumours. | | |
| 46. | Cancer of the digestive organs & peritoneum ... | 2 | 2 |
| 48. | Cancer of the uterus ... ... ... | 1 | |
| III. | Rheumatism, Diseases of Nutrition, Endocrine Glands, other general diseases. | | |
| 56. | Rheumatic fever ... ... ... | 2 | |
| 57. | Chronic rheumatism, Osteo-arthritis ... | 6 | |
| 59. | Diabetes ... ... ... ... | 4 | 1 |
| 64. | Osteomalacia ... ... ... ... | 1 | |
| 69. | Other general diseases ... ... ... | 7 | |
| IV. | Diseases of the Blood. | | |
| 71. | Anaemia, Chlorosis ... ... ... | 2 | |
| 74. | Other blood diseases ... ... ... | 1 | |
| V. | Diseases of Nervous System. | | |
| 81. | Diseases of the spinal cord ... ... | 3 | 1 |
| 84. | Other forms of insanity ... ... ... | 1 | |
| 87. | Other diseases of the central nervous system ... | 1 | |
| 87b. | Neuritis ... ... ... ... | 2 | |
| 88. | Diseases of eye and annexa ... ... | 1 | |
| VII. | Diseases of the Circulatory System. | | |
| 90. | Pericarditis ... ... ... ... | 1 | |
| 93. | Diseases of the myocardium ... ... | 2 | 1 |
| 97. | Arterio-sclerosis ... ... ... ... | 1 | 1 |
| 100. | Diseases of the veins ... ... ... | 2 | |
| VIII. | Diseases of Respiratory System. | | |
| 110. | Pleurisy ... ... ... ... | 1 | |
| 112. | Asthma ... ... ... ... | 1 | |
| 114. | Other diseases of the respiratory system ... | 2 | |
| IX. | Diseases of the Digestive System. | | |
| 115. | Diseases of the teeth & gums ... ... | 31 | |
| | Diseases of the tonsils ... ... ... | 16 | |
| | Other diseases of buccal cavity & pharynx ... | 1 | |
| 117a. | Ulcer of the stomach ... ... ... | 1 | |
| 118. | Inflammation of the stomach ... ... | 3 | |
| | Dyspepsia and other diseases ... ... | 1 | |
| 120. | Gastro-enteritis ... ... ... ... | 1 | |
| | *Carried Forward* | 109 | 7 |

| Disease. | In Patients. Total Admissions. | In Patients. Deaths. |
|---|---|---|
| *Brought Forward* | 109 | 7 |
| 121. Appendicitis ... ... ... ... | 16 | |
| 122. Hernia: inguinal ... ... ... | 4 | |
| Intestinal obstruction ... ... | 1 | |
| Constipation ... ... ... | 1 | |
| Other diseases ... ... ... | 1 | |
| 124. Alcoholic cirrhosis ... ... ... | 1 | |
| 125. Other diseases of the liver ... ... ... | 1 | |
| 126. Biliary calculi ... ... ... ... | 4 | |
| 127. Cholecystitis ... ... ... ... | 1 | |
| Jaundice ... ... ... ... | 1 | |
| X. Non-Venereal diseases of the Genito-urinary System. | | |
| 133. Diseases of the bladder ... ... ... | 1 | |
| 138. Circumcision ... ... ... ... | 1 | |
| 138. Paraphimosis ... ... ... ... | 1 | |
| 139a. 1 Ovary ... ... ... ... | 1 | |
| 139b. Diseases of the uterus ... ... ... | 7 | |
| 139c. Diseases of the breast ... ... ... | 1 | |
| 139d. Other diseases of the female genital organs ... | 2 | |
| XI. Diseases of Pregnancy, Child-birth & the Puerperal State. | | |
| 141. Abortion ... ... ... ... | 1 | |
| 146. Puerperal albuminuria and convulsions ... | 1 | |
| 147. Toxamia of pregnancy ... ... ... | 2 | |
| 150. 2 Puerperal diseases of breast ... ... | 2 | |
| 3 Childbirth ... ... ... ... | 42 | |
| XII. Diseases of the Skin and Cellular Tissue. | | |
| 152. 1 Cellulitis ... ... ... ... | 3 | |
| 153. Other diseases of skin and annexa ... ... | 2 | |
| XIII. Diseases of Bones and Organs of locomotion. | | |
| 156a. Diseases of the joints ... ... ... | 2 | |
| d. Diseases of other organs of locomotion ... | 1 | |
| XV. Diseases of early Infancy. | | |
| 161. Diseases peculiar to early infancy ... ... | 2 | |
| XVII. Violence. | | |
| 181. Accidental burns ... ... ... | 1 | |
| 194. Blows ... ... ... ... ... | 1 | |
| Contusions ... ... ... ... | 3 | |
| Concussion ... ... ... ... | 1 | |
| Fractures ... ... ... ... | 3 | |
| Strain ... ... ... ... ... | 2 | |
| 200. Other ill-defined causes ... ... ... | 2 | |
| *Totals* | 225 | 7 |

