DEPARTMENT OF PROVINCIAL SECRETARY

FIFTH ANNUAL REPORT

OF

THE TRANQUILLE SANATORIUM

OF THE PROVINCE OF

BRITISH COLUMBIA

FOR THE

FISCAL YEAR ENDED MARCH 31ST, 1926

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by CHARLES F. BANFIELD, Printer to the King's Most Excellent Majesty.
1927.

PROVINCIAL LIBRARY,
VICTORIA, B. C.

To His Honour ROBERT RANDOLPH BRUCE,

Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned respectfully submits herewith the Annual Report of the Medical Superintendent of Tranquille Sanatorium for the fiscal year ended March 31st, 1926.

WILLIAM SLOAN,

Provincial Secretary.

Provincial Secretary's Office.

DEPARTMENT OF THE PROVINCIAL SECRETARY.

HON. WM. SLOAN, *Provincial Secretary.* J. L. WHITE, *Deputy Provincial Secretary.*

TRANQUILLE SANATORIUM STAFF.

Medical Staff:

A. D. LAPP, M.B., *Medical Superintendent.*

H. G. CHISHOLM, *Medical Assistant.* M. MCQUITTY, M.B., *Medical Assistant.*

R. B. BRUMMITT, M.B., *Medical Assistant.*

W. G. LOTHIAN, *Radiologist.* G. DARLING, *Laboratory Technician.*

G. J. CAMERON, *Dentist.* Miss M. HODGETTS, *Matron.*

Administrative Staff:

A. WHITECROSS, *Bursar.* Miss GORDON FORBES, *Clerk.*

A. N. LOW, *Steward.* J. R. MATHIESON, *Clerk of Works.*

Miss L. WRIGHT, *Dietition.* J. TREVORS, *Laundry Manager.*

G. T. WILLIAMS, *Chief Engineer.*

Chaplains:

Rev. DR. E. D. MCLAREN, *Protestant.* Rev. Father A. MADDEN, *Roman Catholic.*

Sanatorium Farm Staff:

D. W. STRACHAN, *Farm Superintendent.*

F. C. FISHER, *Book-keeper.*

Women's Building, Tranquille Sanatorium.

TRANQUILLE SANATORIUM.

REPORT OF THE MEDICAL SUPERINTENDENT.

TRANQUILLE, B.C., April 1st, 1926.

The Honourable William Sloan,
Provincial Secretary, Victoria, B.C.

SIR,—I have the honour to submit herewith the Fifth Annual Report of Tranquille Sanatorium, covering the fiscal year April 1st, 1925, to March 31st, 1926.

There were 147 admissions and 150 discharges. A total of 382 patients received treatment during the year. All these figures are lower than for previous years, due to more advanced cases, who require a longer period of treatment, being in residence, resulting in a much smaller turnover. The largest number in residence at any time was 237 and the average 224.

The percentage of advanced cases among those seeking admission remains very high. This is undoubtedly due, to a certain extent, to the shortage of beds at the Sanatorium and the long waiting-list of applicants. Naturally enough, physicians will not apply for early cases while they have advanced cases who appear to require treatment far more urgently awaiting admission. The fact that there are too few beds available, and that it is a long time before applicants can be admitted, is apt to make the physician feel that it is useless to apply unless the patient is very ill and urges him to do so.

Our results are in keeping with the class of cases in residence and cannot improve until we have accommodation for all seeking admission.

Some might question the advisability of taking advanced, hopeless cases into sanatorium, but the isolation is well worth the cost. This has been proven in many places. Actual cases can be cited where one person with advanced disease left in the home infected the whole family. The care of the first case costs the State nothing, but the remainder of the family have to be cared for at a cost several times what it would have been to isolate the one who was the source of the infection. Humanitarian reasons for admitting these cases, while they will not bear much weight with some, will undoubtedly appeal strongly to others.

DENTAL SERVICE.

This service has been more satisfactory for the past year than for any since it was established. We have had a full-time resident dentist and he has been able to keep the work up to date. The necessity for such a service in a sanatorium is now generally recognized, and it undoubtedly plays a very important part in the successful treatment of any chronic disease.

LABORATORY.

With better equipment and assistance our technician has been able to do a great deal more work than ever before. Our laboratory is now equipped to carry on research-work successfully, and a beginning was made at the end of the year along lines that will be reported on at some later date. We expect to extend this branch of the work considerably during the next year.

SURGICAL.

Surgical treatment of tuberculosis has been the means of saving many lives and also of shortening the period of treatment in numerous cases. At the beginning of the year there were thirty-two patients receiving artificial pneumothorax treatment. During the year this treatment was attempted in thirty-five, most of them being advanced cases. In thirteen of these no free pleural space could be found; in twenty-two, partial to fair collapse was obtained. Of these, three died during the year from progressive disease and the remainder showed good improvement. The total number of refills given during the year was 871.

Thoracoplasty was done on five patients during the year; of these, two died, the remainder getting good results. This makes a total of sixteen of our patients who have had the operation. On the whole the results have been very satisfactory. Phrenicotomy was performed on three patients as a separate measure. All our thoracoplasty patients now have a preliminary phrenicotomy.

Consulting surgeons were called to attend several other cases requiring surgical treatment.

X-RAY DEPARTMENT.

The X-ray is one of our most valuable aids in diagnosis and checking up progress. During the past year 452 pairs of stereoscopic films of chests and fifty-nine miscellaneous films were taken.

Dental films of the full mouth of all admissions, as well as many other dental films, were taken. The fleuroscope was used freely for gross findings in pneumothorax work, and in abdominal work with barium meals, etc. Eighty-one X-ray treatments were given.

The two quartz lamps have been in daily use; one in the women's building gave 1,825 treatments and the one in the infirmary 1,850 treatments.

As mentioned in the last report, much of our X-ray equipment is old and out of date. We can make it do for another year, but modern equipment should be installed at the end of that time.

LAUNDRY.

The average number of pieces turned out by the laundry was over 31,000 per month. There was a large increase in the amount of work as compared with the previous year. This was mostly flat-work and was due to the increased number of advanced cases in residence. Our last wooden washer was replaced by a metal one. We plan on installing a twin-press at an early date, and this will be of great assistance in the work of ironing. At the end of another year, at latest, a larger mangle should be added to the equipment. All linen and blankets not in actual use are in charge of the laundry manager, who also has charge of the sewing-room. We have found many advantages in this arrangement.

FINANCIAL.

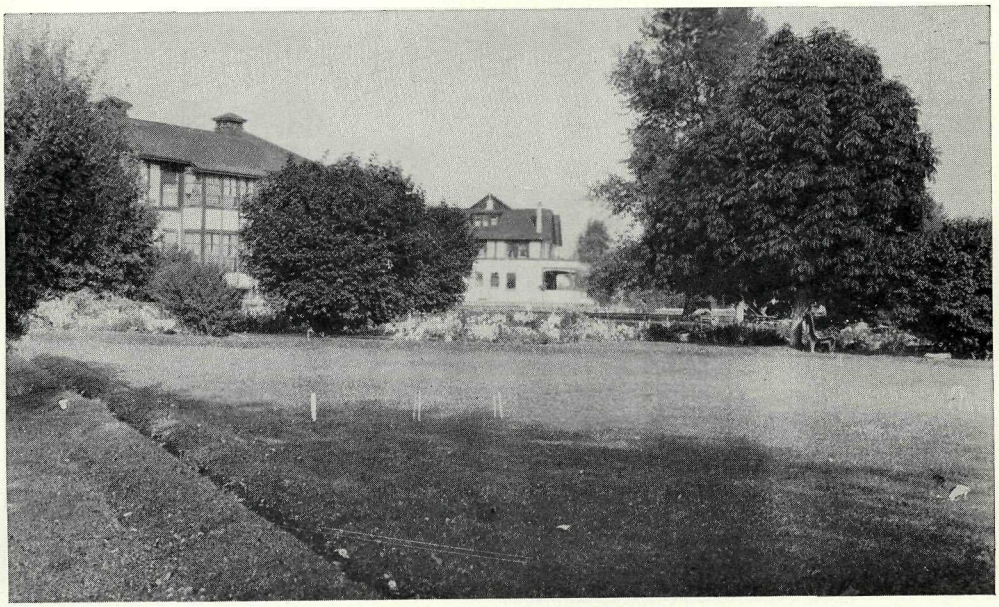
The gross *per capita* cost was lower this year than for any year since the Government took over the institution. There was a reduction of 12 cents per day as compared with last year. The net cost naturally becomes higher as our revenue falls off. There will be a marked decrease in revenue next year owing to the change in the "Hospital Act," which allows us to collect 70 cents per day from the municipalities as compared with $2.50 per day formerly charged. Owing to the construction and age of some of our buildings the charges for repairs will be high for several years.

SANATORIUM FARM.

