



FALKLAND ISLANDS.

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ANNUAL

MEDICAL AND SANITARY REPORT

FOR THE

YEAR ENDED 31ST DECEMBER, 1931.

Published by Command of His Excellency the Governor.

PORT STANLEY:

PRINTED BY THE GOVERNMENT PRINTER FALKLAND ISLANDS.

1932.

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FALKLAND ISLANDS.

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FOR THE

YEAR ENDED 31ST DECEMBER, 1931.

I. ADMINISTRATION.

(A) Establishment, vacancies and acting appointments.

MEDICAL STAFF.

- 1 Principal Medical Officer.
- 1 Medical Officer.
- 1 Dental Surgeon.

NURSING STAFF.

- 1 Matron.
- 1 Nursing Sister.
- 2 Junior Nurses.
- 2 Probationers.

SUBORDINATE MEDICAL AND SANITARY STAFF.

- 1 Sanitary Inspector.
- 1 Clerk (part time).
- 1 Dental Mechanic.

Attendant Gardener and Domestic Staff.

APPOINTMENTS, PROMOTIONS ETC.

W. B. R. Jones, M.R.C.S., L.R.C.P., transferred to Nevis, Leeward Islands, on expiration of leave, 9/3/31.

H. G. Edmunds, L.M.S.S.A., appointed Medical Officer, 22/5/31.

J. M. Coutts, M.M., L.D.S., (R.C.S.E.), transferred to Federated Malay States 11/7/31.

S. W. Harding, L.D.S., (R.C.S.I.), appointed Dental Surgeon 9/11/31.

Mrs. E. Smith appointed Junior Nurse 1/2/31.

Miss S. G. E. Berntsen appointed Nurse Probationer 9/2/31.

(B) Legislation.

Two Ordinances affecting the Public Health were enacted during the year.

(i) Ordinance No. 6 of 1931. To amend the Public Health Ordinance No. 5 of 1894. This Ordinance provides, (a) power whereby buildings unfit for human habitation may be prohibited from use, and (b) power of entry for the Principal Medical Officer, and Medical Officer into any building for the purpose of enforcement of the Public Health Ordinance No. 5 of 1894, and of any bye-laws made under this Ordinance.

(ii) Ordinance No. 11 of 1931. To prevent the introduction of Venereal Disease into the Colony. This Ordinance provides, (a) no person suffering from venereal disease

shall land in the Colony except with permission of the Governor, and (b) any person found suffering from venereal disease after landing in the Colony to be subject to restriction, (c) a penalty for evasion of this Ordinance.

Amendment of the Stanley Milk Supply Protection Bye-Laws 1928 was made.

The Stanley Milk Supply Protection (Amendment) Bye-Laws 1931, repeal sections 3 and 4 of the Stanley Milk Supply Bye-Laws 1928, and provide, (i) Section 2, no person shall sell milk or cream without a licence from the Board of Health, (ii) Section 3, Licences must be issued annually.

(C) Financial.

The following table shows the Revenue and Expenditure during the year 1931 in respect of the Medical services of the Colony :—

REVENUE.				£	s.	d.
Hospital Fees, Sale of Medicines, etc. ...	...	...	...	448	10	11.
Medical Staff Fees ...	...	...	...	161	4	9.
East Falkland Farmers' Medical Contribution ...	...	...	...	261	6	8.
Total				£871	2	4.
EXPENDITURE.				£	s.	d.
* Personal Emoluments ...	...	...	...	2754	19	9.
Other Charges ...	...	...	...	1175	3	1.
Total				£3930	2	10.

* The Principal Medical Officer, Medical Officer and Dental Surgeon are whole time officers, and all fees collected for their services are paid into Revenue.

II. PUBLIC HEALTH.

(A) General Remarks.

(1) GENERAL DISEASES.