# FALKLAND ISLANDS.

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## ANNUAL

# MEDICAL AND SANITARY REPORT

FOR THE

YEAR ENDED 31ST DECEMBER, 1940.

*Published by Command of His Excellency the Governor.*

PORT STANLEY.

PRINTED BY THE GOVERNMENT PRINTER, FALKLAND ISLANDS.

1941.

Office of the Senior Medical Officer,
King Edward VII Memorial Hospital,
Stanley, Falkland Islands,
7th March, 1941.

Sir,

I have the honour to submit for the information of His Excellency the Governor and for transmission to the Right Honourable the Secretary of State for the Colonies, the Medical Report on the Health and Sanitary conditions of the Colony of the Falkland Islands for the year 1940, together with returns, etc., appended thereto.

I am,
Sir,
Your obedient servant,
Geo. Kinneard,
*Senior Medical Officer.*

The Honourable,
The Colonial Secretary,
Stanley.

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# ANNUAL MEDICAL AND SANITARY REPORT

FOR THE

YEAR ENDED 31st DECEMBER, 1940.

## (A) STATISTICAL RETURNS.

### (1) Financial.

Comparative statement of Revenue received :

| | 1939. £ s. d. | 1940. £ s. d. |
|---|---|---|
| Medical subscriptions ... ... | 748 : 15 : 7. | 733 : 1 : 5. |
| Medical Fees ... ... ... | 565 : 17 : 0. | 875 : 8 : 3. |
| Dental Fees ... ... ... | 681 : 3 : 3. | 701 : 14 : 0. |
| Totals | £1,995 : 15 : 10. | £2,310 : 3 : 8. |

Unpaid accounts for the year 1940 including previous years, on December 31st, amounted to ... ... ... £196 : 7 : 0.

Figures covering general revenue and expenditure are not available for 1940.

### (2) Vital Statistics.

Population – The estimated population 31st December 1940 was 2,405 (2,425 in 1939). About 51% of the population lives in Stanley. Birth rate per 1,000 – 15.38 (19.3 in 1939). Death rate per 1,000 – 8.32 (7.01 in 1939). Maternal Mortality – Nil. Infant Mortality over the past 5 year period – 35 per 1,000 live births. The resident population in the Dependencies was estimated to be 360.

## (B) Port Health Administration.

There is nothing new to report – see previous reports.

## (C) Communicable Diseases.

*Tuberculosis.* During the past forty-five years about one hundred people in the Colony have died of tuberculosis. The number dying in any one year has been two to three people giving an average for the entire period of two persons. This gives a rate per 1,000 of 0.877 which is much the same as the present rate in the United Kingdom and would appear to indicate that the factors producing this mortality have remained remarkably constant.

Few if any of the special factors are operative here to account for the incidence of tuberculosis and theoretically there should be no tuberculosis. For the presence of the disease one can suggest some three reasons:–

(a) A lower genetic resistance in some families.
(b) Foci of infection usually unrecognized producing slowly progressive household epidemics.
(c) Bovine Tuberculosis.