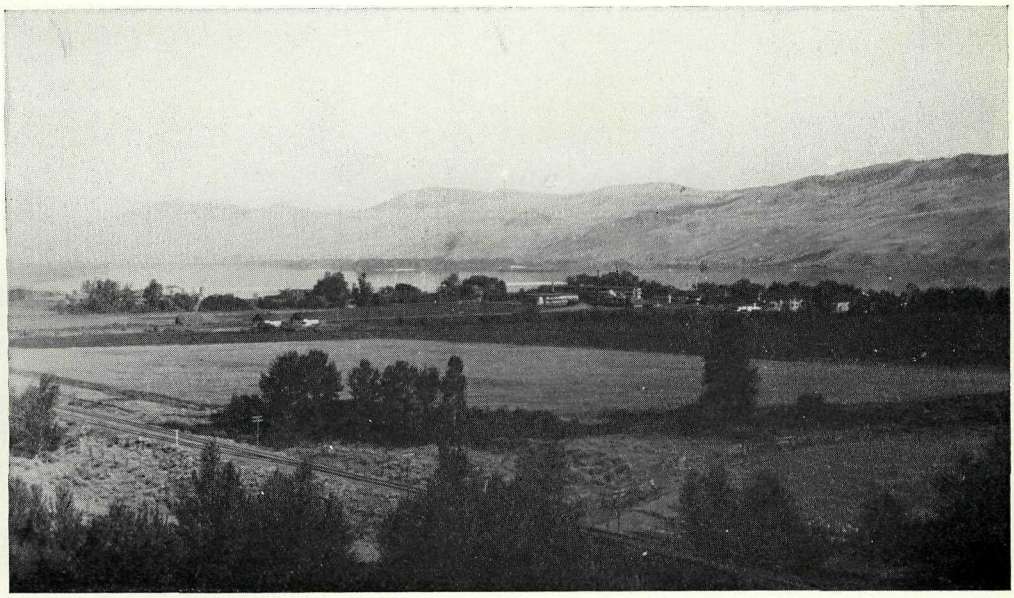
The Farm Superintendent's report shows a profit on operating. A good deal of money has been spent every year out of the operating account for such improvements as fencing, ditching, making dams, restoring worked-out land, etc. The farm is invaluable to the Sanatorium, chiefly as the source of our milk-supply. The public expects the farm to have the appearance of a model farm and at the same time to show a profit. As it is operated on a strictly cash basis, and the Sanatorium pays current market prices for its produce, it takes very careful and capable management to be able to do this. The Superintendent is to be congratulated on his financial report.

BUILDING OPERATIONS.

No new buildings were erected at the Sanatorium, but a calf-barn adjoining the dairy-barn was built at the farm. Preparations are being made to build a residence for female employees early in the next year. This has been recommended in previous reports. We also expect that a gravity water system from Tranquille Creek will be installed during the coming year. The bake-shop was enlarged, allowing the baker to carry out his duties much more satisfactorily. The chief capital expenditure on buildings was the tearing-out and renewing of all lath and plaster in the west wing of the women's building, which was in an unsightly condition. This is now the finest and most comfortable building we have.



A corner of the Sanatorium grounds.



General view of buildings, with a portion of the farm.

RECOMMENDATIONS.

The disposal of sewage has been unsatisfactory for some time, and I would strongly recommend that the laying of a trunk sewer be proceeded with as soon as the new water system is installed.

We have found that it is difficult to secure single tradesmen who are satisfactory and have them remain for more than a short time. I would recommend the consideration of erecting suitable apartments where married men could be housed with their families.

The need for a properly constructed assembly-hall with a basement fitted up as a gymnasium for male employees should be kept in mind. The room being used as an assembly-hall at present is not half large enough and cannot be properly ventilated.

The most urgent need is for increased accommodation for patients. Our infirmaries are taxed to the limit all the time and there is a long waiting-list for admissions. This increased accommodation should be designed to care for early cases and others who would improve rapidly under a strict regime. It should be an infirmary building of a hundred-bed capacity; this would enable us to take in all cases applying for admission and at the same time to segregate the different types with improved results.

Many have the idea that our patients are mostly people who have drifted into the Province; it might not be amiss to say here that this is not so. There are very few who have not been residents of the Province for several years. Those whose place of residence is given as outside of British Columbia are cases who are receiving treatment under an agreement with the Department of Soldiers' Civil Re-establishment.

ACKNOWLEDGMENTS.

I wish to thank those who made donations of money and various articles for Christmas. The Kamloops branch of the Red Cross made a generous donation in the form of subscriptions to a long list of periodicals. Their visiting committee made regular visits, which were much appreciated by the patients. To the Red Cross we extend our hearty thanks.

Various organizations provided a large number of entertainments on the lawns and in the assembly-hall. These are always a source of much pleasure to our patients. Motor-rides provided by some of the clubs also helped to relieve the monotony of Sanatorium routine. We wish to express our appreciation to all who have in any way contributed to those diversions.

The "Tranquillian" made a donation of a radio set, and an installation including head-sets for every bed. It also included a microphone, and the necessary equipment for local broadcasting, which makes it possible for every patient to hear all local entertainments and church services. Arrangements were made whereby any concert in Kamloops can be sent over the telephone and reach every patient through our radio installation. This donation is one which has been a benefit to every patient and is appreciated by all.

I wish to thank the chaplains and visiting clergymen who have ministered to the spiritual needs of this community.

To the consulting surgeons I wish to tender my cordial thanks.

I wish to acknowledge the splendid co-operation of my assistant physicians and of all the members of the staff of the Sanatorium during the work of the past year.

To yourself and to all members of the Department I wish to express my appreciation of the support and assistance which has been granted me.

I have the honour to be,
Sir,
Your obedient servant,

A. D. LAPP,
Medical Superintendent.

STATISTICAL TABLES.

TABLE NO. 1—GENERAL STATISTICS FOR YEAR 1925–26.

	Civil.	Military.	Female.	Total.
Number of patients in Sanatorium, March 31st, 1925	125	39	71	235
Number of patients admitted, 1925–1926	69	31	47	147
Number of patients discharged, 1925–26	72	33	45	150
Number of patients treated, 1925–26	194	70	118	382
Number of patients in Sanatorium, March 31st, 1926	122	37	73	232

TABLE NO. 2.—CLASSIFICATION OF 147 CASES ADMITTED TO SANATORIUM DURING YEAR 1925–26.

	Civil.	Military.	Female.	Total.	Percentage.
Incipient or minimal	9	1	4	14	9.523
Moderately advanced	16	7	10	33	22.45
Far advanced	39	21	28	88	59.86
Miscellaneous	5	2	5	12	8.16
Totals	69	31	47	147	99.99

TABLE NO. 2A.—CLASSIFICATION OF 12 CASES ADMITTED AS MISCELLANEOUS.

T.B. suspects	2
Silicosis	2
Lung-abscess	1
Bronchiectasis	2
Pott's disease	2
Chronic bronchitis	1
Pleurisy	1
T.B. peritonitis	1
Total	12

TABLE NO. 3.—SHOWING CIVIL STATE OF PATIENTS ADMITTED FROM APRIL 1ST, 1925, TO MARCH 31ST, 1926.

Civil State.	Male.	Female.	Total.
Married	40	22	62
Single	60	25	85
Divorced	.....	.....	.....
Widowed	.....	.....	.....
Totals	100	47	147

TABLE NO. 4.—SHOWING RELIGIOUS DENOMINATIONS OF PATIENTS ADMITTED FROM APRIL 1ST, 1925, TO MARCH 31ST, 1926.

Religious Denominations.	Male.	Female.	Total.
Buddhist	1	....	1
Brahmin	....	1	1
Greek Catholic	2	....	2
Lutheran	4	4	8
Protestant	73	35	108
Non-sectarian	1	....	1
Roman Catholic	18	7	25
Serbian	1	....	1
Totals	100	47	147

TABLE NO. 5.—SHOWING THE NATIONALITY OF THOSE ADMITTED FROM APRIL 1ST, 1925, TO MARCH 31ST, 1926.

Nationality.	Male.	Female.	Total.
Australian	....	1	1
American	4	3	7
Bohemia	....	1	1
Canadian	42	19	61
Denmark	2	....	2
East Indian	....	1	1
England	21	14	35
Finland	1	....	1
Greece	1	....	1
Germany	1	....	1
Ireland	8	2	10
Italy	....	1	1
Norway	....	2	2
Scotland	13	1	14
Slovak	1	....	1
Sweden	3	2	5
Serbia	1	....	1
Wales	2	....	2
Totals	100	47	147

TABLE NO. 6.—SHOWING WHAT DISTRICTS CONTRIBUTED PATIENTS FROM APRIL 1ST, 1925, TO MARCH 31ST, 1926.

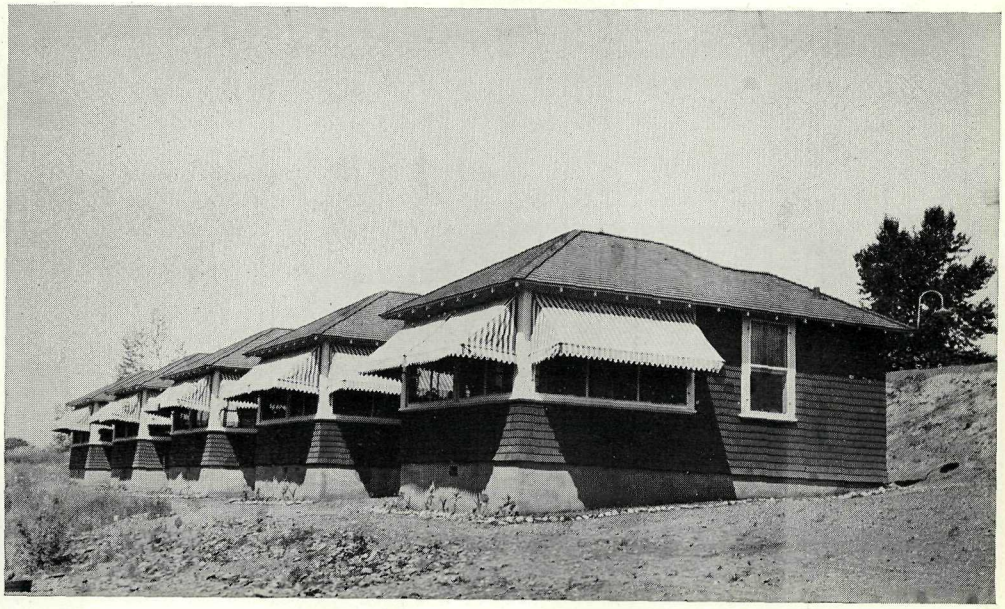
Place of Residence.	Male.	Female.	Total.
Alberni	1	....	1
Armstrong	1	....	1
Blue River	....	1	1
Blind Bay	....	1	1
Burnaby	1	....	1
Barriere	1	....	1
Cranbrook	1	....	1
Cloverdale	....	1	1
Cortes Island	1	....	1
Chase	1	....	1
Chilliwack	1	....	1
Creston	1	1	2
Duncan	....	1	1
Dewdney	....	3	3
Enderby	2	....	2
Ewing's Landing	1	....	1
Grand Forks	....	3	3
Kamloops	9	3	12
Ladner	1	....	1
Ladysmith	1	....	1
Mount Olie	1	....	1
Nova Scotia	1	....	1
Nelson	1	....	1
New Westminster	1	2	3
Nanaimo	3	1	4
Newfoundland	1	....	1
Ocean Falls	....	1	1
Prospect Lake	....	1	1
Prince Rupert	2	1	3
Penticton	2	....	2
Ontario	1	....	1
Quebec	1	....	1
Qu'Appelle	1	....	1
Robins Range	....	1	1
Swift Creek	1	....	1
Sweden	1	....	1
Trail	2	1	3
Tranquille	2	1	3