There has been no serious outbreak of illness during the year. In the autumn a mild epidemic of acute nasal catarrh was experienced. The health of the people as a whole is good. Regular bi-annual tours of the northern portion of the camps are made by the Medical Officer, and the general health is reported as good. In the spring the Principal Medical Officer made a short excursion into the southern part of the East Island, and found generally, that the health standard is good. In future, also, the Dental Surgeon will make regular annual visits to the camps on East and West Island for the purpose of improving the dental condition of the populace.

Appendicitis. 27 cases were operated on. These cases were monotonous in their clinical similarity. All complained of more or less constant discomfort, or pain, in the right iliac fossa, associated with occasional attacks of malaise. On examination, tenderness of a varying degree was found over the appendicular region. At operation one appendix was found to contain oxyuris vermicularis, and all others exhibited evidence of chronic inflammation, associated with adhesions.

The Dental condition of the population is improving, but a great deal of work remains to be done. The constant Association of chronic appendicitis, and carious teeth has been noted. (Appendix 1).

Government Officials. The health of Government officials has been uniformly good. There were no deaths, and there were few cases of sickness of a severe nature. One female official was invalided to the United Kingdom on account of a recrudescence of ill-health, contracted during previous service abroad. It is considered that the leave and passage regulations, whereby the tour of service is shortened, contribute much to the satisfactory general state of health.

(2) COMMUNICABLE DISEASES.

Tuberculosis. Three fresh cases were notified. One tuberculous laryngitis (male), one *tabes mesenterica* (female) and one pulmonary tuberculosis (female).

Four persons, three males and one female died of tuberculosis.

Bronchial Catarrh, Bronchitis, Broncho-pneumonia. As the winter was exceptionally fine there were fewer cases of bronchitis, etc., than is usual in the winter months.

Grave Epidemic Disease. There were no cases of grave epidemic disease.

Malaria. Malaria, and other insect-borne diseases are unknown in the Colony.

Scarlatina, measles, diphtheria, whooping cough, chicken pox, and influenza. No cases occurred.

Veneral Disease. In all four cases of gonorrhoea from ships were treated. Veneral disease among the Islanders does not exist. Legislation aiming at the prevention of its introduction has been enacted. Ordinance No. 11 of 1931.

(B) Vital Statistics.

(1) The Islanders as a whole, as well as Government Officials, are European, or of European descent.

A census taken during the year of the population of the Colony, exclusive of the Dependencies, showed the number of inhabitants to be 2,392. The population is distributed mainly as follows :—

East Falklands (exclusive of Stanley) ...	...	702.
Stanley ...	...	1,213.
West Falklands ...	...	426.

The rate of increase of the population is the same for both sexes, and is 14.2%.

During the year 55 births and 20 deaths were recorded, giving the following rates :—

Population ...	...	2,392.
Birth Rate per 1000 ...	...	22.77
Death Rate per 1000 ...	...	8.28
Infantile Mortality Rate per 1000 births ...	...	36.36

Registration of Births, Deaths, and Marriages is compulsory under Ordinance No. 12 of 1853.

(2) Health of Government Officials. The general health of the officials has been good. There were no deaths.

III. HYGIENE AND SANITATION.

(1) PREVENTIVE MEASURES.

(a) *Insect-borne diseases.* These are unknown in the Colony.

(b) *Epidemic disease.* There were no epidemics.

Small-pox and Vaccination. Vaccination is compulsory under the Vaccination Ordinance, 1868.

(c) *Water-borne diseases.* None.

(d) *Tuberculosis.* Three fresh cases were notified. There were four deaths from tuberculosis, and as far as is known, there remain only one case of open tuberculosis (pulmonary), and one case of bone tuberculosis. The situation cannot be described as alarming.

(e) *Helminthic Diseases.* Apart from oxyuris, intestinal parasites are unknown.

(f) *Venereal Disease.* Legislation was enacted aiming at the prevention of the introduction of venereal disease among the Islanders. Ordinance No. 11 of 1931.

