

PROVINCE OF BRITISH COLUMBIA

Minister of Public Works

REPORT
FOR THE FISCAL YEAR
1957/58



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in right of the Province of British Columbia.

1959

Journal of Public Health

REPORT

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*To His Honour FRANK MACKENZIE ROSS, C.M.G., M.C., LL.D.,
Lieutenant-Governor of the Province of British Columbia.*

MAY IT PLEASE YOUR HONOUR:

Herewith I beg respectfully to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31st, 1958, in compliance with the provisions of the "Public Works Act."

W. N. CHANT,
Minister of Public Works.

*Office of the Minister of Public Works,
Parliament Buildings, October 9th, 1958.*

EARLIEST GOVERNMENT PRECINCT

Pictured below are the original legislative buildings (bird cages) built in 1859 on the present site. Governor Douglas observed in his letter of May 7th, 1859: "I have further to observe that no part of the expense of those buildings has been provided for by the House of Assembly, or out of any monies which have been raised by their means, the whole cost being in the first place provided for by the Hudsons Bay Company, and having ultimately to be borne by the Crown." (See text, page 47.)



The Land Office. The Legislative Council Court. The Colonial Office. The Supreme Court. The Treasury.

A SUGGESTED FUTURE GOVERNMENT PRECINCT

ESQUISSE FOR GOVERNMENT OFFICE PRECINCT JAMES BAY, VICTORIA



- | | |
|--|--|
| 1. Cultural Centre. | 14. Provincial Planning and Co-ordination. |
| 2. Bird Cage Walk. | 15. Queen's Printer. |
| 3. Attorney-General. | 16. Multi-story storage building. |
| 4. Provincial Secretary. | 17. Industrial Development, Trade, and Commerce. |
| 5. Parliament Buildings. | 18. Education. |
| 6. Museum. | 19. Municipal Affairs. |
| 7. Bird Cage (destroyed 1957). | 20. Highways. |
| 8. Helmcken House, Thunderbird Park. | 21. Public Works. |
| 9. Labour. | 22. Public Works Maintenance. |
| 10. Health and Welfare. | 23. Lands. |
| 11. Boiler-house. | 24. Forests. |
| 12. Agriculture, Mines, Railways, Recreation and Conservation. | 25. Civil Service Apartments. |
| 13. Finance. | |

FOREWORD

"We can only pay our debt to the past by putting the future in debt to ourselves."—Lord Tweedsmuir, May 12th, 1937.

*The Honourable W. N. Chant,
Minister of Public Works, Parliament Buildings,
Victoria, B.C.*

Sir,—The period covered by this Annual Report is from April, 1957, to April, 1958. My appointment to the post of Deputy Minister, Department of Public Works, was made during the latter half of July, 1958. I cannot, therefore, submit this as a report from myself in the full meaning of the word, but I have the honour, Sir, to present it on behalf of those members of your staff whose individual reports are embodied herein.

By the time this report is tendered by you to His Honour the Lieutenant-Governor the Centennial Year will have become part of the history it was designed to celebrate. Measured by other standards, 100 years is not a long period, historically speaking. Nevertheless, to us here in British Columbia, our Centenary has been full of meaning. Almost every community, large and small, has observed the year in some manner, and if the celebrations have done one thing more than any other, it is to make us conscious of the origins of our communities and of our Province. We now realize and appreciate, more than ever before, the hard work, the fortitude, the tenacity, and the courage of those who went before and built so well. They have set a standard and forged a tradition.

The history of this Province is also a history of Government. The original colonies of Vancouver's Island and British Columbia and the Territories of Stikine and Queen Charlotte Islands have become the vast area which is now modern British Columbia. Governments have made the decisions which so profoundly affected its progress. The names of Douglas, Fraser, Thompson, et al. have become household words. These, and many other, great figures emerged and played their powerful part. In support of them, and in company with them, has been the Civil Servant. From its early beginnings, until now, this Province has depended upon its Public Servants to carry out the policies set by Governments. More often than not it is done quietly and with little recognition. In their ranks these servants of the people number to-day, as they did in years gone by, and undoubtedly will do in the future, many highly qualified, competent, and loyal people.

Because of all the foregoing it would appear most appropriate that this Annual Report should take a somewhat different form from that of previous years. Some historical facts have been included, which we trust will be of interest. Regrettably, because of all considerations, including those of space and economy, we can only deal briefly with this aspect.

Included, also, to serve as an introduction, are the photographs and some biographical data of those division heads whose reports are included herein. Again it is regrettable we can show so few. The Public Works Department has, at the time of this writing, 632 employees. Each one of them will influence this Department's progress in some measure, small or great. Each one, be they in Administration, Construction and Maintenance, Structural Engineering, Architecture, Mechanical Engineering, Planning, or Electrical, Pressure, or Gas Inspection, will influence the progress of good government, and therefore of the Province. Each one of them merits recognition.

As this Centennial Year draws to its close I am confident every one of these employees would like you to know we realize the importance of our good stewardship. This must be honest and loyal. It must be sincere and diligent. Only by the exercise of these qualities can we serve the people of this Province well, serve and help each other as well as ourselves, wield the right influence in the affairs of this Province, and gain the satisfaction of a good job well done.

*A. E. WEBB,
Deputy Minister.*

EARLY PUBLIC WORKS REPORTS

Probably the first published Public Works Report was that for the year ended December 31st, 1888. However, the earliest one of particular significance was that for the year ended December 31st, 1892, submitted by the Chief Commissioner of Lands and Works.

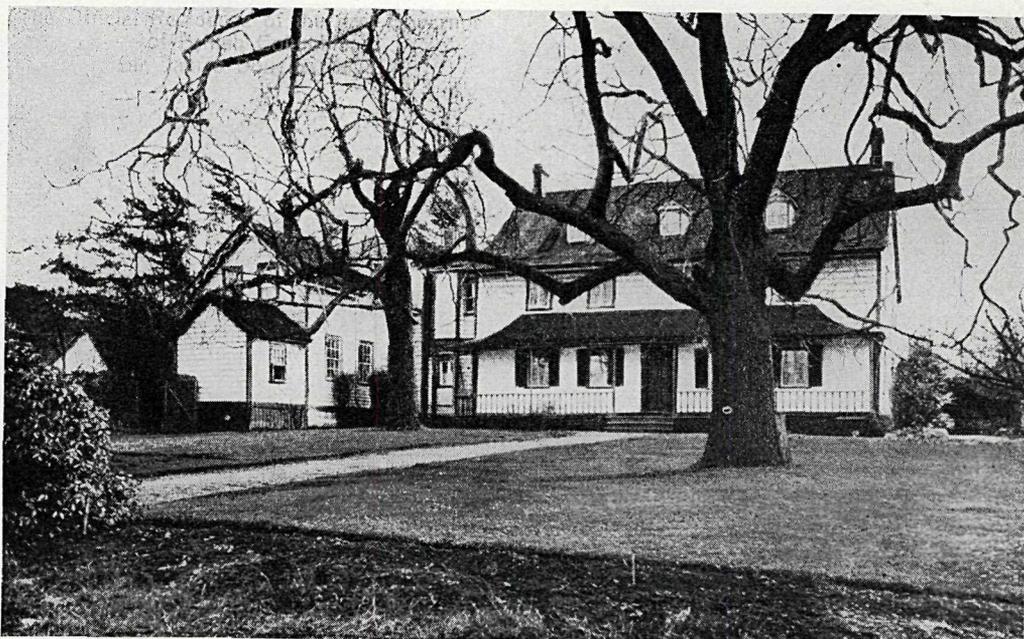
It was in this year that architects throughout the Dominion and the United States were invited to submit plans for the new Provincial Government Buildings in Victoria. It will be remembered that, under the *nom de plume* of "B.C. Architect," Mr. F. M. Rattenbury presented the winning designs.

For those interested in wage spirals, the guide to competing architects provided some revealing figures of the prices prevailing at that time. It was stated that the average wages of a carpenter, for instance, was "\$3.00 per day of nine hours."

The scope of the Department of Lands and Works in the last years of the nineteenth century encompassed road work, forest clearing, the issuance of timber licences for \$10 apiece, the erection of schools, new bridges, and new Government buildings. Contracts awarded for buildings, which were principally school rooms, during the fiscal year ended December 31st, 1892, amounted to approximately \$32,000.

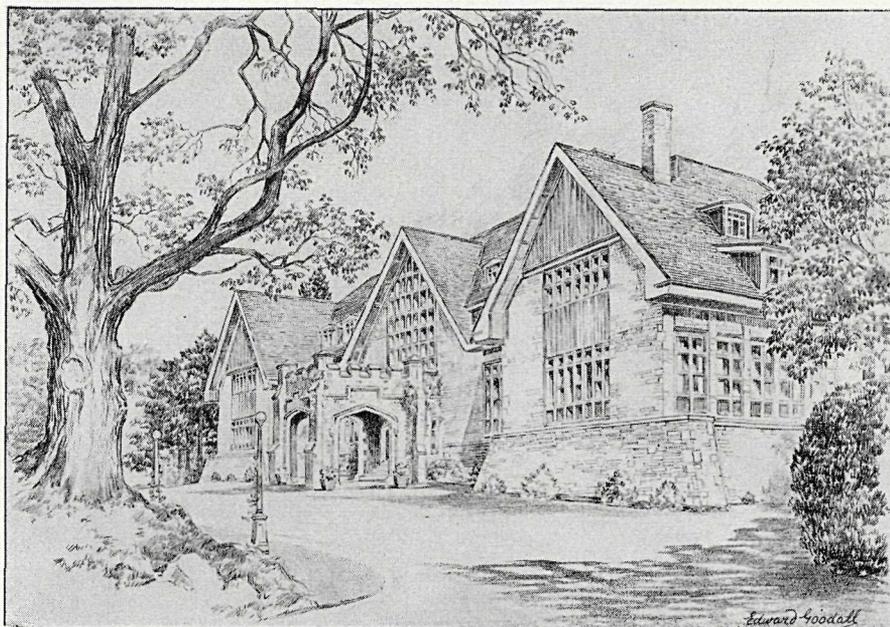
No records are readily available of the organization and staffing of the Department during this decade, but there is evidence that the services of outside architects were employed for many of the larger building projects.

OLD



British Columbia's earliest Government House was the residence of Sir James Douglas on Elliott Street, Victoria, built in 1859. The cherry-tree referred to opposite is seen on the extreme right of the picture above.