TABLE NO. 6.—SHOWING WHAT DISTRICTS CONTRIBUTED PATIENTS—*Continued.*

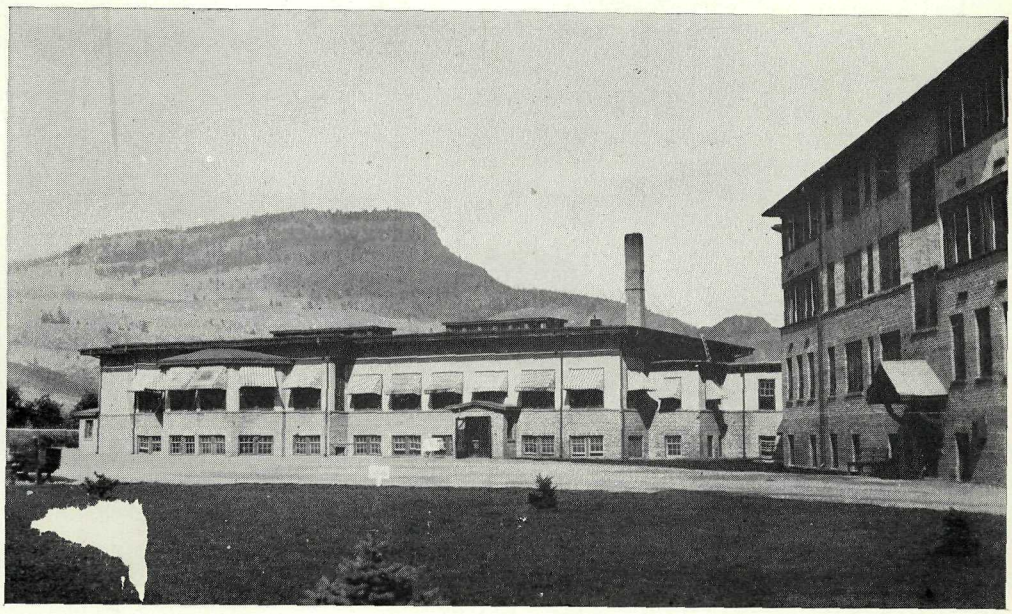
Place of Residence.	Male.	Female.	Total.
Toronto	1	....	1
United States	1	....	1
Union Bay	....	1	1
Vernon	2	....	2
Victoria	5	....	5
Vancouver	39	18	57
Vancouver, North	3	1	4
Vancouver, South	5	1	6
Waneta	....	1	1
Wellington	....	2	2
Totals	100	47	147

TABLE NO. 7.—SHOWING THE OCCUPATIONS OF THOSE ADMITTED FROM APRIL 1ST, 1925, TO MARCH 31ST, 1926.

Occupations.	Male.	Female.	Total.
Accountant	1	....	1
At home	6	2	8
Barrister	2	....	2
Barber	3	....	3
Cobbler	1	....	1
Cook	1	....	1
Carpenter	2	....	2
Clerk	7	....	7
Dentist	1	....	1
Dressmaker	....	1	1
Funeral director	1	....	1
Farmer	10	....	10
Forestry	2	....	2
Fireman	1	....	1
Engineer	3	....	3
Grocer	1	....	1
Housewife	....	21	21
Longshoreman	1	....	1
Lithographer	1	....	1
Labourer	7	....	7
Lumberman	3	....	3
Millman	1	....	1
Musician	2	....	2
Mechanic	1	....	1
Motorman	1	....	1
Metallurgist	1	....	1
Miner	6	....	6
Nurse	....	6	6
Photographer	1	....	1
Painter	1	....	1
Policeman	1	....	1
Priest	1	....	1
Plumber	1	....	1
Radiologist	1	....	1
Rancher	1	....	1
Surveyor	1	....	1
Stone-cutter	1	....	1
School-children	6	7	13
Salesman	7	1	8
Student	2	....	2
Stenographer	....	3	3
Sailor	4	....	4
Tailoress	....	1	1
Taxi-driver	2	....	2
Usher	....	1	1
Waiter	3	1	4
X-ray technician	1	....	1
Totals	100	47	147



New type of cure cottage to replace pavilion accommodation for ambulant cases.



Service Building.

TABLE NO. 8.—SHOWING THE AGES OF THOSE ADMITTED FROM APRIL 1ST, 1925, TO MARCH 31ST, 1926.

	Male.	Female.
Under 15 years	4	3
15 to 20 „	3	6
21 „ 25 „	13	9
26 „ 30 „	13	11
31 „ 35 „	19	10
36 „ 40 „	17	5
41 „ 45 „	13	1
46 „ 50 „	10	1
51 „ 55 „	6	....
56 „ 60 „	2	....
61 „ 65 „	....	1
66 „ 70 „	....	....
Over 70 „	....	....
Totals	100	47

TABLE NO. 9.—SHOWING ADMISSIONS, DISCHARGES, AND DEATHS FROM APRIL 1ST, 1925, TO MARCH 31ST, 1926.

	Admissions.			Discharges.			Deaths.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1925.									
April	11	6	17	14	5	19	2	2	4
May	15	3	18	13	10	23	2	4	6
June	9	10	19	14	3	17	1	1	2
July	7	1	8	8	4	12	3	....	3
August	12	4	16	7	3	10	1	1	2
September	15	1	16	3	....	3	1	1	2
October	3	3	6	3	....	3	2	1	3
November	5	4	9	7	....	7	2	....	2
December	5	8	13	1	....	1	....	1	1
1926.									
January	7	1	8	5	....	5	1	1	2
February	4	2	6	3	2	5	....	....	....
March	7	4	11	10	4	14	2	2	4
Totals	100	47	147	88	31	119	17	14	31

TABLE NO. 10.—SHOWING CLASSIFICATION OF 150 DISCHARGES DURING 1925–26.

Classification on Admission.	Results.					
	Apparently arrested.	Quiescent.	Improved.	Unimproved.	Died.	Total.
Incipient	12	6	2	2	....	22
Moderately advanced	....	27	5	2	3	37
Far advanced	....	28	8	17	27	80
Non-pulmonary tuberculosis	1	1	3	5	1	11
Totals	13	62	18	26	31	150

TABLE NO. 11.—SHOWING CLASSIFICATION OF 11 NON-PULMONARY TUBERCULOSIS CASES.

	Male.	Female.
T.B. adenitis and intestinal deratitis	1	....
Pott's disease of the spine	1	....
Sarcoma	1	....
Bronchiectasis	2	....
Pleurisy	2	....
T.B. suspect	1	....
Chronic bronchitis	1	....
Psychasthenia	....	1
Cardiac asthma	1	....
Totals	10	1

TABLE NO. 12.—SHOWING CAUSES OF 31 DEATHS.

	Male.	Female.	Total.
General exhaustion	14	9	23
Spontaneous pneumothorax	....	1	1
Tubercular meningitis	2	1	3
T.B. enteritis and peritonitis	....	1	1
Following operation for thoracoplasty	....	2	2
Hæmorrhage	1	....	1
Totals	17	14	31

Daily average population	224
Per cent. of discharge on admissions (not including deaths)	80.95
Per cent. of fair recoveries on admissions	40.13
Per cent. of deaths on whole number under treatment	8.11
Total number of patient-days	81,775

DENTAL REPORT.

The Medical Superintendent,
Tranquille Sanatorium, Tranquille, B.C.

SIR,—I have the honour to submit the following statement of work completed in the Dental Clinic of this institution during the year ended March 31st, 1926:—

Previous to this year the work in the Clinic was carried on by men who were either visiting dentists or who were on part-time work. This year saw the first resident dentist installed on full time, with his work confined entirely to patients. This arrangement has made it possible for the work to be carried on more satisfactorily from the standpoint of the patients, as well as that of the administrative staff.

The removal of all foci of infection is the principal object of the Clinic, and in connection with this subject it might be well to add that, as complete X-ray examinations are available to all patients, it has been found that approximately 80 per cent. of the patients admitted to this institution during the past year are suffering from infections of the mouth, usually apical infections.

It has been my experience that infections in the mouths of tuberculous patients extend rapidly; that a quiescent abscess or granuloma will become active in numerous cases; and that the eradication of apical infections by treatment, other than the surgical removal of the tooth, is not advisable, as in all these cases the patients' vitality has been lowered considerably and is not able to throw off additional infections.

Where masticating surfaces have been lost, either through extensive decay or infections which have necessitated extraction, it has been the aim of the Clinic to restore these mouths to

a normal condition, as far as mastication is concerned, by the installation of either complete or partial dentures.

To the staff may I tend my sincere thanks for the considerate assistance I received from them throughout the past year.