(g) *Recreation.* A good deal of attention is paid to outdoor and indoor recreation. A keen interest is taken in golf, hockey, badminton, riding and shooting. Football has assumed a prominent place among the outdoor recreations of Stanley. The new Public Baths and Gymnasium are well attended and provide a great source of pleasure and comfort in the lives of the inhabitants of Stanley. Visitors from the camp also are not slow to avail themselves of the comfort of the public baths.

(2) GENERAL SANITATION.

(a) *Sewage Disposal.* Sewage is disposed of partly by water-carriage system, and partly by E.C. method. During the year the sewers in the town have been greatly extended, and it remains for the inhabitants to take greater advantage of the facilities supplied, as the major portion of the town has a water-carriage system. The night-soil from the E.C.'s. is removed by special carts under the control of the Public Works Department.

(b) *Scavenging.* Ashes and household refuse are stored in ashbins. The Sanitary Inspector enforced the bye-law, whereby these must be emptied once a month, whenever it seemed necessary to do so.

(c) *Roads and Drainage.* A great advance has been made in improving the roads generally and in constructing new roads and the necessary attendant drains and sewers.

(d) *Water Supply.* The water supply is wholesome and satisfactory. At an early date an extension of the water supply to the upper region of the town will be undertaken.

(e) *Slaughterhouses and Meat Inspection.* The three slaughterhouses now comply with the requirements of the Board of Health with regard to construction, drainage, and water supply.

Meat for human consumption was inspected at intervals by the Veterinary Officer, and Sanitary Inspector.

(f) *Dairies.* From time to time samples of milk were obtained and tested. The improvement in milk samples noted last year continues. The regulations regarding the selling of milk have again been made more stringent. Stanley Milk Supply Protection (Amendment) Bye-laws, 1931.

(3) SCHOOL HYGIENE.

The Medical Officers and Colonial Dentist regularly inspected the Government School and St. Mary's School attached to the Catholic Church.

Inspection of each child is recorded on a special form. (Appendix II).

The hygienic condition of the schools was found to be, at all times, satisfactory. There is no doubt but that the care given by the school staffs to the physical culture and well-being of the school children contributes much to the good of the Public Health.

(4) HOUSING.

The rate of building is adequate to immediate needs and there is nothing to add to what has been noted in previous reports. This problem, for the present, may be considered as settled.

Legislation was enacted giving powers to deal with houses unfit for human habitation. Ordinance No. 6 of 1931.

(5) DIET IN HEALTH AND DISEASE.

The food problem, as stated in previous reports, in the Falkland Islands, is never one

of quantity and quality, but of balance and variety. Residents from Europe find difficulty, as a rule, in varying their diet sufficiently.

The need for the cultivation and eating of green vegetables, grown in a soil to which lime has been added, must be again emphasised.

(6) ANTI-RAT CAMPAIGN.

The Government bi-annual rat weeks have achieved great success in clearing the rubbish dump etc., of rats. The public, generally, has done little to help in this matter.

Owners and occupiers of premises under the Extermination of Rats and Mice Bye-Laws, 1928, are obliged to take steps to exterminate rats and mice.

(7) RECOMMENDATIONS FOR FUTURE WORK.

- (i) Completion of roads, drainage and water supply.
- (ii) Continuance of supervision of slaughterhouses and meat inspection.
- (iii) Close supervision of milk supply.
- (iv) Continuance of bi-annual rat week.
- (v) Continuance of dental supervision of school children.

IV. PORT HEALTH WORK AND ADMINISTRATION.

17 vessels, with a registered tonnage of 41,841, and with crews totalling 807 were given pratique during the year. It was not found necessary to quarantine any vessel calling at the port. It is the invariable practice of the inspecting M.O. to see all the passengers landing at the port.

V. MATERNITY AND CHILD WELFARE.

Twenty three maternity cases were treated in hospital. The out-patient department provides the necessary ante-natal and post natal services and this clinic is well attended.

VI. HOSPITAL.

The King Edward VII Memorial Hospital comprises 12 beds, out-patient department, operating theatre, office, stores, and quarters for nurses.

Two outside buildings provide (a) Dental Surgeon's Office and workshop and quarters for Junior Nurses and maids, (b) drug store and laboratory.