NEW



British Columbia's newest Government House is pictured above, as seen from an artist's sketch of the building when finished.

GOVERNMENT HOUSE

Any account of the New Government House would be incomplete without reference to the previous buildings, which provided a home to the many distinguished men who have served as a Governor or Lieutenant-Governor of this Province. To-day only a granite marker adjacent to an ancient cherry-tree remains to mark the site on which stood the earliest Government House occupied by Governor Sir James Douglas.

The present site on Rockland Avenue was purchased in 1865 and became the official residence of the first Lieutenant-Governor appointed on the entry of British Columbia into Confederation. The property on the site had been built by Attorney-General George Hunter Cary and was named Cary Castle. Despite protests of Lieutenant-Governors relating to its condition, and its modernization in 1882, this house served as an official residence until May 18th, 1889, when fire reduced the house to ashes. An interesting item salvaged was the Lieutenant-Governor's desk, which continued to be used by subsequent occupants of the office until it was destroyed in the fire of 1957. In 1904 a new Government House was completed, using British Columbia products throughout, which housed throughout its fifty-three years Royal and many other distinguished guests until fire sealed its fate on April 15th, 1957. The new structure consists of a four-storied reinforced-concrete structure, clad with granite and Haddington Island stone on the north face, and stucco, with cedar siding in fill panels on the less conspicuous exterior faces. A feature of the new design will be a 9- by 9-foot panel which houses the Provincial crest, located on the exterior face of the south end wall of the ballroom, approximately 340 feet above sea-level, which will be illuminated at night by flood-lights.

In contrast to the old building, a full basement is provided, and allows improved kitchen and cloakroom facilities to be obtained. From the basement area a dumb-waiter carries food to the dining-room service area above and also to second-floor suites. Entry to the main floor will be by way of the porte-cochère left standing from the last fire, the entrance hall being panelled and containing a large fireplace as a focal feature.

The east and west corridors lead directly to the reception rooms. The panelled areas are basically the same as that employed in the previous residence, with the addition of a cedar-panelled office for His Honour. The dining and drawing-rooms are situated on the south side and command an excellent view. Royal and vice-regal suites, besides guestrooms, are on the second floor, all main rooms taking full advantage of the view. Heating is fully automatic, with thermostatic control in main reception room and suites. Electrical and telephone services have been placed underground outside the building to eliminate unsightly poles.

Out of the ashes of three disastrous fires a new and beautiful edifice is rising to grace the landscape and mark the sky-line of British Columbia's capital city. Every possible precaution has been taken to eliminate or minimize hazards. Reminded constantly of the fate which overtook previous official residences, the Department is determined that every effort will be directed to making this a standing monument to British Columbia's Centennial Year.

—Stanley Lloyd, M.R.A.I.C., M.A.I.B.C., A.R.I.B.A.

REPORT OF THE CHIEF ARCHITECT

I have the honour to submit herewith my report for the fiscal year 1957/58, for which period I served in the capacity of Deputy Minister and Chief Architect.

During this year all branches and divisions of the Department functioned satisfactorily, and good progress was made in carrying out their various duties and responsibilities, which can be seen by studying the reports hereinafter contained.

This year saw the completion of several major projects, notably the British Columbia Correctional Institution at Haney, the 100-bed nurses' home and training centre at Essondale, and the new Provincial Government Building at Prince George.

Disastrous losses were suffered this year in the destruction by fire of two historic landmarks of the Province—the old "bird-cage" buildings were lost on March 27th, and Government House was completely destroyed on April 15th.

Instructions were given for the planning of a new Government House by this Department in May, and work was immediately put in hand. Construction was commenced in December, and the structural portion was well advanced by March. Every effort has been made to expedite completion of plans in order to have the building completed by the end of 1958.

Great credit is due to all members of the architectural and engineering branches for the way that they have tackled this particularly difficult and exacting task, and I am confident that the completed building will fully justify the efforts expended and remain a permanent credit to the Province and the Department.

A total of sixty-six building and mechanical projects were completed or undertaken during the fiscal year 1957/58, at a total expenditure of \$8,089,049.31.

Major Projects under Construction

| Project | Location | Percentage Completed | Building | Estimated Total Cost |
|---------|-----------------|----------------------|--|----------------------|
| 290-B | Victoria | 22 | New Government House | \$1,000,000.00 |
| 299-B | Burnaby | 25 | Vocational School | 900,000.00 |
| 5-B-65 | Essondale | 72 | Addition to boiler-house | 1,000,000.00 |
| 208-B | Burnaby | 99 | Girls' Industrial School | 1,400,000.00 |
| 5-B-53 | Essondale | 99 | 300-bed unit, Port Coquitlam | 1,900,000.00 |
| 5-B-101 | Essondale | 15 | New substation and overhead circuits | 230,000.00 |

In addition to the aforementioned projects, there are a number of larger projects which are in an advanced stage of planning and will be ready for tender early in the coming fiscal year. These are as follows:—

| Location | Project | Estimated Cost |
|--------------------|--|----------------|
| Essondale..... | Alterations to Administration Building, BISCO..... | \$75,000.00 |
| Essondale..... | Crease Clinic, new surgery wing..... | 370,000.00 |
| Essondale..... | Industrial therapy..... | 800,000.00 |
| Vancouver..... | 209-bed unit, Pearson Tuberculosis Hospital..... | 3,500,000.00 |
| Prince George..... | Addition to Men's Gaol..... | 500,000.00 |
| Dawson Creek..... | Office and core-storage shed..... | 75,000.00 |
| Kitimat..... | New Court-house..... | 980,000.00 |

CLIVE D. CAMPBELL, M.R.A.I.C., M.A.I.B.C.,
Chief Architect.



W. R. H. CURTIS, A.R.I.B.A., A.N.Z.I.A., M.R.A.I.C., M.A.I.B.C., A.A. DIPL.
Supervising Architect

Born in Auckland, New Zealand, Mr. Curtis attended London University in England. His professional education was obtained at the School of Architecture of the Architectural Association, London, England. He has membership in the following institutes: Royal Institute of British Architects, New Zealand Institute of Architects, Royal Architectural Institute of Canada, and Architectural Institute of British Columbia. He practised for eleven years with various firms of architects in England, the United States, New Zealand, and Canada, and spent six years in private practice in London and twelve years as an architect with the Provincial Public Works Department for British Columbia.

REPORT OF THE SUPERVISING ARCHITECT

Elsewhere in this Public Works Report are listed major projects completed, major projects under construction, and contracts awarded for buildings during the fiscal year 1957/58.

This report is primarily concerned with the internal operation of the Architectural Division of the Department, under the direction of the Deputy Minister and Chief Architect.

Staff was maintained throughout the year at a slightly lower numerical level than in the previous fiscal year. At the end of March, 1958, the Division employed six architects, six draughtsmen, two specification writers, one landscape architect, and one town planner. It is satisfactory to be able to report that the general level of good design and construction techniques was well maintained, and that staff worked with efficiency and loyalty.

Appropriately, some mention might be made concerning the most important planning work of the year—the new Government House. Though it could not be foreseen months earlier as a Centennial project, it is of interest to note that the new edifice is being constructed nearly 100 years from the date that George Hunter Cary, then Attorney-General of the colony, built his private residence on the same site.

The challenge of designing a new residence worthy of the purpose for which it is intended has proved a formidable one from the aspects of the exigent circumstances and public opinion. However, in the not too distant future it is believed that the new Government House will be acclaimed as a building which has ably maintained a flavour of the past, while benefiting from the present century's contributions to gracious living.

Construction of several of the larger projects planned during the fiscal year has not yet commenced. Among these might be mentioned the following: A new 209-bed unit for the Pearson Tuberculosis Hospital in Vancouver, a new Court-house and Government Offices at Kitimat, a new wing to the Crease Clinic at Essondale, and a new laboratory and offices for the Department of Mines at Dawson Creek.

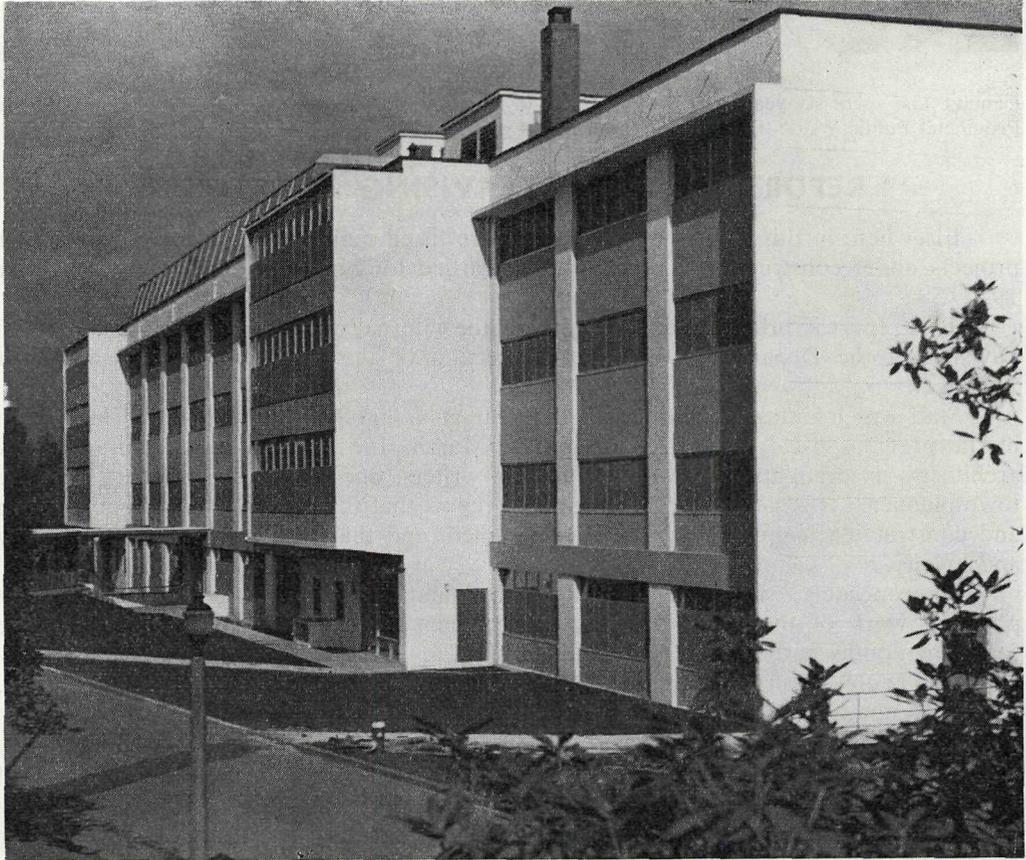
Other major projects planned during the fiscal year, and either now completed or under construction, are the random poultry test houses for the Department of Agriculture at Abbotsford and the first phase of the big projected development at Burnaby for the Vocational School for the Department of Education.