During the past two years both the incidence and mortality have shown sharp increases but it is much too soon to suggest that this marks the beginning of a change for the worse since conditions in the Colony have not altered to any marked extent. The increased mortality has however stimulated the department to devote much more time and consideration to this disease. Perhaps this explains the increased admissions to the K.E.M. Hospital.

There were *four* cases admitted to the K.E.M. Hospital in 1938; this rose to *seven* cases in 1939 while in 1940 there were *fifteen* cases. Similarly the mortality rate per 1,000 in 1938 was 0.403 in 1939 it rose to 1.25 and in 1940 the rate was 2. As a preliminary step to gain some insight into the prevalence of tuberculosis infection the children in the Government School were tested by means of the Vollmer Tuberculin Patch Test. Careful preparation for this was necessary in a community largely ignorant of many things and predisposed to resist what they do not fully understand. As a result good co-operation was secured and one hundred and eighty-six children were tested.

Statistically the tests yielded the following figures
Total tested – 186. Ages tested 4 to 16 years.
Taking the group as a whole 85% were negative;
10% were positive and 5% doubtful.

During 1941 it is hoped to extend this work and secure a sufficiently numerous group to jusify analysis. However, this preliminary investigation appears to indicate that the total amount of infection is not large.

All the positive reactors were examined clinically, their chests Xrayed and a blood sedimentation test done. Minimal Xray evidence of infection was secured in practically all cases but no active disease was discovered.

A search was made in the homes of these children and others in the family checked up with a view to explaining the source of infection. In about half the cases no obvious source of infection was found but the vast majority gave a history of drinking raw milk suggesting this as a possible source.

### Prevention and Control.

To serve as a basis of control we set up during the year a Register of Tuberculosis. In this we recorded all the known cases infected with the tubercle baccillus up to the present and we entered on each file all the data about them secured up to this year. The Register now shews:–

5 open cases.
9 Clinical cases.
41 persons with positive skin test and possibly other evidence of infection but no evidence of active disease.

The intention is to add other cases to the list as found and to keep the large group which has no active signs at present, under observation by inspection twice a year.

### The Role of Milk.

Clinically during the year three cases of acute generalized tuberculosis were seen in adults and three cases of pleurisy with effusion. Tuberculosis of the bones is seen also

although no cases occurred this year. Five cows at the two registered dairies were slaughtered after tuberculin testing. A large number of the positive skin reactors among the children showed no evident source of their infection but did give a history of drinking raw milk. Until the present year there has been no organized effort to tuberculin test cattle or lay down any scheme for eliminating the disease.

During the year we succeeded in getting the Agricultural Department which directly controls both milk and stock, to accept in principal that adequate measures to ensure safe milk includes:–

(a) Declaring the Stanley district a closed area into which cattle would only be received after inspection and tuberculin testing. When passed, animals would be re-tested at six month intervals.

(b) Pasteurisation of milk. At present no pasteuriser is available but it has been agreed that should a Government dairy be established then a pasteurizing plant will be built.

The Agricultural Department takes the view that on the available data the amount of infection in the cattle cannot be large and the number of dairy cows actually excreting tubercle bacilli must be still smaller. With this view the writer entirely agrees but it is clearly recognized that without strict control the milk from occasional heavily diseased animals may flood a small dairy's milk with great numbers of organisms producing a highly dangerous food. That this has occurred in the past one has no doubt whatever.

Isolation of Open Cases.

Every effort is made to isolate open cases and clinically active cases from children but no hospital facilities exist for this save in the wards of the K.E.M. Hospital which was of course never intended for such cases and is not equipped to handle them. Despite this, as the lesser of two evils, two or three open cases were admitted for the reason that home surroundings were even more unsuitable. A special isolation ward was asked for in the 1940 Estimates and was again inserted in the Estimates for 1941 but it is unlikely that anything will be done until the end of the war.