6 patients remained in hospital from 1930, 173 were admitted in 1931. Of these 155 were cured, 19 relieved, 3 died, and 2 remained at the end of the year.

43 surgical operations were performed with good results.

72 dental operations were performed under general anaesthetic.

Anaesthetics were efficiently administered by J. M. Coutts, M.M., L.D.S., in the absence of the M.O. and by H. G. Edmunds, L.M.S.S.A., after appointment.

The deaths in hospital were due to, one tuberculous laryngitis, one valvular disease of the heart, and one pyonephritis.

In 1930 John Hamilton, Esq., of Weddell Island magnanimously gifted £200 to the hospital. This money was expended in the purchase of five hospital beds of a modern type, two invalid chairs, an instrument cabinet, dressing trolley, anaesthetist's stool, clock, medical reference books, and a diagnostic case. This exceedingly generous gift has been much appreciated by the patients and staff.

No structural alterations were made in the hospital.

Out-patient Department. The number of persons treated in the out-patient department was recorded as 1,061, and the total number of attendances as 2,096.

Minor operations are performed in the out-patient department.

VII. PRISONS AND ASYLUMS.

There are no asylums in the Colony and no lunatics were under supervision.

The prison was regularly inspected and found to be in a clean and satisfactory condition. The health of the one prisoner was good during his brief sojourn in gaol.

VIII. METEOROLOGY.

The Falkland Islands are situated about 300 miles east of South America in latitude 51°43 s. and longitude 57°51 w. (Stanley).

The climatic conditions during 1931 were exceptionally good. The autumn was fine and dry. The winter was exceptionally mild, and many days of brilliant sunshine were experienced, and also the last part of the year was good. The climate of the Falklands is rigorous, and the almost continuous high winds and lack of sunshine render it trying to people from Europe.

The meteorological returns are appended (Table II).

IX. SCIENTIFIC.

The Phillips Metalix Portable X-Ray apparatus continues to render efficient service.

The actual photographic work, developing of films, printing etc., in connection with the X-Ray apparatus, is executed by the Hon. G. Roberts, Director of Public Works, to whom a special tribute is due for his valuable help.

The laboratory has all the necessary equipment and is used by both the Veterinary Officer and the Medical Staff.

B. DEPENDENCIES.

No health reports from the Dependencies are available.

The whaling companies operating in the Falklands' Sector maintain their own medical organisations and these are, apparently, satisfactory.

The weather conditions during 1931 have been uniformly bad, but health conditions are relatively good, except that constant bad weather and lack of sunshine produce a state of mental depression, bordering on melancholia, in a number of cases.

The population, in summer, as shown by the census return 1931, is 1,337.

J. INNES MOIR,

Principal Medical Officer.

Stanley, Falkland Islands.

12th February, 1932.

T A B L E I.
M E D I C A L A N D S U B O R D I N A T E S T A F F.

OFFICE.	NAME AND QUALIFICATIONS.	REMARKS.
A. MEDICAL STAFF.		
Principal Medical Officer ...	J. Innes Moir, M.B., Ch.B., D.P.H.	
Medical Officer ...	H. Glyn Edmunds, L.M.S.S.A.	Appointed 22/5/31.
B. NURSING STAFF.		
Matron ...	Miss M. Cooper, C.M.B.	
Nursing Sister ...	Miss M. L. Reeve, C.M.B.	
Junior Nurses ...	Miss G. Reive Mrs. E. Smith.	On study leave. Appointed 15/4/31.
Probationers ...	Miss R. Harvey Miss E. Berntsen.	Appointed 9/2/31.
C. DENTAL STAFF.		
Dental Surgeon ...	S. W. Harding, L.D.S., (R.C.S.I.)	Appointed 9/11/31.
Dental Mechanic ...	J. Turner	
D. SANITARY STAFF.		
Sanitary Inspector ...	S. H. Hooley	Chief Constable.
E. CLERICAL STAFF.		
Clerk (Part-time) ...	L. W. Aldridge	

T A B L E I I.
M e t e o r o l o g i c a l R e t u r n s f o r t h e y e a r 1 9 2 9.