Following is a statement of the work completed in the Clinic for the patients:—

Fillings	752
Extractions	371
Dentures	94
Dentures, rebases	8
Dentures, repairs	21
Inlays (gold)	6
Bridges	8
Devitalizations	12
Treatments	213
Pyorrhœa	69
Prophylaxis	172

I have, etc.,

G. J. CAMERON,

Dentist.

LABORATORY REPORT.

Sputum.—The old method of sputum examination, preparing a direct smear, oftentimes selected at random from a container smeared with infectious material, was superseded this year by a method recently introduced in a number of public health laboratories. The sputum is received into a glass bottle containing 10 c.c. carbolic acid 5 per cent., and passed through an electrical shaker for twenty minutes. All hard particles, mucoid material, and stringy masses are so reduced to an even homogeneous mixture generally providing an equal distribution of bacilli. A smear is then prepared in the usual way. The advantages of this routine are twofold—the sputum rendered sterile ensures protection to the technician, and greater facility for demonstrating the tubercle bacillus is afforded.

The number of concentrated sputum tests have not been segregated. Our experience has taught that when tubercle bacilli are found in a concentrated specimen they are invariably shown in direct smear examined with care. A high percentage of patients in this institution have positive sputum as shown by the following analysis:—

Patients in residence, March 31st, 1926, 232. Of this number, 186, or 80.1 per cent., gave the organism in their sputum, 60 of whom have become negative since admission; 46, or 19.8 per cent., have never had tubercle bacilli demonstrated. Of 35 artificial pneumothorax cases with positive sputum, 14 became negative in the course of this treatment.

Urine.—If microscopic examination of urine reveals pus, smears of centrifugated sediment are stained and examined for tubercle bacilli. In the presence of acid-fast organisms where doubt exists as to the real nature of the bacillus, a guinea-pig is inoculated to eliminate the possibility of *B. smegma*. Two patients have thus been diagnosed with positive tubercle bacilli who have no evidence of symptoms of the kidneys or urinary tract; one of these has persistently had a negative sputum. Five cases in all show *B. tuberculosis* in the urine. One only has positive symptoms; three without; and one, at autopsy, no lesion could be found. Renal functional tests are performed when indicated.

Blood.—An epitome of 200 tests by the Wassermann reaction covering a period of two years has afforded some valuable information regarding the presence of syphilis in tuberculosis. Literature on this subject conveys the impression that the above condition commonly prevails. Vedder, in a series of tests at the Fort Baynard Army Hospital, found 23.28 per cent. of 229 tuberculous patients reacted positively to the Wassermann test, a result which he claims coincides with findings by Letulle, Bergeson, and Lapine, of Paris. The latter estimates that one out of every five tuberculous patients are luetic. Craig, conducting an examination of 116 patients with tuberculosis, found 10 per cent. with a positive reaction in addition to 6 per cent. known to be syphilitic, a total of 16 per cent.

At Tranquille Sanatorium the serum was separated from the blood, sealed and forwarded to the laboratories of the Vancouver General Hospital, where the test was completed. Of the 200 tests performed, only three were positive, or 1.5 per cent., and of this number one later proved to be a false positive, as revealed at autopsy. This case, with far advanced tuberculosis, never had positive sputum, but post-mortem examination demonstrated typical tuberculosis of all organs confirmed by sections from lung, liver, spleen, and kidney. If we disregard the false positive, 1 per cent. of 200 tuberculous patients at this institution react positively to the Wassermann reaction, as compared with Vedder's 23.28 per cent., Letulle's 20 per cent., and Craig's 16 per cent.

The Kahn precipitin test for the diagnosis of syphilis in many quarters has replaced the Wassermann reaction and has received official recognition by the United States Navy. The technique is so simplified that the possibility of error is minimized and the results 98 per cent. accurate. As a routine measure Kahn precipitin test has lately been introduced in this Laboratory and will be done in conjunction with the Wassermann reaction. A comparison of results will subsequently be made.

Blood-counts.—A résumé of 110 complete blood-counts on the tuberculous has shown average normal findings. The blood picture in uncomplicated tuberculosis is without pathological significance, lymphocytes being slightly affected. In advanced cases a mild anæmia is frequently encountered, and cases with complications a moderate leukocytosis is common, leukocytes numbering 12,000 to 15,000.

Autopsies.—Whenever possible post-morten examinations have been performed. Pathological conditions found have been compared with physical, laboratory, and X-ray findings.

GENERAL WORK DONE IN THE LABORATORY.

Material examined.	April, 1925.	May.	June.	July.	August.	September.	October.	November.	December.	January, 1926.	February.	March.	Total.
Sputum	50	90	106	99	71	127	74	56	134	56	65	119	1,047
T.B. positive	30	34	56	66	31	78	30	35	73	30	39	58	560
T.B. negative	20	56	50	33	40	49	44	21	61	26	26	61	487
Plural fluid	....	....	....	....	2	....	....	....	....	2	....	....	4
T.B. positive	....	....	....	....	2	....	....	....	....	1	....	....	3
T.B. negative	....	....	....	....	....	....	....	....	....	1	....	....	1
Pus (urine)	....	2	1	2	2	1	2	12	5	4	14	3	48
T.B. positive	....	1	....	....	1	....	1	5	2	....	3	1	14
T.B. negative	....	1	1	2	1	1	1	7	3	4	11	2	34
Urinalysis	51	93	118	67	79	118	59	240	19	17	234	17	1,112
Renal funct. test	....	....	....	....	1	7	....	1	....	1	....	....	10
Blood-counts—													
Brythrocytes	6	27	....	4	....	6	1	1	....	....	1	4	50
Leukocytes	6	27	....	4	....	6	2	2	....	....	3	4	54
Hæmoglobin	6	27	....	4	....	6	2	1	....	....	1	4	51
Differential	6	27	....	4	....	6	2	2	....	....	3	4	54
Wassermann reaction	4	8	7	4	8	8	7	5	8	12	4	13	88
Kahn precipitin test	....	....	....	....	....	....	....	....	....	8	3	14	25
Cerebrospinal fluid	....	....	....	2	2	....	1	....	....	....	....	1	6
Animal inoculation	....	....	3	....	....	....	1	3	2	4	3	1	17
Guinea-pig autopsy	....	....	....	3	....	....	....	1	5	2	4	3	18
Autopsies	....	....	....	1	1	1	2	....	1	....	....	1	7
Milk butter-fat	....	....	....	....	....	....	6	2	1	....	3	....	12
Baterial counts	....	....	....	....	....	....	2	5	1	....	....	....	8
Cultures	....	....	4	3	3	....	3	....	....	4	3	....	20
Vaccines	....	....	1	1	....	1	3	1	....	3	....	....	10
Miscellaneous	....	....	2	2	2	....	1	....	....	2	1	1	11

METEOROLOGICAL REPORT.

SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR YEAR ENDED MARCH 31ST, 1926.

Month.	Maximum Temp.	Minimum Temp.	Average Temp.	Average Humidity.	Snow.	Rain.	Sunshine.
1925.	Deg. F.	Deg. F.	Deg. F.		Inches.	Inches.	Hours.
April	77.0	33.0	51.03	56.00	.....	0.49	191.8
May	86.0	33.0	61.11	52.00	.....	0.27	280.6
June	98.0	42.0	66.73	56.80	.....	0.75	225.2
July	94.0	51.0	74.11	50.50	.....	0.23	315.2
August	92.0	44.0	66.56	58.40	.....	1.06	228.1
September	77.0	35.0	57.03	67.40	.....	0.72	178.6
October	64.0	25.0	43.89	.....	1.50	0.20	161.2
November	60.0	18.0	37.37	.....	.....	0.10	101.6
December	53.0	26.0	36.79	.....	8.25	0.80	18.2
1926.							
January	44.0	18.0	30.27	.....	15.00	.....	23.7
February	60.0	20.0	38.34	.....	.....	.....	62.4
March	71.0	23.0	44.79	66.27	.....	.....	194.9

BURSAR'S REPORT.

TRANQUILLE, B.C., January 7th, 1927.

The Medical Superintendent,
Tranquille Sanatorium, Tranquille, B.C.

SIR,—I have the honour to submit herewith the Balance-sheets and the Profit and Loss Accounts covering the fiscal year ended March 31st, 1926.

On examination of our operating accounts and tables submitted it is to be noted that we show a decrease in our gross *per capita* cost, which is lower this year than in any of the preceding four years. This is due largely to the increasing demand for beds at all times. Our summer population, which is usually low, has shown a marked increase over any previous year, and this is a large factor in keeping down the *per capita* cost, as the decrease in number of patients has never been large enough to allow a cutting-down of our overhead.

The net *per capita* cost shows a slight increase over last year owing to a falling-off of our revenue. The collections from the Department of Soldiers' Civil Re-establishment have decreased somewhat from last year, also our municipal and donation accounts, although our receipts from private patients show an increase.

It is to be regretted, from the financial as well as from the humanitarian view-point, that it is impossible to get more patients in the incipient stages of disease than we do, as the cost of the maintenance of the advanced case is so very much higher than that of the incipient case. The departments chiefly affected by the advanced condition of the patients are salaries, provisions, medical and surgical supplies, which show an increase in expenditure. However, the increases in the above-mentioned departments are more than offset by reductions in the operating costs of the remainder of our departments, as we show a decrease in the total expenditures amounting to $6,369.45.

The gross cost of maintenance for the year amounted to $293,980.72, and our revenue for the period was $84,809.76, which with 81,775 days' treatment being given makes our gross *per capita* $3.59 and our net *per capita* $2.56.

The Occupational Therapy classes are still being fully taken advantage of, as will be noted by a glance at Table G, where it will be seen that 156 patients have taken part in the work carried on. This is an increase of forty over last year.

For comparative purposes, I have included in my report a number of tables which give a summary of our financial operations. In these will be found our expenditures analysed under the different headings, both as to total expenditures and *per capita* cost.