From the standpoint of education a long series of discussion was broadcast over the local radio covering various aspects of the disease and these were listened to with considerable interest.

No other disease calls for special comment.

## KING EDWARD VII MEMORIAL HOSPITAL.

This institution continued to serve the Colony and the volume of work remained at about the same level. Admissions numbered 235 (130 males; 105 females) as against 225 last year. The daily average was 8 the same as in 1939 of these

145 were discharged cured
68 „ „ relieved
13 „ „ unchanged
7 died (three from tuberculosis)

During January and February the hospital was concerned largely with the care of the "Exeter" wounded. These by March the 1st were reduced to five fracture cases which were transferred to Simon's Town Naval Hospital. These cases are not included in the above figures.

Visiting ships contributed fifty-three admissions quite apart from "Exeter" cases so that native hospital admissions actually showed a sharp contraction.

## OUT PATIENT & DISTRICT CALLS.

| First visit to the Out-patient Department. | Subsequent Attendances. |
|---|---|
| 1,060 (648) | 1,550 (751) |
| 2,610 (1,399) | |

| First District Visits. | Subsequent Visits. |
|---|---|
| 180 (117) | 733 (343) |
| 913 (460) | |

1939 figures are given in brackets.

## HYGIENE & SANITATION.

There is nothing to report – see previous years.

The following figures supplied by the Public Works Department indicate actual water consumption and the extent to which the public water and sewage system has been connected to premises in the town:–

| | *1939.* | *1940.* |
|---|---|---|
| Water consumption per day | 20,000 | 24,000 gals. |
| Total number of houses in Stanley | 291 | 293 |
| Properties connected to watermain | 206 | 225 |
| Water connections made | 16 | 19 |
| Reservoir storage | 355,142 | 355,142 gals. |
| Hydrants on water mains | 30 | 30 |
| Lavatories, flushing | 161 | 163 |
| Connections to main sewer | 225 | 227 |

## RETURN OF DISEASES AND DEATHS, KING EDWARD VII. MEMORIAL HOSPITAL. 1940.

| | Disease. | In Patients. Total Admissions. | In Patients. Deaths. |
|---|---|---|---|
| I. | INFECTIOUS AND PARASITIC DISEASES. | | |
| 11. | Influenza ... ... ... ... | 3 | |
| 23. | Tuberculosis of the Respiratory System. ... | 12 | 1 |
| 24. | Tuberculosis of the Central Nervous system ... | 1 | 1 |
| 27. | Tuberculosis of bones and joints ... ... | 1 | |
| 32. | Tuberculosis, Dissem ... ... ... | 1 | 1 |
| 34. | Syphilis: Primary ... ... ... | 2 | |
| | Tertiary ... ... ... | 1 | |
| 35. | Gonorrhoea ... ... ... ... | 2 | |
| | Climatic bubo ... ... ... ... | 1 | |
| II. | CANCER AND OTHER TUMOURS. | | |
| 46. | Cancer of the lung ... ... ... | 1 | |
| 53. | Cancer of other sites ... ... ... | 1 | 1 |
| 54. | Non-malignant tumours ... ... ... | 1 | |
| III. | RHEUMATISM, DISEASES OF NUTRITION, ENDOCRINE GLANDS, OTHER GENERAL DISEASES. | | |
| 59. | Lumbago ... ... ... ... | 1 | |
| 66. | Thyrotoxicosis ... ... ... ... | 1 | |
| IV. | DISEASES OF THE BLOOD. | | |
| 71. | Primary haemolytic anaemia ... ... | 1 | 1 |
| V. | DISEASES OF NERVOUS SYSTEM. | | |
| 81. | Hysteria ... ... ... ... | 5 | |
| | Neurasthenia ... ... ... ... | 3 | |
| 82. | Cerebral Haemorrhage ... ... ... | 1 | 1 |
| 88. | Mastoiditis ... ... ... ... | 1 | |
| VII. | DISEASES OF THE CIRCULATORY SYSTEM. | | |
| 93. | Myocarditis ... ... ... ... | 2 | |
| 97. | Arterio-sclerosis ... ... ... | 1 | 1 |
| | Coronary thrombosis ... ... ... | 3 | |
| 100. | Varicose Veins ... ... ... ... | 4 | |
| 102. | Hyperoiesis ... ... ... ... | 1 | |
| VIII. | DISEASES OF RESPIRATORY SYSTEM. | | |
| 104. | Sinusitis ... ... ... ... | 1 | |
| 106. | Bronchitis ... ... ... ... | 2 | |
| 107. | Broncho-pneumonia ... ... ... | 2 | |
| IX. | DISEASES OF THE DIGESTIVE SYSTEM. | | |
| 115. | Dental caries (Admitted for extraction) ... | 32 | |
| | Tonsillitis (10 admitted for T. & A.) ... | 15 | |
| | Harelip ... ... ... ... | 1 | |
| 118. | Dyspepsia ... ... ... ... | 2 | |
| | Gastritis ... ... ... ... | 5 | |
| | *Carried Forward* | 111 | 7 |