A brief mention should be made of the high degree of co-operation achieved with other Government departments in the early planning and co-ordination of new buildings. Similar mention is appropriate with regard to the effective liaison with the Purchasing Commission in the requisitioning of equipment and furnishings for new Government buildings.

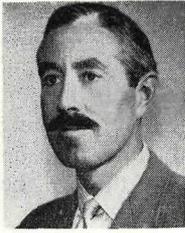
In summary, the fiscal year 1957/58 showed a diminution in volume of actual work put out to tender, but a year nevertheless achieving considerable satisfactory planning for future projects. With the potential growth of the Province of British

Columbia appearing almost without limit in the foreseeable future, the expansion of Government buildings to serve the public is inevitable.

W. R. H. CURTIS,
Supervising Architect.



The 300-bed unit at Port Coquitlam.



W. D. LOUGHER-GOODEY, M.T.P.I., M.T.P.I.C., F.I.L.A., A.I.STRUCT.E.
Architect-Planner

Born in England in 1913, Wilfred Davis Lougher-Goodey attended the Architectural Association, London (A.A. Diploma), and the Edinburgh University, Scotland (T.P. Diploma).

Before coming to Canada and joining the Department of Public Works in 1954, Mr. Lougher-Goodey was Senior Architect at Colchester, England; County Planning Officer, Londonderry, Northern Ireland; Senior Architect-Planner for the Government of Northern Ireland; and Group Leader for research work carried out for Edinburgh City Council and East Kilbride New Town. He has had twenty years' experience of municipal, regional, and central authority administration and government, negotiating with the general public, advising committees, and reporting to Legislature. A few of the projects for which he was responsible included development plans for Londonderry County Council, planning proposals for the City of Belfast (population, 750,000), and draft plans for neighbourhood units (population, 10,000).

REPORT OF THE ARCHITECT-PLANNER

This year's work has included such projects as the Civic Centre for Victoria (the first of its kind in Canada), executed in conjunction with the staff of the Capital Region Planning Board. The conception of this idea, and the draft plans, emanated from this office consequent upon the requirement of a new Court-house, together with other public buildings.

Master plans are in course of preparation for Victoria College.

Various layout plans have been prepared for individual sites, such as Prince George Court-house. Continuing schemes are the Legislative Precinct, Victoria, the Civic Centre, and Civil Service Parking in Victoria. Schemes pending are Jericho Hill School and Vancouver Vocational School, Burnaby.

I represented the Department at the National Planning Conference, Vancouver, at which scale models formed part of the main exhibition. I also represented the Department at the British Columbia Community Planning Association Conference at Nanaimo.

Constant touch is maintained, in day-to-day planning matters, with Town Planning Commissions, Capital Regional Planning Board, Municipal Councils, and the Regional Planning Office, Department of Municipal Affairs.

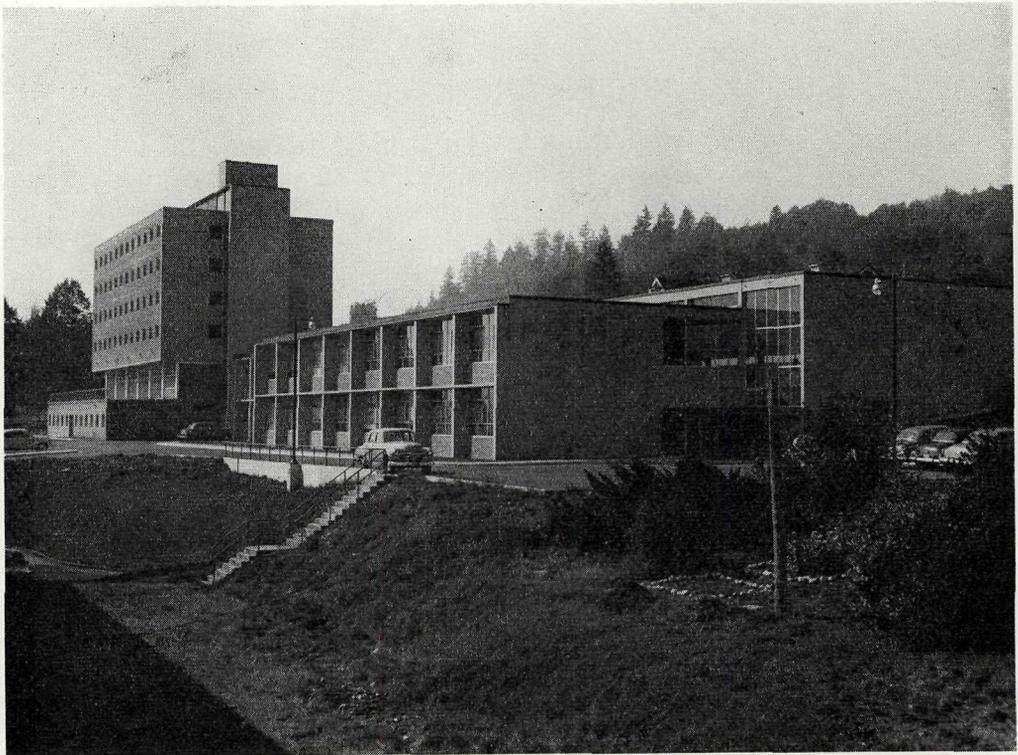
The major part of a planner's work on the North American Continent is of a propaganda nature, town and country planning being somewhat of a novelty. Planning has to be brought to the attention of the Legislature and the public. It is necessary to repeat the importance of planning before spending. Regional land planning can no longer be an afterthought. A constant war is being waged by many forces which affect the use of our land and the form of our towns and buildings. Planning policies that do not work with these forces are bound to fail. Such factors as the demand for more space, the attractive power of conurbations, the increase in size and number of motor-vehicles, the obstacles of comprehensive development by private enterprise, and the stability of agriculture come to mind. Unless those in command appreciate these forces or trends and their origins, and the relative power and justice of the demands that set them going, we shall not get very far in guiding land use in the true public interest. Provincial Governments have to realize their responsibilities in these matters. As self-confessed champions of economic growth and development, it is up to any Provincial Government to see that this deficiency is eradicated.

Planning may be compared to a form of collective self-consciousness. Once having become aware, there is no return to "unself-consciousness." One can only organize the new awareness into an asset. Similarly, having begun to organize (i.e., to plan), there is no return to the less organized condition previously obtained.

In the past we have often stumbled through without being clear about what we were doing, but the cost has been high—higher than we can now afford. Many bridges have been built in the last decade, but that most urgently needed is between town and country planning and the people of this fast-developing Province. As Architect-Planner, I have realized the need for better liaison of our Department with other planning authorities, and it is most encouraging to have been instructed to spend more time on this aspect of my work rather than the purely architectural side. I am sure this will be widely welcomed, and much good will result.

W. D. LOUGHER-GOODEY,
Architect-Planner.

“Dig a well before you are thirsty.”—*Old Chinese Proverb.*



Nurses' home and training centre, Essondale.



J. R. SIMPSON, P.ENG., B.Sc.

Senior Structural Engineer

John Raymond Simpson was born in Edmonton, Alta., in 1914. He received his Bachelor of Science (Civil Engineering) degree at Leeds University, where he was awarded an Ockroyd Scholarship. He is a registered professional engineer in British Columbia, and is presently taking the Government-sponsored Executive Development Training Course at the University of British Columbia.

Among notable projects Mr. Simpson worked on while associated with Holst & Company, Engineers and Contractors, of London, England, were Manchester and Kilmarnock Power Stations. Mr. Simpson was subsequently with the Public Works Department, Georgetown, British Guiana, South America, as district engineer in charge of sea defence work, road work, and drainage schemes.

In 1945 he joined the Public Works Department, and has been in charge of structural and civil engineering design since that time.

REPORT OF THE STRUCTURAL ENGINEER

The Structural Design Section worked in conjunction with other branches of the Architect's Office in most of the projects undertaken, our most important job being the preparation of structural plans and specifications for the new Government House in Victoria. Due to urgency, it was decided to let the structural contract separately. Other sections were then able to complete plans whilst building was actually progressing.

Among jobs designed during this period were the Pearson Tuberculosis Hospital, Vancouver; Vocational Training School, Burnaby; Court-house, Kitimat; and Scullery Building, Essondale.

An interesting break from the Section's strictly utilitarian function was provided when we were called upon to design the bases for the Queen's totem-pole in Windsor Great Park, England, and the Centenary pole in Vancouver. The poles, over 100 feet in height, had to be held erect without interfering with carvings, which started at ground-level. The problem was solved by placing the pole in a reinforced-concrete cup placed below ground-level and by treating the end of the pole to eliminate the possibility of wood rot.

In July, 1957, the writer had the privilege of representing the Public Works Department at the World Conference on Pre-stressed Concrete in San Francisco. Technical papers were given by world experts, and field-trips were made to pre-stressed plants in the San Francisco Bay area. A great deal of knowledge, useful to the Department, was gained.

Prevention of pollution of rivers and sources of water-supply has become most important due to the rapid development of the Province. In liaison with the Health Department, this Section has built many sewage-disposal plants. It is satisfying to note that the fully mechanized bio-filtration plant at the Correctional Institution, Haney—first of its kind in Western Canada—is living up to expectations and protecting the institution, the local residents, and the Alouette River from pollution.

A sewage plant based on the principle of total oxidation has been designed for Government buildings in Burnaby. This plant will be the first of its kind in Canada. Compressed air is blown into the sewage and oxidizes the impurities to fine ash material.

The history of this Division shows how quickly British Columbia is growing. Fifteen years ago there was only one engineer; to-day the Division numbers three engineers and four draughtsmen, and the need for their services still cannot be fully met.