S T A N L E Y.

Latitude 51° 41' 45" S. Longitude 57° 51' 25" W.

MONTH.	TEMPERATURE.			RAINFALL. Amount in inches.	WINDS.	
	Maximum.	Minimum.	Mean.		General Direction.	Mean Force.
January ...	65°F.	33°F.	49.0°F.	2.61	W.	3.6
February ...	62	32	47.0	2.56	W.S.W.	4.4
March ...	64	32	48.0	3.04	W.	4.5
April ...	58	30	44.0	3.37	W.	3.5
May ...	49	24	37.0	1.98	W.N.W.	3.8
June ...	47	24	35.0	2.92	W.	5.0
July ...	45	18	32.0	1.74	W.	4.1
August ...	50	25	37.0	1.39	W.	4.2
September ...	52	13	32.0	2.47	N.W.	5.3
October ...	56	27	41.0	1.44	W.	4.9
November ...	61	26	42.0	2.27	S.	4.3
December ...	64	31	47.0	2.15	S.W.	4.7
	65	13	40.9	27.94	—	4.3

TABLE III.
RETURN OF IN-PATIENTS TREATED AT THE HOSPITAL
DURING 1931.

SURGICAL OPERATIONS.				MALES.	FEMALES.
Appendicectomy	...	...	...	10	17
Periostitis of Tibia	...	...	...	1	—
Resection of Head of 1st Metatarsal	...	...	...	—	1
Osteomyelitis of Femur	...	...	...	—	1
Herniotomy	...	...	...	1	—
Tonsillectomy	...	...	...	2	2
Tonsillectomy and Removal of Uvula	...	...	...	1	—
Laparotomy	...	...	...	—	1
Herniotomy and Fixation of Undescended Testicle	...	...	...	1	—
Lipoma of Shoulder, Removal	...	...	...	—	1
Amputation of Thumb	...	...	...	1	—
Circumcision	...	...	...	1	—
Venous Cyst, Removal of	...	...	...	—	1
Paracentesis Antrum of Highmore	...	...	...	—	1
				18	25
				18	25
SURGICAL CASES.					
Cut Throat, Suicidal	...	...	...	1	—
Cellulitis of Hand	...	...	...	—	1
Fracture of Ribs and Clavicle	...	...	...	1	—
Fracture of Ribs and Dislocation index finger	...	...	...	1	—
Fracture of Ribs	...	...	...	1	—
Conjunctivitis	...	...	...	1	—
Otitis Media	...	...	...	1	—
Mastitis	...	...	...	—	1
Contusion of Ankle Joint	...	...	...	1	—
Dislocation of Elbow	...	...	...	1	—
Fracture of Tibia and Fibula	...	...	...	1	—
				9	2
				9	2
MEDICAL CASES.					
Diabetes Mellitus	...	...	...	1	2
Tabes Mesenterica	...	...	...	—	1
Tuberculous Laryngitis	...	...	...	1	—
Anaemia	...	...	...	—	1
Duodenal Ulcer	...	...	...	2	—
Gastric Ulcer	...	...	...	—	1
Valvular Disease of Heart	...	...	...	2	—
Paroxysmal Tachycardia	...	...	...	1	—
Melancholia	...	...	...	—	1
Observation	...	...	...	2	1
Inanition	...	...	...	—	1
Hepatitis and Hyperpiesia	...	...	...	—	1
Tonsillitis	...	...	...	—	1
Pyo-nephritis	...	...	...	1	—
				10	10
				10	10

MATERNITY AND GYNAECOLOGICAL.

Maternity	...	...	...	...	...	23
Curettage	...	...	...	...	...	1
Abortion c Curettage	...	...	...	...	...	1
Endometritis	...	...	...	...	...	1
Abortion	...	...	...	...	...	1
						<hr/> 27 <hr/>

DENTAL.