I again wish to thank you for the valuable support you have given me in my work, also to my staff I wish to express my appreciation of the faithful and efficient services rendered.

I have, etc.,

A. WHITECROSS,
Bursar.

TRANQUILLE SANATORIUM.

BALANCE-SHEET, MARCH 31ST, 1926.

Assets.

Land	$ 4,943 14
Buildings	354,054 83
Plant and equipment	71,095 39
Furniture and fixtures	15,442 93
Inventories	12,008 06
Treasury advance (for petty expenses)	1,000 00
Accounts receivable	3,502 50
	$462,046 85
Deficit (cost of operations, 1925–26)	209,180 96
	$671,227 81

Liabilities.

Government of British Columbia	$671,227 81

PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Depreciation—		
Buildings	$ 18,634 46	
Plant and equipment	3,741 86	
Furniture and fixtures	812 78	
Salaries	107,464 34	
Office supplies	2,008 04	
Travelling and transportation	1,811 63	
Fuel, water, light, and power	42,541 98	
Maintenance and repairs	15,368 15	
Furniture and fixtures	1,481 87	
Provisions	88,020 94	
Medical and surgical supplies	7,770 12	
Incidentals and unforeseen	4,324 55	
By Donations		$ 1,000 00
Receipts from maintenance of patients		83,799 76
Balance		209,180 96
	$293,980 72	$293,980 72

EXPENSE AND REVENUE STATEMENT FOR YEAR ENDED MARCH 31ST, 1926.

Operating Expense Accounts.

Expenditure by voucher (less amounts credited to vote for supplies sold)—		
Salaries—		
Medical and clerical staff	$ 13,047 84	
Sundry employees	94,416 50	
		$107,464 34
Office supplies—		
Books and journals	$ 107 49	
Postage and office supplies	1,365 27	
Telephone and telegraph	274 83	
		1,747 59
Travelling and transportation		2,077 96
Fuel, water, light, and power—		
Fuel	$ 33,029 49	
Power-house supplies	13,526 11	
		46,555 60
Maintenance and repairs—		
Repairs and renewals	$ 11,892 13	
Janitors' supplies	4,483 59	
		16,375 72
Furniture and fixtures—		
Bedding	$ 2,568 39	
Furniture and fixtures	623 26	
		3,196 87
Provisions—		
Groceries	$ 35,263 74	
Meats	19,932 79	
Fish	2,157 53	
Milk and eggs	31,882 11	
		89,236 17
Medical and surgical supplies—		
Medicines and drugs	$ 3,681 39	
X-ray and miscellaneous	4,923 31	
		8,604 70
Incidentals and unforeseen—		
Laundry	$ 2,580 97	
Freight and cartage	1,374 50	
Sundries	748 06	
Clothing	1,206 75	
		5,910 28
Total operating expense by voucher		$281,169 23
Inventories as at March 31st, 1925—		
Office supplies	$ 676 43	
Travelling and transportation	208 41	
Fuel, water, light, and power	3,143 68	
Maintenance and repairs	2,879 46	
Provisions	2,300 57	
Medical and surgical supplies	569 52	
Incidentals and unforeseen	128 51	
		9,906 58
Depreciation written off—		
Buildings	$ 18,634 46	
Plant and equipment	3,741 86	
Furniture and fixtures	812 78	
		23,189 10
Carried forward		$314,264 91

EXPENSE AND REVENUE STATEMENT—*Continued.*

Operating Expense Accounts—Continued.

Brought forward		$314,264 91
Less inventories as at March 31st, 1926—		
Office supplies	$ 415 98	
Travelling and transportation	174 74	
Fuel, water, light, and power	3,569 27	
Maintenance and repairs	3,887 03	
Furniture and fixtures	1,715 00	
Provisions	1,696 09	
Medical and surgical supplies	459 10	
Incidentals and unforeseen	90 85	
		12,008 06
		$302,256 85
Less equipment transferred to Asset Account		5,312 53
		$296,944 32
Less sundry collections—		
Provisions	$ 1,819 71	
Maintenance and repairs	321 64	
Incidentals and unforeseen	51 75	
Medical and surgical	470 50	
Travelling and transportation	300 00	
		2,963 60
Gross cost of maintenance for year		$293,980 72

Revenue.

By Donations	$ 1,000 00	
Receipts from Department of S.C.R.	33,981 51	
Receipts from municipalities	36,732 50	
Receipts from private patients	11,085 75	
		84,809 76
Net cost of operations for year ended March 31st, 1926		$209,180 96

SUMMARY OF PROFIT AND LOSS ACCOUNT.

			Yearly *Per Capita.*
Depreciation		$ 23,189 10	$ 103 53
Salaries		107,464 34	479 75
Office supplies		2,008 04	8 97
Travelling and transportation		1,811 63	8 09
Fuel, water, light, and power		42,541 98	189 92
Maintenance and repairs		15,368 15	68 62
Furniture and fixtures		1,481 87	6 62
Provisions		88,020 94	392 98
Medical and surgical		7,770 12	34 68
Incidentals and unforeseen		4,324 55	19 31
		$293,980 72	$1,312 44
Less donations	$ 1,000 00		
„ revenue (maintenance)	83,809 76		
		84,809 76	378 62
Net cost to Government for maintenance of patients		$209,180 96	$ 933 82

Patients' dining-room at Christmas.

Christmas at the farm boarding-house.

Remarks.

Number of patients in residence, March 31st, 1926	232
Daily average population for year ended March 31st, 1926	224
Gross maintenance *per capita* cost, 1 year	$1,312.44
Gross maintenance *per capita* cost, 1 day	3.59
Net maintenance *per capita* cost, 1 year	933.82
Net maintenance *per capita* cost, 1 day	2.56

Capital Expenditures.

Cure cottages	$ 60 00
Fire-apparatus shed	265 00
Bakery	500 00
Main building	6,956 70
Female boarding-house	266 38
Hydro-electric plant	125 00
Heating plant	100 00
Salaries (Clerk of Works, etc.)	1,200 00

FINANCIAL TABLES.

TABLE A.—SHOWING THE AVERAGE NUMBER OF PATIENTS IN RESIDENCE EACH YEAR, THE TOTAL AMOUNTS SPENT FOR MAINTENANCE, AND THE GROSS PER CAPITA COST.

Year.	Average Number in Residence.	Maintenance Expenses.	*Per Capita* Cost.
1921–22	190.04	$271,730 08	$1,429 85
1922–23	194.46	284,019 31	1,460 55
1923–24	207.15	312,065 72	1,506 46
1924–25	221.21	300,350 00	1,357 75
1925–26	224.00	293,980 72	1,312 44

TABLE B.—SHOWING ANALYSIS OF GROSS PER CAPITA COST.

Year.	Insurance.	Salaries.	Office Supplies.	Travelling and Transportation.	Fuel, Light, Water, and Power.	Maintenance and Repairs.	Furniture and Fixtures.	Provisions.	Medical and Surgical Supplies.	Incidentals and Unforeseen.	Total Gross.
1921–22	$ 16 96	$439 59	$9 01	$20 56	$225 14	$138 43	$57 79	$421 96	$28 37	$72 06	$1,429 85
1922–23	12 49	482 22	8 09	11 32	232 81	133 03	66 89	472 17	13 07	28 46	1,460 55
1923–24	119 81*	479 85	7 46	9 42	243 48	85 77	13 70	441 26	39 95	65 76	1,506 46
1924–25	116 77*	467 52	6 01	11 93	211 11	70 55	25 78	288 86	26 17	33 05	1,357 75
1925–26	103 53*	479 75	8 97	8 09	189 92	68 62	6 62	392 98	34 68	19 31	1,312 44

* Depreciation.

TABLE C.—SHOWING GROSS EXPENDITURES IN PROFIT AND LOSS ACCOUNTS ANALYSED UNDER ITS DIFFERENT HEADINGS.

Year.	Insurance.	Salaries.	Office Supplies.	Travelling and Transportation.	Fuel, Water, Light, and Power.	Maintenance and Repairs.	Furniture and Fixtures.	Provisions.	Medical and Surgical Expenses.	Incidentals and Unforeseen.	Totals.
1921–22	$ 3,222 69	$ 83,537 76	$1,713 14	$3,906 79	$42,785 73	$26,306 16	$10,982 78	$80,189 90	$5,391 16	$13,693 07	$271,730 08
1922–23	2,428 62	93,772 68	1,572 35	2,202 06	45,272 71	25,868 26	13,008 74	91,817 67	2,541 89	5,534 33	284,019 31
1923–24	24,819 26*	99,400 17	1,545 66	1,952 17	50,436 74	17,767 20	2,837 67	91,407 31	8,276 71	13,662 83	312,065 72
1924–25	25,832 65*	103,420 23	1,329 97	2,639 11	46,700 05	15,607 78	5,702 59	86,016 60	5,788 98	7,312 21	300,350 17
1925–26	23,189 10*	107,464 34	2,008 04	1,811 63	42,541 98	15,368 15	1,481 87	88,020 94	7,770 12	4,324 35	293,980 72

* Depreciation.

TABLE D.—SHOWING SUMMARY OF OPERATIONS WITH REFERENCE TO PER CAPITA COST.

Year.	Number of Patients treated.	Average Population.	Total Patient-days.	Revenue from Maintenance of Patients.	Revenue from Donations.	Total Maintenance Expenses.	Gross Yearly *Per Capita.*	Net Yearly *Per Capita.*	Gross Daily *Per Capita.*	Net Daily *Per Capita.*
1921–22	389	190.04	69,365	$173,295 98	$ 8,200 00	$271,730 08	$1,429 85	$474 81	$3 91	$1 30
1922–23	372	194.46	70,978	145,701 68	4,200 00	284,019 31	1,460 55	689 69	4 00	1 89
1923–24	425	207.15	75,819	107,428 18	70,500 00	312,065 72	1,506 46	647 53	4 11	1 77
1924–25	407	221.21	80,753	98,311 08	2,000 00	300,350 17	1,357 75	904 29	3 71	2 47
1925–26	382	224.00	81,775	83,809 76	1,000 00	293,980 72	1,312 44	933 82	3 59	2 56

TABLE E.—SHOWING NUMBER OF DAYS' TREATMENT GIVEN EACH MONTH.