We feel proud that this Department built the first large pre-stressed beams in British Columbia at the Laundry Building, Essondale. A full-scale test to destruction on one of these beams was carried out and was also the first of its kind, not only in British

Columbia, but, as far as can be ascertained, in Canada. The test, carried out by the British Columbia Research Council, undoubtedly helped foster the acceptance of pre-stressed concrete in the Province. Since that time it has been widely used in many types of buildings and bridges.

From time to time we have been called upon to pass opinions on buildings such as arenas, skating-rinks, etc., in many parts of the Province. It is a paradox that a building in unorganized territory (not regulated under the "Town Planning Act") is regulated under the "Health Act," the "Fire Marshal Act," and the "Electrical Energy Inspection Act," but no regulations exist as to structural design and safety. It is therefore strongly recommended that this Department make a check of plans for buildings or structures used for public assembly in parts of the Province not covered by any building code. This would provide a measure of public safety, which is lacking at this time.

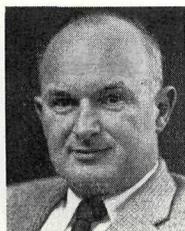
Structural engineering can roughly be divided into three periods—masonry and wood, steel, reinforced concrete. Masonry and wood were used from ancient times up to about 1850, when the Industrial Revolution brought steel into general use. Steel revolutionized structural engineering due to its strength in tension, which masonry lacked, and made possible long-span bridges, roof structures, and multi-story buildings that were built after this time.

The Parliament Buildings in Victoria, built around 1893-98, are an example of this period, with the walls of masonry, roofs of steel and wood, and floors of closely spaced steel beams with brick and concrete in-filling. After the turn of the century, reinforced concrete developed, and due to British Columbia's abundance of suitable aggregates, cement, and lumber, this form of permanent construction is probably the most widely used in the Province to-day. Pre-cast and pre-stressed concrete, glued laminated wood beams and trusses are important new developments that have been used with success in recent years.

J. R. SIMPSON, P.ENG.,
Senior Structural Engineer.



Centenary totem-pole, Windsor Great Park, England.



W. E. MILLS, B.A.Sc., P.ENG.
Senior Mechanical Engineer

William Earl Mills was born in Vancouver in 1916. He graduated from the University of British Columbia in 1941.

Prior to joining the Department in 1950, Mr. Mills held various engineering positions in industry. Some of the projects with which he was connected included the installation of a paper-machine, the construction of a pulp and paper mill, and the No. 18 steam generator at Ocean Falls (Pacific Mills Limited), then the largest and highest pressure in Western Canada. He joined West

Coast Shipbuilders Limited and adapted the Liberty ships' engine-room piping to the Canadian Victory ships.

Currently, Mr. Mills is taking the Government-sponsored Executive Development Course at the University of British Columbia.

REPORT OF THE MECHANICAL ENGINEER

SPACE-HEATING FOR COMFORT

Space-heating is old, very old. The fire, soon after man learned to control it, was used for warmth as much as for cooking.

We are still using it, in general, for heating. Developments in the last 100 years have made man's use of fire much more extensive. He has found means to convey the heat of the fire long distances from actual combustion itself. Space-heating by steam, hot water, and warm air was well established by the 1880's.

Extended-surface convectors and heating-coils became more widely used during the 1930's, particularly with forced-circulation hot-water systems. Renewed interest was displayed in radiant or panel heating methods. Radiant panel heating, both hot air and hot water, was used by the Romans, and the Koreans used a type of hot-air radiant system in their houses.

The mid-thirties also saw the introduction of the "packaged" fire-tube boiler. The type of boiler used is old, but when moulded into modern dress and fired with an oil burner, high efficiencies are obtained. The "packaged" small boiler (that is, factory assembled and tested) only requires fuel, flue, water, and electrical connections.

AIR-CONDITIONING

The art of air-conditioning was unknown at the beginning of the twentieth century. The controlling of physical conditions—that is, temperature, humidity, and cleanliness of air for physical comfort—had its beginning in industry. Shortly after the turn of the century the need for controlled conditioning of air in manufacturing became apparent, especially humidification and cooling. Development was rapid. By the 1920's commercial use was made of air-conditioning in hotels, theatres, and other public places. Beginning in the mid-thirties, air-conditioning was installed in office buildings, hotels, and hospitals, and other multi-space structures.

GENERAL

The scheduled building programme for the fiscal year 1957/58 was a large one, and kept the activities of the Section concentrated upon the capital programme.

Summer cooling systems for the Provincial buildings at Kelowna and Cranbrook have been completed and ready for tender.

The gradually increasing cost of space, coupled with more complicated and increasing volume of services in a building, points out the need for very close attention to

integrated detail of all services. To this end it now appears necessary to devote more attention to the plumbing piping to realize maximum advantage with minimum space.

CAPITAL PROJECTS

Outstanding in the projects handled by the Section was the large addition to the boiler-house at the Provincial Mental Hospital, Essondale. The need for additional steaming capacity at the hospital became patently apparent after the detailed study of requirements was made (mentioned in last year's Annual Report).

The Governmental decision to provide the extra steaming capacity required to protect the patients signalled a flurry of activity in the Section. Co-operating with Swanson, Wright & Company, Engineers, Limited, of Vancouver, the Section studied all the possible permutations and combinations to achieve the best all-round heat balance for the hospital. This study revealed that, at long range, the hospital could best be served by three 75,000-pounds-per-hour boiler units generating steam at 400 p.s.i.g. One was needed immediately, and a second unit would be within two years to replace obsolete units. Space and site configurations required a new building, adjoining the existing plant, to house the new boiler units.

Cost studies resulted in the choice of a structural-steel building sheathed in structure glazing as the most economical type of building, and one which would present a pleasing exterior to the adjoining arterial highway.

This boiler unit will be the largest and have the highest operating pressure of any in the Provincial Government service.

MAINTENANCE

Maintenance of mechanical equipment continued at a high level.

SUPERVISION OF PLANT OPERATION AND OPERATING PERSONNEL

Numerous field-trips were made by the Section, both to inspect new work and to visit the various heating plants.

Operating staffs were stable this year, so that there were few problems of recruitment. The stationary engineers, however, in conjunction with the Civil Service Employees' Association, were very restive.

RECOMMENDED

Not all stationary engineers are under the jurisdiction of the Department of Public Works, and yet the Department is charged with the maintenance and upkeep of Government buildings and equipment. We would recommend that such engineers come under Public Works jurisdiction and thus simplify the handling of mechanical maintenance.

W. E. MILLS,
Senior Mechanical Engineer.



ERIC C. CLARKSON, M.R.A.I.C., M.A.I.B.C., A.I.A.A.

Maintenance Architect

Mr. Clarkson was born and educated in England. He attended Ripon School, Yorks, England, and Leeds University. He was in private practice in England; Santa Barbara, U.S.A.; and Victoria, B.C. He had war service with His Majesty's forces in India, Iraq, and Persia. From 1939 to 1944 he was Senior Architect, R.C.N., Naval Service Works and Buildings (West Coast), and in 1945 joined the architect's staff of the Department of Public Works.

He is a member of the Architectural Institute of British Columbia, the Royal Architectural Institute of Canada, and Associate of Incorporated Association of Architects of Great Britain.

REPORT OF THE MAINTENANCE ARCHITECT

Expenditures during the past year have amounted to \$2,428,967.62. This total covers the maintenance of approximately 300 Government buildings having a replacement value of \$145,000,000 which come under the jurisdiction of the Department of Public Works.

Extensive renovations have been carried out in Provincial Government buildings at New Westminster, Nelson, Revelstoke, and Prince Rupert, and major redecorations executed at Pouce Coupe, Nanaimo (old building), Golden, Courtenay—to mention but a few; also a number of Government-owned residences and R.C.M.P. detachments.

The Homes for the Aged at Terrace and Vernon have undergone extensive maintenance, including redecorations, repairs, and renovations to various buildings.

Considerable landscaping has been carried out at Prince Rupert, Fernie, Jericho Hill School (Vancouver), and the Child Guidance Centre at Burnaby. The grounds of all Provincial Government buildings are in fair condition, considering the minimum of staff which is employed on their upkeep. Nevertheless, further thought must be given to general landscaping improvements if Government buildings are to be of a standard which will reflect full credit upon the Province.

This being Centennial Year, all Government buildings (including British Columbia House, London, England) were decorated in accordance with designs produced by this Department, and, in the majority of cases, the erection of decorations was carried out by the Superintendents of this Department and their staffs.

Inspection trips were made at regular intervals, and many matters pertaining to buildings have been settled in the field. The excellent co-operation received at all times from the Government Agents, who act as representatives for this Department, has been most appreciated and should be noted.

Quite a number of Government buildings are overcrowded, and, wherever possible, offices have been remodelled to accommodate the requirements of the various departments, but the situation has now reached the point where no more space can be allocated in a majority of the buildings. This condition is due, of course, to the expansion being experienced in activity in the Province.

Many Government buildings are now quite old, dating back to the 1880's, and therefore expensive to maintain—for example, Victoria, New Westminster, and Rossland. No attempt at renovating has been made, but in all cases the buildings are being kept in fair condition with a minimum of expense.

Every year more buildings are being erected and taken over by this Department, and with the funds presently allocated, full maintenance is impossible. Whilst this situation has been brought about mostly by expansion, it is something to which we must give more consideration.