| Disease. | In Patients. | |
|---|---|---|
| | Total Admissions. | Deaths. |
| *Brought Forward* | 111 | 7 |
| 120. Gastro-enteritis ... ... ... ... | 5 | |
| 121. Appendicitis ... ... ... ... | 6 | |
| Gangrenous appendicitis ... ... ... | 1 | |
| 122. Hernia: Inguinal ... ... ... | 3 | |
| Strangulated inguinal ... ... | 1 | |
| Umbilical ... ... ... | 1 | |
| 123. Constipation ... ... ... ... | 2 | |
| Fistula-in-ano ... ... ... ... | 1 | |
| 126. Biliary calculi ... ... ... ... | 1 | |
| Cholecystitis ... ... ... ... | 6 | |
| 129. Peritonitis; acute ... ... ... | 2 | |
| chronic ... ... ... | 1 | |
| X. Non-Venereal diseases of the Genito-urinary System. | | |
| 132. Uraemia ... ... ... ... | 1 | |
| 138. Hydrocele ... ... ... ... | 1 | |
| 139. Cervicitis ... ... ... ... | 2 | |
| Cystocele ... ... ... ... | 1 | |
| 141. Abortion ... ... ... ... | 2 | |
| 147. Toxamia of pregnancy ... ... ... | 2 | |
| 150. Childbirth ... ... ... ... | 23 | |
| XII. Diseases of the Skin and Cellular Tissue. | | |
| 152. Cellulitis ... ... ... ... | 15 | |
| 153. Dermatitis, (eczema, herpes, psoriasis) ... | 8 | |
| 155. Scoliosis ... ... ... ... | 1 | |
| XIII. Diseases of Bones and Organs of locomotion. | | |
| 156. Synovitis ... ... ... ... | 1 | |
| XVII. Violence. | | |
| 179. Accidental poisoning ... ... ... | 1 | |
| 181. Burns ... ... ... ... ... | 4 | |
| 194. Concussion ... ... ... ... | 3 | |
| Wounds and contusions ... ... ... | 9 | |
| Fractures ... ... ... ... | 4 | |
| Sprains ... ... ... ... | 3 | |
| XVIII. Ill-Defined. | | |
| P. U. O. ... ... ... ... ... | 3 | |
| Observation ... ... ... ... | 3 | |
| Feeding cases ... ... ... ... | 4 | |
| Chronic invalidism ... ... ... ... | 1 | |
| Contraction ... ... ... ... | 1 | |
| Malingering ... ... ... ... | 1 | |
| *Totals* | 235 | 7 |