Year.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total for Year.
1921–22	6,102	6,059	5,439	5,359	5,680	5,160	5,547	5,641	6,078	6,405	5,809	6,086	69,365
1922–23	5,566	5,343	4,961	4,523	5,022	5,334	6,346	6,513	6,662	7,061	6,554	7,093	70,978
1923–24	6,548	6,329	5,740	5,567	5,981	5,786	6,191	6,527	6,543	6,600	6,703	7,304	75,819
1924–25	6,701	6,575	5,965	5,815	6,312	6,457	7,101	7,133	7,243	7,382	6,686	7,383	80,753
1925–26	6,982	6,982	6,638	6,543	6,182	6,581	6,951	6,714	7,002	7,269	6,592	7,319	81,775

TABLE F.—SHOWING LAUNDRY-WORK DONE.

Number of Pieces done from April 1st, 1921.

Year.	Flat-work.	Personal.	Total.
1921–22	159,393	123,875	283,268
1922–23	181,399	140,447	321,846
1923–24	196,011	147,060	343,071
1924–25	212,508	146,694	359,202
1925–26	230,653	145,438	376,091

Number of Pieces done during Year ended March 31st, 1926.

April	19,352	12,674	32,026
May	19,323	12,376	31,699
June	19,336	14,432	33,768
July	20,169	11,357	31,526
August	18,263	11,918	30,181
September	18,929	11,696	30,625
October	19,661	12,436	32,097
November	18,539	11,492	30,031
December	19,772	13,465	33,237
January	18,660	10,922	29,582
February	17,823	10,397	28,220
March	20,826	12,273	33,099
Totals for year	230,653	145,438	376,091
Average number of pieces per month	19,221	12,120	31,341

TABLE G.—SHOWING WORK COMPLETED BY PATIENTS IN OCCUPATIONAL THERAPY CLASSES DURING YEAR ENDED MARCH 31ST, 1926.

Reed-work—	
Trays—	
Size 10 by 16	46
Size 8 by 10	32
Size 14 by 20	35
Size 10 by 18	28
Brush and comb trays, 8 by 12	98
Pin-trays	95
Table-lamps	21
Dresser-lamps	14
Dresser-lamp shades	18
Sewing-baskets (lined)	22
Flower-vases	23
Flower-baskets	14
Picture-frames	46

TABLE G.—SHOWING WORK COMPLETED BY PATIENTS IN OCCUPATIONAL THERAPY CLASSES—*Continued.*

Pine-needle work—	
Baskets	76
Pin trays	18
Trays, 10 by 18	6
Fruit-dishes	8
Collar-boxes	6
Woodwork—	
Picture-frames	45
Inlaid trays	6
Card-tables	9
Writing-desks	2
Drawing-boards	3
Porch-chair	1
Ladies' jewel-cases	6
Cribbage-boards	12
Bead-work—	
Vanity-bags	80
Necklaces	16
Watch-fobs	6
Embroidery-work—	
Table-centres	6
Table-runners	5
Tray-centres	4
Passe-partout work—Passe-partout frames	276

NOTE.—During the year 130 male patients and twenty-six female patients were able to participate in and complete the above work.

FARM SUPERINTENDENT'S REPORT.

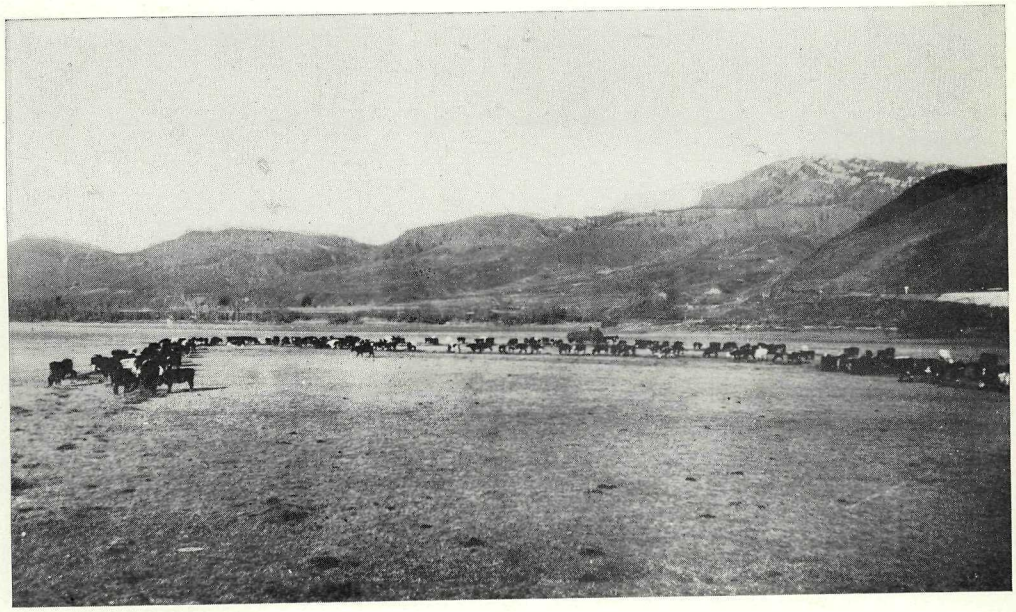
TRANQUILLE, B.C., March 31st, 1926.

The Medical Superintendent,
Tranquille Sanatorium, Tranquille, B.C.

SIR,—I beg to submit my report of operations of Tranquille Sanatorium Farm for the year ended March 31st, 1926.

The farm crops in nearly every department were above the average. The hay-crop was the biggest ever grown on the ranch. These good crops were due in part to the favourable season and in part to the preparation of the soil in labour and cultivation expended upon it. Credit must also be given to the hundreds of tons of manure that are yearly spread upon the land, as well as to the great amount of irrigation-water that is used upon the land during the spring and summer months. Fully 60 per cent. of the cultivated land on this ranch consists of a shallow layer of silt washed down from the Tranquille River. The subsoil consists of a very coarse gravel with a mixture of sand; it will be readily seen that such soil is very porous and requires an enormous amount of irrigation-water to keep the crops growing, especially during the very hot months of the growing season. It has been found that only a few acres of this gravelly land can be seeded down each year and given the proper amount of attention to secure a good "catch" of alfalfa. In order to secure a good stand of alfalfa the young crop must be watered regularly during the first year until late in the fall, or it will dry out, as the roots of alfalfa do not go down far enough the first year to withstand the excessive drought. Although we have an abundance of irrigation-water early in the season, it gets very short in the latter part of the growing season. Every effort is being made to secure an adequate supply during the entire growing season; this can only be done by building storage-dams. The Tranquille River has an enormous watershed tributary to it, and discharges into Kamloops Lake (Thompson River) 21,000 acre-feet between April 16th and September 15th. The very much larger portion

Range flock in winter feed lot.



Range herd in winter quarters.

of this water comes down as a freshet in the early spring and is valueless as regards irrigation. A few years ago we built a dam at the outlet of Tranquille Lake, which stored over 700 acre-feet. Since then three or four small lakes have been utilized, and last fall we built a 5-foot dam, on a body of water known as Sauls Lake, with a storage capacity of 375 acre-feet. Several other lakes are available and should be dammed as soon as time will permit, as the supply can all be used to good advantage. It should be pointed out that all this storage does not reach its intended destination—the field crops—due to the fact that the Tranquille River follows a very circuitous route through a very rough country, and the bed of the stream is beset with innumerable beaver-dams, swamps, meadows, and log-jams, which all retard and waste the storage-water.

The land under alfalfa gave a very good yield. Three crops were cut on all of it and four crops on some of it. The silage-crops, consisting of corn, and oats, peas, and vetch, were also good, although slightly less than last year, owing to the fact that less acreage was used for the crops. A fairly good crop of garden vegetables was also produced, also a goodly crop of potatoes, to supply the needs of the Sanatorium.

An experiment was made in the growing of broom-corn, with marked success. This crop matured well and a number of brooms were made from the straw by the broom-factory of the Canadian National Institute of the Blind, Vancouver. These brooms proved to be of good quality and gave excellent service. It is intended that a further experiment will be carried out next year for the purpose of finding out whether this commodity can be grown profitably in this locality or not. Enough seed has been saved from this crop to plant next year's acreage.

The apple-crop, which in ordinary years is only large enough to supply the needs of the ranch, was the poorest in many years; climatic conditions in the early part of the growing season being responsible for this failure.

Horses still continue to be the most unprofitable department of the live stock. Experts and leading authorities on this subject tell us that a cycle of better prices and greater demand will come in due course of time. In the meantime we are disposing of a few at going prices, weeding out the undesirables, and attempting to build up a better and more saleable type by the introduction and use of good sires. The yearling and 2-year-old colts are showing marked results in this respect. The colts sired by the thorough-bred stallion are all true to form and are likely-looking individuals that should develop into very desirable saddle-horses. The colts resulting from the Shire stallion crossed on the range mares are showing much heavier bone and greater size than their dams. These range horses are being kept at a minimum cost, as they run on the ranges all the year, only the weaned colts receiving special care and attention. The pure-bred Clydesdales produce a number of colts each year, and four of these have found a useful place among the work-horses of the farm.

The farm flock of sheep has produced a fair profit this year. The lamb and wool crop both brought good returns. Owing to the large amount of other live stock kept upon the farm, it has been found difficult to find a place and room for the sheep during the summer months, and it is intended to herd them on the ranges this coming summer with the view of ascertaining whether sheep can be handled profitably in conjunction with cattle on the open ranges.