RECOMMENDATIONS

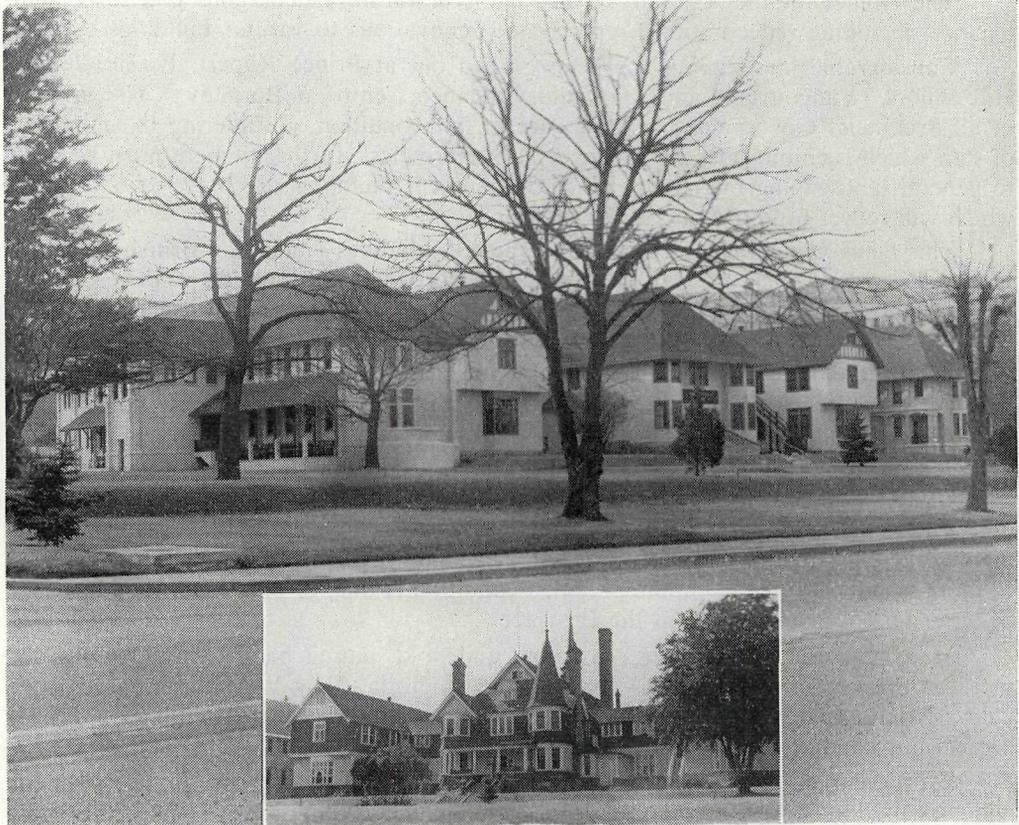
May consideration be given to the following items mentioned below:—

- (1) That all staff now maintained to run Court-houses, etc., such as janitors, gardeners, engineers, be placed under the jurisdiction of the Department of Public Works. If this were instituted, better control of buildings would result.
- (2) Serious thought should be given to furnishings. Although this does not come under Department of Public Works, it reflects on this Department when renovations, etc., are carried out. When old furnishings are returned to newly renovated offices, etc., these definitely minimize the desired effect.
- (3) Efforts to reduce staff have been made and have, in general, been effective. However, care should be exercised that proper maintenance of buildings does not suffer through the lack of essential staff. It is felt that studies should continue to determine that buildings are being maintained at a creditable and desirable level.

I should like to close this report by thanking the Superintendents of Public Works at Vancouver, Essondale, Victoria, Tranquille, and Nanaimo, who in the past year have done excellent work with the minimum of staff.

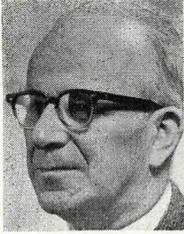
E. C. CLARKSON, M.R.A.I.C., A.I.A.A.,

Maintenance Architect.



Provincial Home, Kamloops, before and after modernization.

SUPERINTENDENTS OF WORKS



P. W. MACKERETH

Superintendent of Works, Victoria, B.C.

Mr. Mackereth was born in 1894 at Millom, Cumberland, England. He apprenticed in England. He emigrated to Canada and came to Revelstoke in 1910 and worked for a building contractor. He later came to Victoria and worked for the British Columbia Telephone Company. In 1914 he commenced work with the Provincial Government. He enlisted in the Canadian Armed Forces in 1917 and was discharged in 1919. He was promoted to Head Carpenter in 1930 and to Head Carpenter and Overseer on April 1st, 1944, to

Foreman of Works—Grade 2 in 1948, and to his present position as Superintendent of Works on December 1st, 1951.

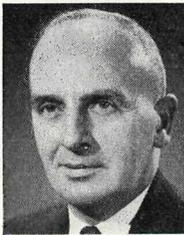


W. R. MEADOWS, P.ENG., B.C.L.S.

Superintendent of Works, Essondale, B.C.

Mr. Meadows was born in 1903 in Windsor, Ont. He attended the University of Saskatchewan, Saskatoon, from 1921 to 1925, graduating with a Bachelor of Science degree in civil engineering. Mr. Meadows was employed in the engineering field from 1925 to 1940 with the Department of Highways, Saskatchewan, and various industrial concerns. Mr. Meadows joined the R.C.A.F. on November 16th, 1940, as a squadron engineer, and was discharged on February 3rd, 1945. Mr. Meadows was then engaged in land surveying

until commencing with the Department as Superintendent of Works, Essondale, August 1st, 1951.



G. J. K. PENDYGRASSE

Superintendent of Works, Vancouver, B.C.

Mr. Pendygrasse was born in 1904 in Prince Albert, Sask. After serving his apprenticeship he was employed for approximately twenty years with various construction companies as carpenter. In 1939 he enlisted in the R.C.A.F. and was discharged on February 8th, 1945. Mr. Pendygrasse was employed as Head Carpenter with the Department on October 22nd, 1945, promoted to Foreman of Works—Grade 1 on July 1st, 1948, Foreman of Works—Grade 2 on April 1st, 1951, and to his present position on April 1st, 1953.