				MALES.	FEMALES.
Dental Cases	...	...	...	35	37
Total Admissions	...	...	...	173.	

APPENDIX I.

Dental Report.

Mr. James M. Coutts, L.D.S., left the Colony on transfer in July, 1931, and Mr. S. W. Harding, L.D.S., arrived in the Colony on 21st December, 1931. Therefore Mr. Harding is not in a position to submit a report on the Dental condition of the Colony. Altogether, 72 dental operations were performed under general anaesthesia during the year by the Dental Surgeon and Principal Medical Officer. After the departure of Mr. Coutts, under the supervision of the Principal Medical Officer and Medical Officer, the dental Mechanic carried out such temporary repairs etc., as were of immediate necessity.

Mr. Coutts was unable to visit the Camps in 1931, because of the absence of a Medical Officer, as he, Mr. Coutts, was required to give anaesthetics for operations in the King Edward VII Memorial Hospital. Mr. Coutts performed this additional duty with great efficiency.

In future the Dental Surgeon will visit the Camps at least twice a year, if possible.

APPENDIX II.

SCHOOL MEDICAL INSPECTION.

I. Name..... Date of Birth.....

II. Personal History

(a) Previous illnesses of child.

(b) Family Medical History. (if exceptional)

INSPECTION.	I.	II.	III.	IV.	V.
1. Date of Inspection					
2. Standard & regularity of attendance					
3. Age of child					
4. Vaccination					
III. GENERAL CONDITIONS.					
5. Height					
6. Weight					
7. Nutrition & development					
8. Cleanliness & clothing					
IV. SPECIAL CONDITIONS.					
9. Teeth					
10. Nose & throat Tonsils, Adenoids, Glands					
11. External eye Disease					
12. Vision					
13. Ear Disease					
14. Hearing					
15. Speech					
16. Mental Conditions					
V. DISEASE & DEFORMITY.					
17. Heart & Circulation					
18. Lungs					
19. Nervous System					
20. Tuberculosis					
21. Rickets					
22. Deformities, Spinal etc.					
23. Infectious or contagious disease					
24. Other Diseases or defects					
VI. OBSERVATIONS.					

M. O's Signature.....

APPENDIX III.

ANALYSIS OF STANLEY WATER.

From :- Messrs. Riley Harbord & Lane.

To :- The Crown Agents for the Colonies.

Date :- 12th January, 1925.

PORT STANLEY, FALKLAND ISLANDS.

The following are the results of our analysis of the sample of water received from you on the 31st December marked "Sample of Water from Mount William Stone Run".

	Grains per gallon.
Total Solids at 240°F	10.1
" " after ignition	6.4

ANALYSIS OF SOLIDS.

Silica	0.19				
Oxide of iron & alumina	0.32				
Lime	0.48	} Equal to.	{	Sodium Chloride	4.35
Magnesia	0.52			Potassium Sulphate	0.39
Sulphuric Acid	1.66			Calcium Sulphate	1.17
Chlorine	3.21			Magnesium "	0.60
Sodium	1.71			Magnesium Chloride	0.75
Potash	0.20				
Free Ammonia				0.0182	
Albuminoid Ammonia				0.0266	

Equivalent to

Free Ammonia parts per million or milligrams per litre	0.26
Albuminoid Ammonia " " " " " "	0.48
Degree of Hardness	2½

This is a very pure sample of water, the solid matter in solution being very low. The undesirable feature is the quantity of ammonia which indicates contamination by organic matter. It is impossible to indicate the derivation of this organic matter without knowing something of the conditions under which it had been collected and stored.

NOTE. The sample of water referred to was sent to England before the gathering ground was fenced off and before any filtering medium was used. The organic contamination indicated by the high Ammonia content was found to be due to carcasses of dead sheep, an accident which has been precluded from repetition through fencing. Since then a sample has been analysed in Capetown through the courtesy of the scientists of the R.R.S. "Discovery" and the water was reported to be of a very pure quality.