# Statistical Return of Dental Work done.

| 1940. | Children seen. | No. of Visits. | New Patients. | Old Patients. | Total Patients. | General anaesthetics. | No. of Extractions at G.A's. | Minor operations. | Free. | | | | | | Paid for. | | | | | | Total. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Extractions. | Fillings. | Scalings. | Dentures. | Repairs. | Cost. £ s. d. | Extractions. | Fillings. | Scalings. | Dentures. | Repairs. | Value of work. £ s. d. | Extractions. | Fillings. | Scalings. | Dentures. | Repairs. | Value of work done. £ s. d. |
| January | 19 | 115 | 9 | 62 | 71 | 2 | 26 | 0 | | | | | | 6 18 6 | | | | | | 16 14 0 | 46 | 52 | 2 | 14 | 3 | 9 16 0 |
| February | 22 | 142 | 12 | 84 | 96 | 0 | 0 | 0 | | | | | | 16 14 0 | | | | | | 52 12 6 | 76 | 41 | 10 | 21 | 11 | 68 16 6 |
| March | 12 | 87 | 10 | 43 | 53 | 5 | 49 | 0 | | | | | | 9 16 0 | | | | | | 40 5 6 | 169 | 39 | 9 | 12 | 2 | 50 1 6 |
| April | 47 | 222 | 17 | 123 | 140 | 2 | 30 | 1 | | | | | | 8 14 6 | | | | | | 121 15 6 | 377 | 148 | 10 | 19 | 13 | 63 19 9 |
| May | 28 | 247 | 50 | 123 | 173 | 2 | 21 | 1 | | | | | | 14 14 0 | | | | | | 55 5 3 | 129 | 68 | 6 | 16 | 14 | 136 9 6 |
| June | 51 | 134 | 12 | 82 | 94 | 3 | 6 | 0 | | | | | | 7 4 0 | | | | | | 23 3 9 | 81 | 31 | 7 | 5 | 3 | 30 7 9 |
| July | 33 | 264 | 18 | 141 | 159 | 4 | 30 | 0 | | | | | | 17 8 6 | | | | | | 92 12 0 | 150 | 79 | 13 | 26 | 10 | 110 0 6 |
| August | 54 | 327 | 30 | 147 | 177 | 7 | 66 | 1 | | | | | | 20 6 0 | | | | | | 70 1 0 | 145 | 114 | 17 | 20 | 18 | 90 7 0 |
| September | 39 | 224 | 8 | 105 | 113 | 5 | 61 | 0 | | | | | | 9 4 0 | | | | | | 87 12 6 | 120 | 87 | 11 | 21 | 16 | 96 16 6 |
| October | 40 | 238 | 21 | 101 | 122 | 5 | 46 | 0 | | | | | | 8 14 6 | | | | | | 54 3 9 | 96 | 80 | 12 | 22 | 10 | 62 18 3 |
| November | 48 | 246 | 14 | 124 | 138 | 2 | 13 | 0 | | | | | | 16 3 3 | | | | | | 49 14 6 | 64 | 140 | 17 | 13 | 7 | 65 17 9 |
| December | 24 | 137 | 6 | 86 | 94 | 1 | 6 | 0 | | | | | | 14 12 6 | | | | | | 25 14 0 | 76 | 64 | 13 | 9 | 5 | 40 6 6 |
| Grand Total 1940. | 417 | 2383 | 207 | 1221 | 1430 | 38 | 354 | 3 | | | | | | 150 9 9 | | | | | | 689 14 3 | 1529 | 943 | 127 | 198 | 112 | 825 17 6 |
| Total 1939. | 475 | 2051 | 276 | 964 | 1240 | 30 | 320 | 5 | | | | | | 144 5 3 | | | | | | 523 10 3 | 1383 | 647 | 59 | 161 | 61 | 667 15 6 |
| Total 1938. | 677 | 3205 | 585 | 1222 | 1817 | 36 | 418 | 3 | | | | | | 382 11 6 | | | | | | 765 5 9 | 2375 | 1125 | 97 | 265 | 102 | 1146 17 3 |
| Total 1937. | 788 | 2690 | 747 | 590 | 1337 | 40 | 429 | 14 | | | | | | £405 13 6 | | | | | | £666 2 6 | 2425 | 1102 | 106 | 170 | 59 | £1071 16 0 |