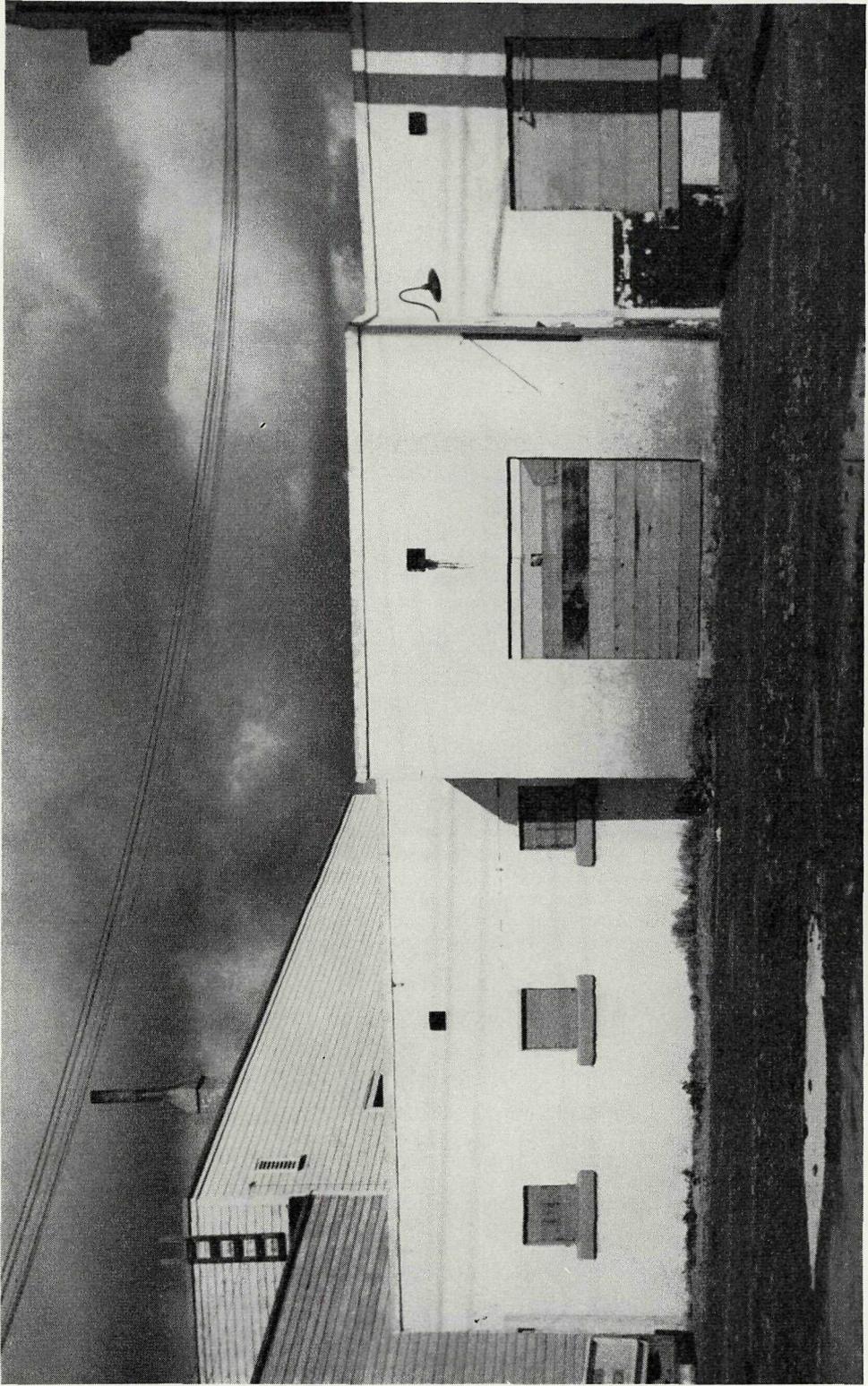


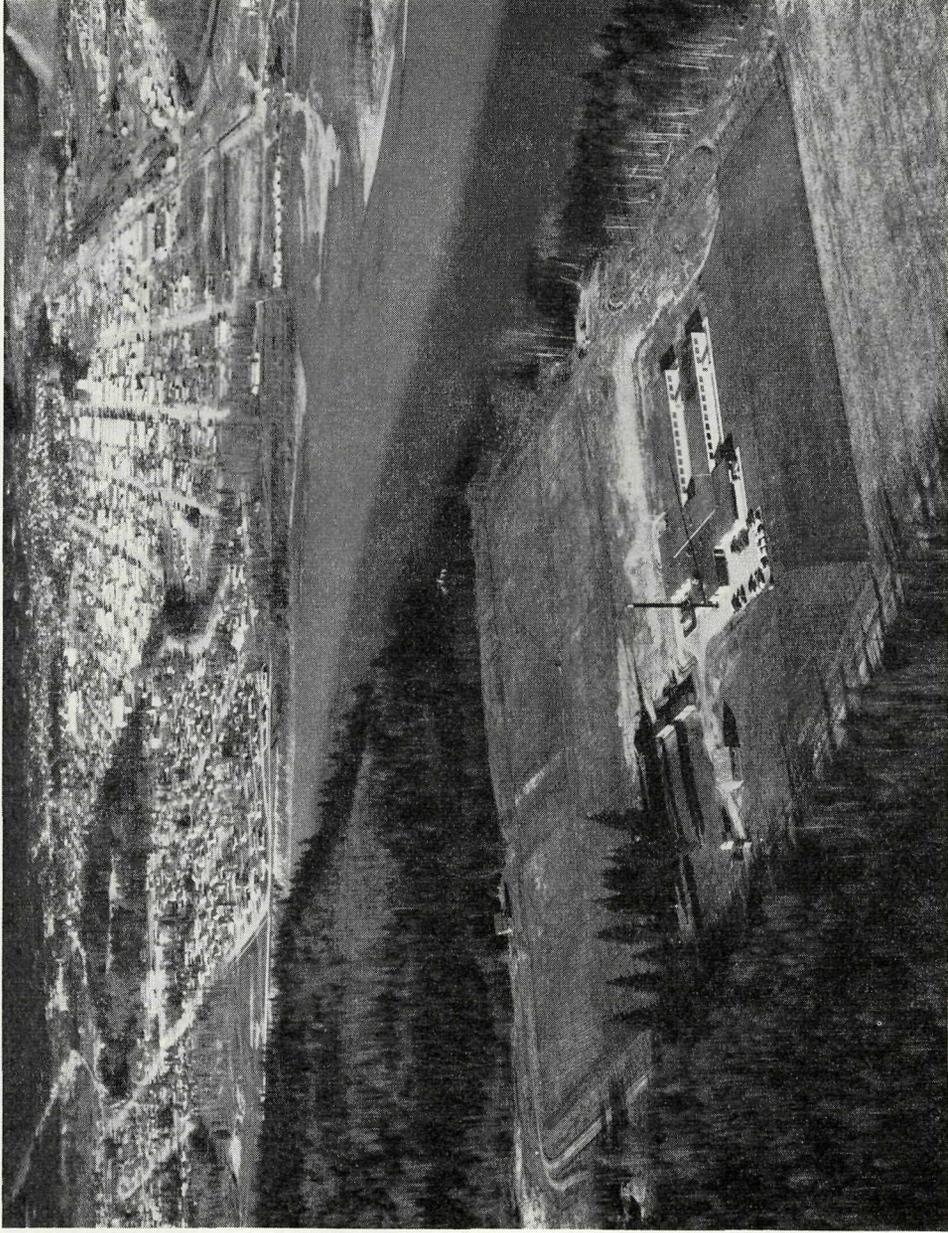
J. C. MARTIN

Superintendent of Works, Tranquille, B.C.

Mr. Martin was born in 1902 at Barry Dock, Wales. He was employed from 1924 to 1937 with private contractors as a carpenter and from 1937 to 1939 as manager of a construction company. On October 15th, 1939, he enlisted with the R.C.A.F. as a foreman of works, and was discharged on October 25th, 1945. From October 25th, 1945, Mr. Martin became a townsite manager with Pacific Mills Limited. Mr. Martin joined the Department as Foreman of Works, Tranquille, February 1st, 1947, promoted to Foreman of Works—

Grade 2 on July 1st, 1948, and Superintendent of Works on April 1st, 1952.





Symbolizing British Columbia's robust transition is the change from old lockup (opposite) to modern gaol at Prince George. In this picture the northern city's smart new Government building (top right centre) and its new hospital (top left centre) may be seen, as may also its suburban residential expansion.

TENDERS RECEIVED AND CONTRACTS AWARDED FOR BUILDINGS

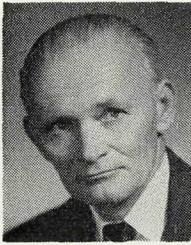
| Description of Work and Names of Tenderers | Amount | Remarks |
|--|-------------|-----------|
| HEATING FOR COURT-HOUSE, KAMLOOPS—STAGE II: | | |
| Carr Plumbing & Heating Ltd. | \$26,500.00 | Awarded. |
| H. Geddens Ltd. | 27,842.00 | |
| McKinnon Plumbing & Heating | 28,351.00 | |
| Keith Plumbing & Heating Co. Ltd. | 30,450.00 | |
| ASH-HANDLING SYSTEM, POWER PLANT EXTENSION, PROVINCIAL MENTAL HOSPITAL, ESSONDALE: | | |
| The Bay Co. (B.C.) Ltd. | 29,830.00 | Awarded. |
| Fred Welsh & Son Ltd. | 28,940.00 | |
| Moncrieff Construction Ltd. | 26,361.00 | |
| SUPPLY AND ERECTION OF CHAIN LINK FENCING, BRITISH COLUMBIA CORRECTIONAL INSTITUTE, HANEY: | | |
| Dominion Bridge Co. Ltd.— | | |
| Alternate No. 1 | 52,246.80 | No quote. |
| Alternate No. 2 | ----- | |
| British Ropes Canadian Factory Ltd.— | | |
| Alternate No. 1 | 60,900.56 | No quote. |
| Alternate No. 2 | 52,934.70 | |
| A.I.M. Steel Ltd.— | | |
| Alternate No. 1 | 61,790.00 | No quote. |
| Alternate No. 2 | 55,281.60 | |
| Wright's Canadian Ropes Ltd.— | | |
| Alternate No. 1 | ----- | No quote. |
| Alternate No. 2 | 55,360.42 | |
| Gilmour Construction & Engineering Co. Ltd.— | | |
| Alternate No. 1 | 70,332.00 | No quote. |
| Alternate No. 2 | 68,778.50 | |
| Frost Steel & Wire Co. Ltd.— | | |
| Alternate No. 1 | 73,234.20 | No quote. |
| Alternate No. 2 | 73,234.20 | |
| Lewis Construction— | | |
| Alternate No. 1 | 53,209.75 | Awarded. |
| Alternate No. 2 | 52,695.75 | |
| BOILER-HOUSE EXTENSION, PROVINCIAL MENTAL HOSPITAL, ESSONDALE: | | |
| Beaver Construction Co. Ltd. | 281,765.00 | Awarded. |
| C. J. Oliver Ltd. | 293,870.00 | |
| D. Robinson Construction Ltd. | 307,643.00 | |
| Mainland Construction Co. Ltd. | 317,572.00 | |
| Moncrieff Construction Co. Ltd. | 325,703.00 | |
| ----- | ----- | |
| ABBOTSFORD, B.C., RANDOM POULTRY TEST HOUSES: | | |
| R. A. Adair Construction Ltd. | 99,984.00 | Awarded. |
| Lickley Construction Co. Ltd. | 109,607.00 | |
| Gilmour Construction & Engineering Co. Ltd. | 110,933.00 | |
| Beaver Construction Co. Ltd. | 116,313.00 | |
| C. J. Oliver Ltd. | 110,592.00 | |
| Industrial Mill Services | 122,768.00 | |
| Deitchers Construction | 129,000.00 | |
| Coyne & Ratcliffe Construction Co. Ltd. | 130,977.00 | |
| ----- | ----- | |
| ----- | ----- | |
| 12-KV. RECEIVING-STATION, ESSONDALE—SUPPLY AND INSTALLATION OF 12-KV. INDOOR UNITIZED SWITCHGEAR: | | |
| Johnson & Phillips (Canadian Sales) Ltd. | 26,067.00 | Awarded. |
| Cemco Electrical Manufacturing Co. | 25,600.00 | |
| J. H. McRae Co. Ltd. | 23,695.00 | |
| F. B. Stewart | 23,400.00 | |
| ----- | ----- | |
| ELECTRICAL ALTERATIONS, POWER DISTRIBUTION SERVICE, KAMLOOPS GOVERNMENT BUILDING: | | |
| H. Geddens Ltd. and C. L. Wain & Son | 64,759.00 | Awarded. |
| J. H. McRae Co. Ltd. | 57,570.00 | |
| CLEARING, ROUGH GRADING, AND DRAINAGE, VOCATIONAL SCHOOL SITE, BURNABY: | | |
| Fownes Construction Co. Ltd. | 109,020.65 | Awarded. |
| Shiels Trucking Co. Ltd. | 107,819.62 | |
| Peter Kiewit Sons Co. of Canada Ltd. | 78,000.00 | |
| W.D. Construction Co. Ltd. | 75,419.80 | |
| Sirny & Son | 69,536.00 | |
| Murphy Excavating Co. Ltd. | 69,015.00 | |
| Breaks Bros. Construction Co. Ltd. | 67,657.52 | |
| B. & T. Logging | 54,657.00 | |
| ----- | ----- | |
| ----- | ----- | |
| NEW STORM-DRAIN, PROVINCIAL MENTAL HOSPITAL, ESSONDALE: | | |
| Ben Homes Ltd. | 14,955.00 | Awarded. |
| Ted's Compressor Service Ltd. | 24,782.50 | |
| Howe Construction Co. Ltd. | 31,860.00 | |
| G. W. Ledingham & Co. Ltd. | 35,000.00 | |
| PAVING OF ACCESS ROAD, BRITISH COLUMBIA CORRECTIONAL INSTITUTION, HANEY: | | |
| Columbia Bitulithic Co. Ltd. | 14,938.90 | Awarded. |

**TENDERS RECEIVED AND CONTRACTS AWARDED FOR
BUILDINGS—Continued**

| Description of Work and Names of Tenderers | Amount | Remarks |
|--|---------------------------|----------|
| JANITORIAL SERVICE, GOVERNMENT BUILDINGS, VANCOUVER: | | |
| Modern Building Cleaning Service | \$129,624.00 ¹ | |
| Phil Niebergal | 80,803.60 ² | |
| Excelsior Building Maintenance | 98,904.00 ¹ | Awarded. |
| STRUCTURAL WORK, NEW GOVERNMENT HOUSE, VICTORIA: | | |
| Luney Bros. & Hamilton | 249,730.00 | |
| Bennett & White Construction Co. | 254,756.00 | |
| Farmer Construction Co. | 242,816.00 | |
| John Laing & Sons | 229,976.00 | Awarded. |
| D. Robinson Construction Ltd. | 238,931.00 | |
| Commonwealth Construction Co. | 231,959.00 | |
| Pacific Bridge Co. Ltd. | 439,000.00 | |
| ELEVATORS, NEW GOVERNMENT HOUSE, VICTORIA: | | |
| Turnbull Elevator Co. | 25,345.00 | |
| Otis Elevator Co. Ltd. | 23,140.00 | Awarded. |
| J. & E. Hall Ltd. | 25,090.00 | |
| INSTALLATION OF NEW 12-2.4/4.16-kv. DISTRIBUTION FACILITIES, PROVINCIAL MENTAL HOSPITAL, ESSONDALE: | | |
| Mott Electric Ltd. | 41,690.00 | |
| McCullough Electric Ltd. | 32,400.00 | |
| Ricketts-Sewell Electric Ltd. | 34,316.00 | |
| J. H. McRae Co. Ltd. | 38,965.00 | |
| F. B. Stewart | 28,291.00 | Awarded. |

¹ Two years.² One year.