Hogs still continue to hold first place as a profit-making department among the different lines of live-stock. Thirty-five to forty sows are kept and the most of these produce two litters per year. Tests and experiments have been made with different breeds of swine with varying results, but we have found that the pure-bred Berkshire of the thick-smooth type is best suited to our conditions. They do well on alfalfa pastures and develop and mature at an early age. Our good housing accommodation makes it possible to raise late fall and winter litters with good success. These winter litters usually mature at a time of the year when pork prices are at their highest and well repay the care expended upon them.

As suggested in last year's report, we went into the turkey business a little more extensively than ever before. Thirty-five turkey hens were kept for breeding purposes, with the result that over $1,400 worth of turkeys were raised, with a resulting profit of almost $900. While these young birds required considerable attention for the first six weeks of their existence, they practically fed themselves after that time, until the fattening period commenced, by running on the fields gathering grass, herbs, grasshoppers, and other insects. Four weeks before marketing these young birds were stuffed with wheat, corn, oats, and mashes.

The dairy herd is the most important branch on the ranch in point of production. This herd consists of eighty-five head, with an average of forty-five producing cows. An effort has always

been made to care for these cows in the most modern up-to-date manner, having ever in mind the commercial standard "to produce a high-grade first-quality product in the most economical manner." In other words, it is our aim to produce the greatest quantity of high-grade milk per cow consistent with profitable production. The cows after freshening are gradually given an increasing and balanced ration consisting of corn silage, second- and third-crop alfalfa-hay, mangels, and a meal mixture of ground oats, barley, bran, and oilcake. They are given all the corn silage they can eat, a few roots, 12 to 15 lb. of alfalfa, and a meal ration which is increased day by day so long as the animal will respond to it by way of greater production, but never exceeding in quantity more than 1 lb. of meal to 3 or 4 lb. of milk; this amount depending on the stage of the lactation period. No extensive experiments are carried on, but variations are made at times for the purpose of ascertaining what particular rations they respond to best.

Every effort is made to give the animals abundance of light and fresh air, as well as sufficient exercise in a good-sized paddock. The cows are never pastured, as it has been found after several convincing tests that it is more economical to cut the alfalfa as green food and haul it into the barn for them. They are also well groomed and the barn is kept sweet and clean and sanitary all the time. These conditions entail considerable labour and expense, but we have been well rewarded in the health of our cows, as is borne out by the fact that we have our cows tested twice a year for tuberculosis, and have never had a reactor in the herd for a great many years.

The dairy herd have given a good account of themselves this past year, having produced a total of 590,913 lb., of which the Sanatorium used 529,030 lb. "Mercena Molly Hengerveld," who received special mention in last year's report, is still keeping up her yearly production. Her last three yearly records are 17,105 lb., 18,375 lb., and 21,292 lb. of milk, and she will finish her present year with approximately 24,000 lb. of milk. She is due to freshen in less than two months after the close of her present year. "Alexandra Verona May" and "Excellency Hengerveld Echo" are two other cows that give promise of equalling "Mercena Molly Hengerveld" as heavy and persistent yearly producers. As a 2-year-old, "Excellency Hengerveld Echo," gave 17,884 lb. of milk and 707.5 lb. of butter, while "Alexandra Verona May" produced 20,791 lb. of milk and 843.7 lb. of butter as a 4-year-old.

The beef herd, consisting of 341 head, of which forty-three are pure-bred, came in last fall in very good shape, and wintered well owing to the very mild weather and good care given them. They are all out on the ranges now. Three new Hereford sires were purchased this spring, to be used on the range herd. The three animals are of exceptional type and quality and should do a great deal to improve the type of the herd.

I wish to take this opportunity to express my appreciation of the support and assistance afforded by you during the past year.

All of which is respectfully submitted.

D. W. STRACHAN,
Farm Superintendent.

LIST OF RECORD PERFORMANCES PRODUCED BY THE SANATORIUM FARM HERD FOR THE YEAR 1925–26.

Name.	Milk Production. Lb.	Butter. Lb.
Alexandra Birdie Rag Apple	14,443	615.00
Alexandra Dorothy Kelly Pontiac	12,555	563.75
Alexandra Korndyke Aaggie	22,081	958.75
Alexandra Birdie May	22,050	928.75
Alexandra Verona May	17,044	685.00
Balcomo Ormsby Linette	10,991	483.75
Balcomo Ormsby Maysie	14,704	643.75
Fairy Sylvia Echo	15,125	631.25
Johanna Buttergirl Pontiac	14,018	563.75
Julianna Korndyke Pontiac	17,136	780.00
Lady DeKol Clinker	14,529	700.00
Mercena Molly Hengerveld	21,292	812.50
Stella Korndyke Buttergirl	16,628	716.25
Uneeda Peach DeKol	15,858	587.50
Johanna DeKol Princess	15,627	629.50

SANATORIUM FARM REPORT.

TRANQUILLE, B.C., March 31st, 1926.

The Medical Superintendent,
Tranquille Sanatorium, Tranquille, B.C.

SIR,—I have the honour to submit herewith the Balance-sheet with the Profit and Loss Accounts for the year ended March 31st, 1926.

The farm again shows a profit on its operating account, which, although somewhat less than last year, is still quite a substantial sum.

The hay and field crops generally were heavy and show a good profit, fully justifying the heavy expenditures in bringing the land up to its present state of productivity. The live-stock departments have also been operated on a profitable basis, as shown by the accounts submitted.

The Sanatorium has been supplied with farm produce throughout the year, to the value of $27,254.40, in the following quantities: 529,030 lb. milk, 33,624 lb. beef, 77,800 lb. potatoes, 4,581 lb. pork, 1,236½ lb. mutton, 648 lb. turkey, 221½ lb. fowl, 339 lb. veal, and approximately 10 tons of vegetables from the truck-garden.

I have, etc.,
A. W. WHITECROSS,
Bursar.

TRANQUILLE SANATORIUM FARM.

BALANCE-SHEET, MARCH 31ST, 1926.

Assets.

Buildings and improvements		$101,820 61
Equipment Account		6,308 03
Land Account		70,405 88
Accounts receivable—		
Tranquille Sanatorium Account	$ 2,276 29	
Notes receivable	253 38	
		2,529 67
Dam Account		421 72
D. W. Strachan (petty cash advance)		1,000 00
Inventories (live stock)—		
Dairy herd	$15,945 00	
Bulls	525 00	
Range stock	14,125 00	
Sheep	4,380 00	
Horses	7,335 00	
Swine	2,394 00	
Turkeys and poultry	320 00	
One sheep-dog	30 00	
		45,054 00
Motor-vehicles		615 15
Unissued stores—		
Feed	$ 8,431 75	
Ice	120 00	
Coal	240 00	
Potatoes	700 00	
		9,491 75
Harness		622 50
Machinery and plant		2,673 50
Tools		419 35
Canadian Bank of Commerce (Stock Trading Account)		787 78
Deficit for year 1925–26		3,655 69
		$245,805 63

BALANCE-SHEET—*Continued.*

Liabilities.

D. W. Strachan (petty cash advance)		$ 1,000 00
D. W. Strachan (Stock Trading Account)		1,500 00
Capital Surplus Account		243,305 63
		$245,805 63

PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

To profit on live stock	$ 6,977 01	
Hide-sales	287 55	
Milk-sales	19,316 70	
Board Account	34 72	
Beef-sales	4,463 73	
Teaming	103 25	
Pork-sales	762 96	
Sundry farm produce	2,919 45	
		$ 34,865 37

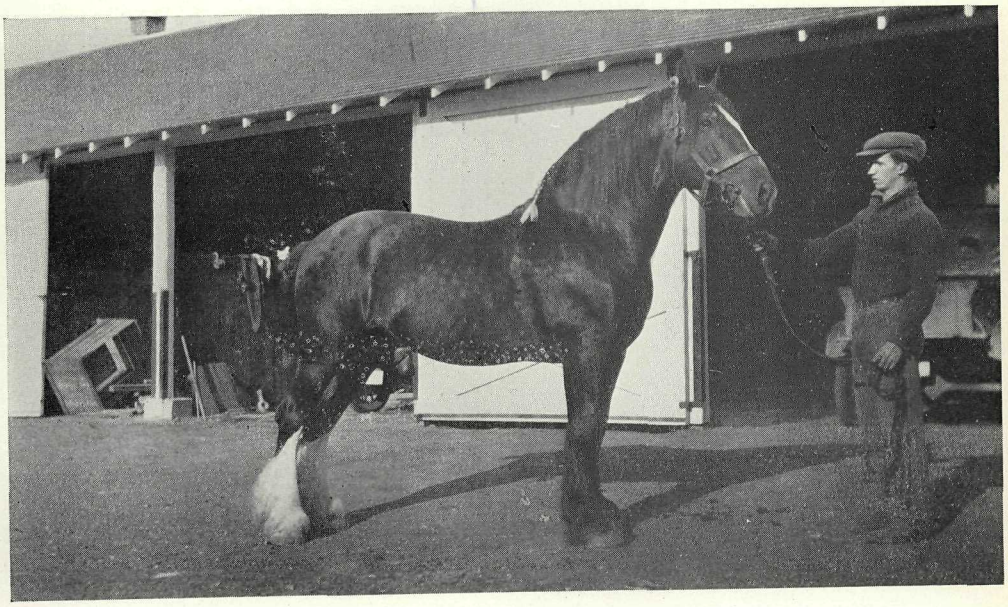
Expenditure.