Auditorium and chapel, Home for the Aged, Port Coquitlam.



ROBERT H. SAVERY

Landscape Designer

Mr. Savery was born in England in 1902. He was educated at St. Paul's School, Kensington, London, and was on "Moderns" majoring in biological science and art. He continued his art work with the associate studio of A. Gilbert, R.O.I., R.A., in botanical and zoological research presentation.

Mr. Savery came to Canada early in 1924 and travelled in the West and Northwest, later returning to Toronto to join the firm of H. B. Dunnington-Grubb, Landscape Architects. He eventually assumed the landscape work for

E. D. Smith & Sons of Winona. He joined the Provincial Department of Public Works on September 1st, 1944.

REPORT ON THE LANDSCAPE SERVICE

"No house should ever be on any hill or on anything. It should be of the hill, belonging to it, so hill and house could live together each the happier for the other."—*Frank Lloyd Wright*.

The design of planting associated with building is an aspect of architecture deserving most careful attention. Besides improving the appearance of the buildings themselves, it gives grace and elegance to their surroundings and ultimately elegance to a city as a whole.

Perhaps it is not too much to claim that great pleasure is given to both passers-by and people living and working in the buildings by providing a logical and organized design of the outer space of the property and the space around and between buildings.

In final analysis, well ordered and maintained properties are simply a logical part of building maintenance which can only be neglected at the price of perpetuating a drab, run-down appearance. One well-designed, well-planted, and well-maintained area is far better than several less prosperous ones.

Early appraisal of the landscape requirements of properties at the outset of the building operations may well be urged, because it is easier and cheaper to construct a satisfactory ground development with new work than to remodel or adapt old work, often haphazard in inception.

The Landscape Service of the Public Works has attempted to formulate such a system of basic master plans for new construction during the past year. Previously much preparatory work was completed in assembling data and bringing the record drawings of properties under the supervision of the Public Works Department up to date to show recent additions and improvements.

Plans for the treatment of new properties have been prepared and in some cases are in the process of preliminary implementation.

Recommendations have been made as to the work required over a timed development period for older properties, to eventually bring them to a satisfactory condition. In this project the Maintenance Architect of buildings has not only worked closely in these schemes, but has given valuable co-operation in their development.

The implementation of a major development on the grounds of Government House will be a continuing project for probably the next three years. With this and several new works in prospect, it may be confidently expected that the work in this sphere will develop favourably in the coming year.

R. H. SAVERY,
Landscape Designer.



H. C. DAVIES

Mr. Davies was born in 1917 in Lloydminster, Sask. He has lived in British Columbia thirty-six years and was educated in Victoria and Vancouver. His first employment with the Government was in the Young Men's Forestry Training project in 1936 at Cowichan Lake. He was appointed foreman and supervised a large group of young men learning rudiments of forestry protection, road-building, etc. He was transferred to a topographical survey crew operating in the Buttle Lake area. He commenced employment with the Department of Public Works in October, 1937. In 1948 he transferred from the Accounts Branch to the Personnel Office, and on the retirement of the Assistant Deputy Minister was promoted to Personnel Officer in 1953. Since appointment he has taken various courses and studies in personnel administration.

REPORT OF THE PERSONNEL OFFICER

Reduction in staff was the major undertaking of the year. Although offset by unavoidable staff increases in our expanding inspection divisions, we were able to make substantial reductions elsewhere, without disruption of service. Most rewarding was the co-operation of branch heads, who, understanding the usual trend of overdevelopment, made a special effort to ensure the success of the efficiency effort.

The Gas Division deserves special mention. The anticipated increase in inspection services began during this fiscal year. Training and selection of Inspectors was well organized, mainly due to the efforts of the Chief Gas Inspector, A. G. Kaneen.

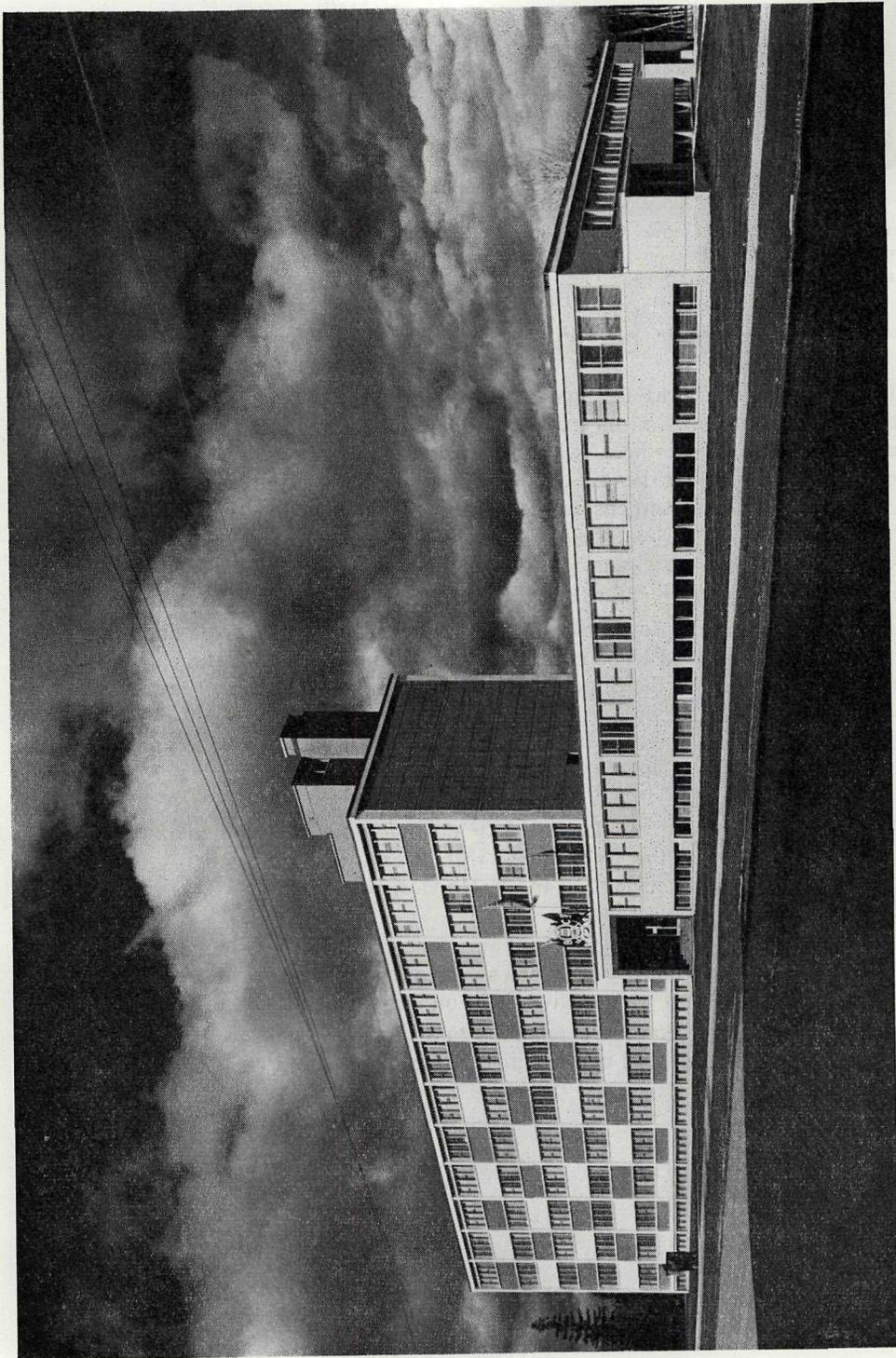
An experiment in employee relations was undertaken at Essondale and The Woodlands School, which proved to be successful and will be repeated as time permits. Advance notice was given to the Superintendent of Works that special meetings would be held with employees, either in a group or individually, for the purpose of discussing their complaints or grievances and to accept any constructive ideas they have to improve morale and employee relations. The response was excellent, and many problems were solved on the spot.

The year was marred by the untimely death of our Departmental Comptroller, J. E. Moore, who served the Department with energy and devotion for twenty-seven years. He was eventually succeeded by A. Rhodes, who previously was the Chief Accountant in the Forest Service.

There are many jobs to do which at this time have not been done due to lack of time. We hope to make employees more aware of the purpose of the Personnel Office by utilizing the information we can give them on employment conditions.

Another medium of employee relations that has not been developed is a Departmental publication dealing with personalities in the news within the Department.

H. C. DAVIES,
Personnel Officer.



A new landmark in British Columbia's vigorous north land is Prince George's new Government building, known as the Centennial Building. It typifies this Province's dynamic progress.



MISS RUTH THOMPSON

Telephone Supervisor

Miss Thompson was born and educated in Vancouver, B.C. She has been associated with telephone work for the past eighteen years, starting out first with the British Columbia Telephone Company, and then on loan to the Provincial Government. In 1950 she became a Civil Servant when the Government assumed responsibility for staffing its own switchboards throughout the Province.

Miss Thompson was employed to train and supervise operators as Exchange Supervisor. In 1952 she was named Supervisor of Telephones, and assumed responsibility for the newly formed Telephone Branch of the Department of Public Works, including supervision and training of operators, surveys for all new services, moves, changes of equipment, directories, and liaison between Government and operating telephone companies.

REPORT OF THE SUPERVISOR OF TELEPHONES

The increased demand for telephone services continues. The traffic increase is mainly due to the reaction of the general public to our intensified operator-training programme. Since September, 1950, we have endeavoured to give a fast, efficient personalized service. To the public, who lack specific knowledge as to the department or branch required to handle their queries, this service has been accepted with enthusiasm and has resulted in improvement in public relations.

This year we published, for the first time, a comprehensive training manual for all operators. This emphasizes a cheerful "willing to serve" attitude, so important in the business world to-day. It includes sections on voice, operating procedure, accepted phrases, a résumé of Provincial Statutes and of the many diversified aspects of the operation of Government departments.