Salaries	$12,556 52	
Feed	9,539 96	
Fuel, light, and water	2,012 08	
Provisions	2,806 95	
Blacksmith's supplies	57 86	
Seeds and fruit-boxes	236 31	
Drugs and veterinary	304 45	
Implements and harness	1,992 26	
Incidentals and contingencies	3,119 76	
		32,626 15
Profit on Operating Account		$ 2,239 22
Less depreciation—		
Depreciation on automobile	$ 205 05	
Depreciation on equipment	476 41	
Depreciation on farm buildings	5,213 45	
	$ 5,894 91	
Balance, being deficit for year 1925–26		3,655 69
	$ 5,894 91	$ 5,894 91

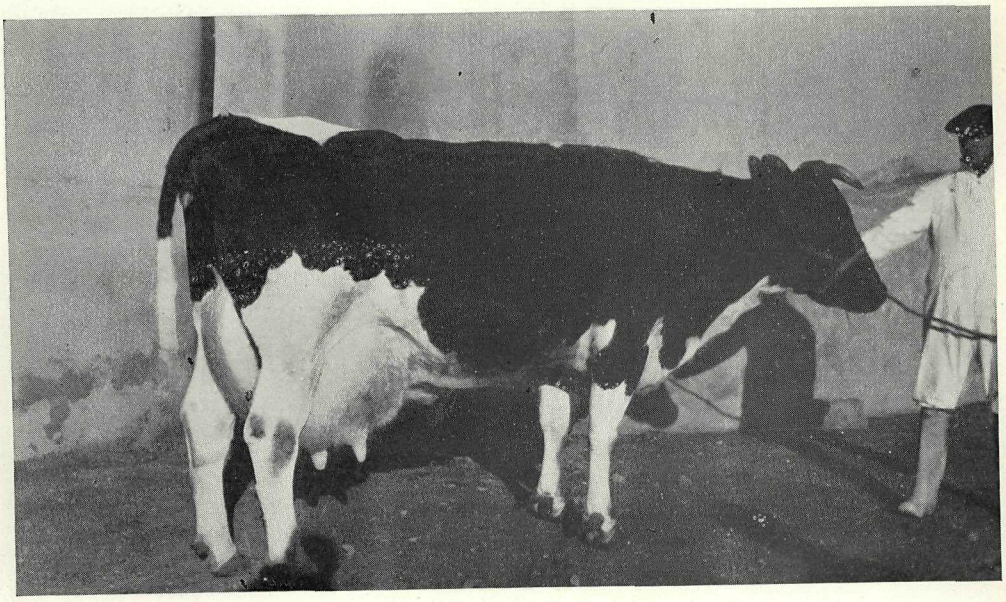
HAY—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Hay (alfalfa), beef, 70,000 lb.	$ 700 00	
Hay (swamp), beef cattle, 543,000 lb.	1,900 50	
Hay (alfalfa), horses, 323,000 lb.	2,422 50	
Hay (alfalfa), sheep, 21,500 lb.	215 00	
Hay (alfalfa), dairy, 422,000 lb.	4,220 00	
		$ 9,458 00
Carried forward		$ 9,458 00



"Wyomo George."



"Mercena Molley Hengerveld."

HAY—PROFIT AND LOSS ACCOUNT—*Continued.*

Brought forward		$ 9,458 00
Expenditure.		
Irrigation, wages	$ 510 00	
Cleaning ditches	150 00	
Ploughing, cultivating, working, etc.	155 00	
Cutting and stacking meadow-hay	1,050 00	
Irrigator's board	373 00	
Harvesting four crops hay	2,015 00	
		4,253 00
Profit, 1925–26		$ 5,205 00

SWINE—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Pork sold to Sanatorium	$ 762 96	
Sundry sales	3,740 88	
Pork sold to boarding-house	250 00	
Inventory, 1925–26	2,394 00	
		$ 7,147 84
Expenditure.		
Inventory, 1924–25	$ 2,330 00	
Labour, sundry employees	79 44	
Feed for stock	249 50	
Barley, 22,000 lb.	484 00	
Oats, 40,000 lb.	700 00	
Board of employees	225 00	
Wages	358 69	
Boars, purchase of	52 10	
		4,478 73
Profit, 1925–26		$ 2,669 11

SHEEP—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Mutton sold to Sanatorium	$ 333 62	
Wool sold	108 15	
Sold to boarding-house	12 00	
Inventory, 1925–26	1,417 11	
		$ 1,870 88
Expenditure.		
Inventory, 1924–25	$ 1,239 08	
Hay, 21,500 lb.	215 00	
Salaries	50 00	
Board, employees	47 00	
Sundry employees	15 00	
		1,566 08
Profit, 1925–26		$ 304 80

TURKEYS AND CHICKENS—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Turkeys sold to Sanatorium	$ 207 36	
Turkeys sold, sundry	745 47	
Inventory, 1925–26	157 50	
Chickens sold to Sanatorium	50 56	
Inventory, 1925–26	320 50	
Sold to boarding-house	18 30	
		$ 1,499 69

Expenditure.

Inventory, 1924–25	$ 166 50	
Expenses	55 08	
Feed	143 95	
Turkeys purchased	15 00	
Hens purchased	12 00	
Board, employees	95 00	
Wages, man for turkeys	89 93	
Wages, man for chickens	56 06	
		633 52
Profit, 1925–26		$ 866 17

SILAGE—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Inventory, 1925–26, 1,042,000 lb.	$ 2,605 00

Expenditure.

Seed-oats and peas	$ 76 50	
Irrigation	350 00	
Cultivating and weeding	123 00	
Employees, board	705 00	
Cutting, hauling, and siloing	1,234 77	
Seed-corn	28 75	
		2,518 02
Profit, 1925–26		$ 86 98

ORCHARD—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Inventory, 1925–26, 30 boxes	$ 30 00	
Sold to boarding-house, 30 boxes	30 00	
		$ 60 00

Expenditure.

Irrigation	$ 15 00	
Material, 50 boxes	10 00	
Labour, nails, etc.	2 00	
Picking and storing	6 00	
Pruning	14 50	
		47 50
Profit, 1925–26		$ 12 50

DAIRY CATTLE—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Milk supplied to Sanatorium	$19,204 10	
Sundry sales	23 10	
Cattle sold	428 55	
Milk supplied to boarding-house	638 75	
Manure	1,050 00	
Inventory, 1925–26	16,470 00	
		$ 37,814 50

Expenditure.

Inventory, 1924–25	$16,440 00	
Oats, 188,700 lb.	3,506 00	
Bran, 36,000 lb.	547 50	
Oilcake, 291,600 lb.	962 00	
Salt, 7,300 lb.	91 50	
Barley, 36,500 lb.	552 50	
Ensilage, 501,500 lb.	1,254 00	
Hay, 440,000 lb.	4,220 00	
Drugs and veterinary	181 00	
Teaming, 150 days	450 00	
Green feed, 450,000 lb.	1,125 00	
Light	583 00	
Water	287 00	
Wages	3,525 00	
Employees, board	2,281 25	
Bedding	375 00	
Sundries	374 54	
		36,755 29
Profit, 1925–26		$ 1,059 21

RANGE STOCK—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Beef sold to Sanatorium	$ 4,419 66	
Sundry sales	122 83	
Hides sold	287 55	
Manure	640 00	
Veal sold to Sanatorium	44 07	
Beef sold to boarding-house	1,383 90	
Inventory, 1925–26	15,975 00	
		$ 22,873 01

Expenditure.

Hay, alfalfa, 70,000 lb.	$ 700 00	
Hay, swamp, 543,000 lb.	1,900 50	
Sundry expenses	502 25	
Meal, 38,000 lb.	608 00	
Silage, 100,000 lb.	250 00	
Salt	35 00	
Wages	550 00	
Horse-labour	550 00	
Beef cattle bought	375 00	
Range leases	289 78	
Inventory, 1924–25	15,950 00	
		21,710 53
Profit, 1925–26		$ 1,162 48

POTATOES—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Sold to Sanatorium, 77,800 lb.	$ 1,376 75	
Supplied to boarding-house, 11,500 lb.	176 25	
Inventory, 1925–26	700 00	
		$ 2,253 00

Expenditure.

Seed, 9,600 lb.	$ 144 00	
Ploughing and harrowing	48 00	
Planting	160 00	
Weeding and cultivating	140 0	
Digging and storing	280 00	
		772 00
Profit, 1925–26		$ 1,481 00

TRUCK-GARDEN—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

Receipts.

Vegetables sold to Sanatorium	$ 855 32	
Vegetables supplied to boarding-house	211 00	
		$ 1,066 32

Expenditure.

Ploughing and harrowing	$ 105 00	
Weeding	95 00	
Salaries and wages	331 43	
Hoeing and irrigation	123 00	
Seeds	70 65	
Sundry expenses	53 63	
		778 71
Profit, 1925–26		$ 287 61

GROUNDS—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

To Expenses	$	50 39
Teaming		62 50
Labour		475 00
Employees, board		283 00
Shrubs		6 65
Loss, 1925–26	$	877 54

FENCING—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

To Salaries and wages	$	277 74
Team-labour		175 00
Material		30 00
Fencing expense		129 22
Employees, board		175 00
Loss, 1925–26	$	786 96

MAINTENANCE OF DITCHES—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

To Salaries	$	410 00
Board		230 00
Horse-labour		350 00
Material, lumber, gates, and flumes		150 00
Loss, 1925–26	$	1,140 00

MACHINERY AND AUTOMOBILE UPKEEP—PROFIT AND LOSS ACCOUNT, MARCH 31ST, 1926.

To Salaries	$	875 00
Employees, board		450 00
Sundry employees		58 30
Gasolene, automobile		104 00
Gasolene, farm engines		115 96
Depreciation, automobile		205 05
Depreciation on equipment		476 41
Loss, 1925–26	$	2,284 72

VICTORIA, B.C.:
Printed by CHARLES F. BANFIELD, Printer to the King's Most Excellent Majesty.
1927.

525-327-6820