The rapid growth of the Province has brought equally rapid expansion within the Government service, direct exchange and switchboard service both being affected. Installations, moves, and changes have shown a 10-per-cent increase.

Three new switchboards have been installed. One at the new offices of the Director of Correction, 1075 Melville Street, Vancouver, has proved a boon to this busy office. At Kamloops we took out an already overloaded one-position P.B.X. and installed a two-position switchboard in the new Administration Building. This extends service to all buildings, with the exception of the Government Agent and Land Registry Office. The third was installed at the British Columbia Correctional Institution, Haney. The new and varied equipment used is superior to any used thus far. It is of high interest and of great help in dealing with the many problems encountered in the supervision of a "high security" correctional institution.

In addition to normal business installations, we now have two units of secretarial answering equipment, several units of key telephones, and two loud-speaking monophones. All three types mentioned increase office efficiency. The secretarial answering unit and key telephones allow all stenographers to answer all lines associated with the equipment. The loud-speaking monophone adds greatly to efficiency in offices such as Forest Radio, where the operator normally has both hands in use and finds it difficult to "cradle" the telephone.

Orders have been placed for delivery of new and (*or*) additional equipment for the Prince George Government Building, Willingdon School for Girls, Parliament Buildings, and Government House. The equipment for Government House is completely new to British Columbia and will "make news" in the telephone world. We shall be placing into service there the first completely automatic switchboard capable of extending service to more than twenty stations. All calls will be answered in the Secretary's office during business hours, but at other times calls may be placed, answered, and extended from any location.

A significant departure from our usual procedure was made on Government House. In addition to our normal survey for requirements—that is, location of outlets, number of stations, etc.—we were able to work directly with the electrical consultants on conduit, house, riser, and local cabling. This is the first time we have been permitted to follow a telephone installation from the very beginning, and we find it most interesting and informative.

An extensive brief was compiled and submitted through the joint effort of the British Columbia Telephone Company and this branch on a study of intercity communications. The study was based on a careful analysis of circuit usage, traffic patterns, and cost factors. This study produced recommendations for a fully integrated teletype message network and the use of lower-cost flat-rate private-line and foreign-exchange voice circuits to replace part of the heavy usage of long-distance calls. The thought in mind was a combination teletype and switchboard service giving maximum coverage and using minimum staff and equipment.

To date we have twenty-six switchboards in operation with a total of thirty-eight positions, carrying a staff of fifty-four permanent operators and sixteen relief operators.

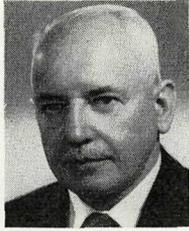
It is our hope that we have become a credit to our Department and the Government which we serve.

RECOMMENDATION

The adoption of a new approach and some new methods in the entire field of communications within the service is strongly recommended. Rapid advances made over the last two or three decades have inevitably resulted in a communications system which has “just grown” in spite of very careful and conscientious control. It is only to be expected that the most modern equipment can offer vastly superior service at a very significant saving in operating costs.

Referred to above is a study made jointly by this section and the British Columbia Telephone Company. The report shows that a fully integrated teletype message network to serve all Government departments and the use of lower-cost flat-rate private-line and foreign-exchange voice circuits would speed service, alleviate loads, increase efficiency, and reduce costs. The case in favour of the adoption of these modern methods appears overwhelming.

(Miss) R. E. THOMPSON,
Supervisor of Telephones.



D. DENHAM, P.ENG.

Chief Boiler Inspector

Mr. Denham was educated at Richmond School, Yorkshire, England, and Darlington Technical College. He apprenticed at Robert Stephenson's Locomotive Builders, Darlington. From 1924 to 1935 he was engineer officer on Atlantic and Pacific liners of Canadian Pacific Steamships.

Mr. Denham joined the Boiler and Machinery Inspection Department in 1935 and became Chief Inspector in 1948. He drafted the "Gas Act" and regulations. Between 1952 and 1956 he organized the Gas Division.

He is presently a member of three Canadian Standards committees—Boilers and Pressure-vessels (chairman, 1956/57), Refrigeration, and Welding—a member of the Code Conference Committee and American Society of Mechanical Engineers. He is a registered professional engineer and a member of the Engineering Institute of Canada.

REPORT OF THE CHIEF INSPECTOR OF BOILERS AND MACHINERY

THE ACT

An amendment to the Act made at the 1957 Session extending the scope of the second-class engineer's certificate from 900 to 1,000 horse-power has proved satisfactory.

The trend toward automation in boiler operation—a direct consequence of the introduction of oil and gas fuels—causes the Act to be outmoded in many of its particulars, hence further amendments will be necessary.

An amendment in 1950 which required hot-water heating boilers to be inspected annually has enabled us to bring the old plants up to safe standards. New plants are examined carefully before being released for service. Experience has proved that if the plant is adequately equipped and properly installed, annual inspection of the smaller plants is no longer necessary. We recommend this type of plant be inspected at longer intervals, in the same manner as is done with pressure-vessels.

REGULATIONS

The magnitude of gas pipe-line projects makes any delay or interruption extremely expensive. To offset this in part, Order in Council No. 1278 was passed to enable us to undertake group testing of welders on the job site. Total number of pipe-line welders examined was 213.

NEW CONSTRUCTION

In British Columbia workshops, twelve high-pressure and twelve low-pressure steam and eighty-three hot-water boilers were made, besides 975 pressure-vessels.

Among the larger steam plants registered were British Columbia Forest Products, Crofton, 3,416 horse-power; Pacific Petroleum, Taylor, 6,152 horse-power; Jefferson Lake Sulphur Company, Fort St. John, 1,978 horse-power; Post Office, Vancouver, 539 horse-power.

Currently, we are concerned with the specifications for the proposed Burrard Thermal Station, which will have a capacity of 1,200,000 horse-power.

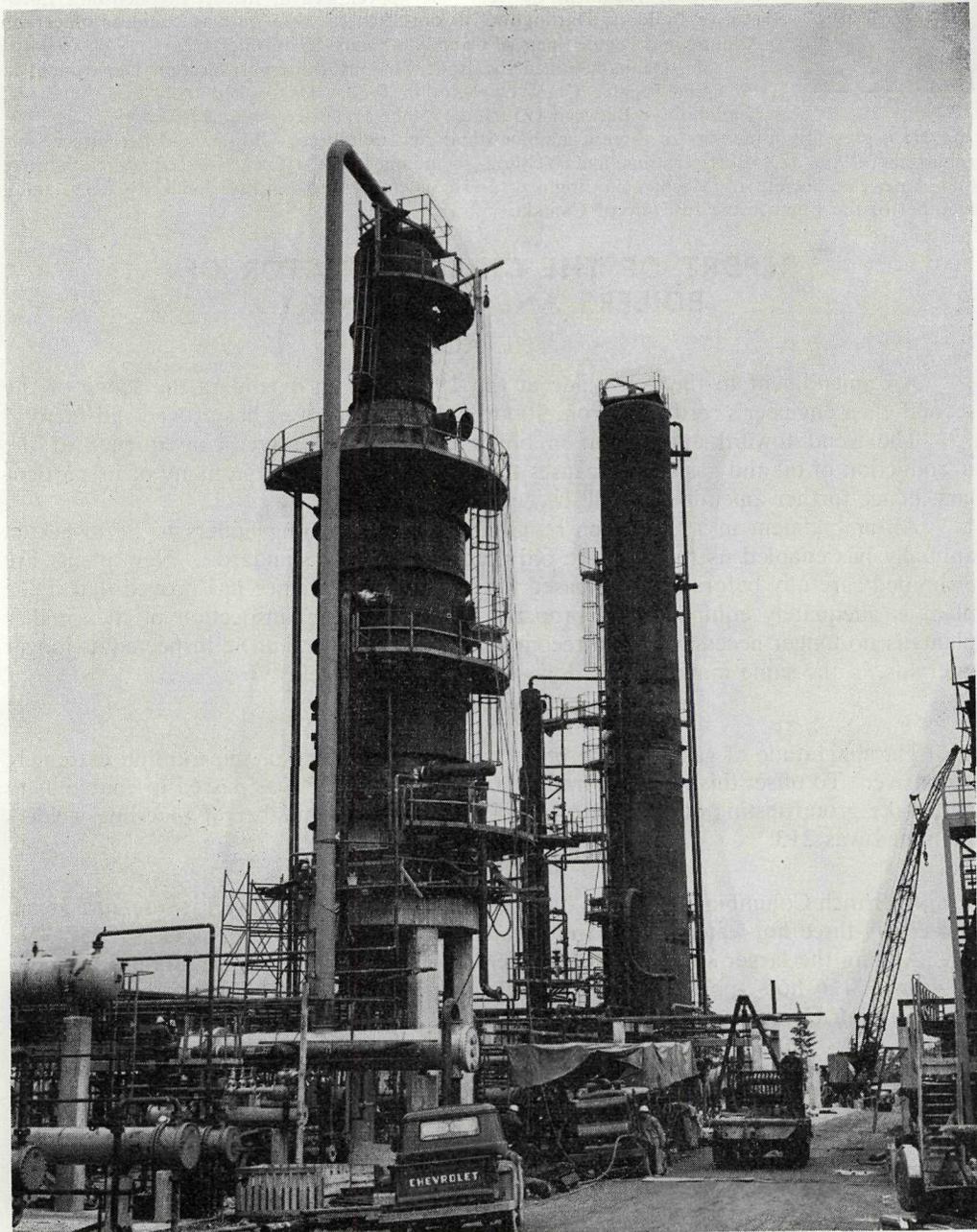
ACCIDENTS AND REPAIRS

One boiler was overheated and its internal furnace collapsed due to defective low-water regulator.

A furnace explosion burned the engineer about the hands and face and caused damage to boiler-room.

An unusual explosion inside a pulp-mill digester was sufficient to lift the digester (with contents amounting to 165 tons) 7 inches. No one was injured. The principal damage was at the footings supporting the digester.

Fifty-six boilers were repaired under Inspectors' directions.



Oil-refinery pressure-vessels, built in British Columbia.

STATIONARY ENGINEERS

A high standard of practical and theoretical knowledge is required of first- and second-class engineers. The supply of men in this category is deteriorating because (a) the slow process of "working up" from fireman is not attractive to ambitious young technicians, and (b) automation is eliminating firemen to the point where it is almost impossible for them to enter this field.

At a meeting on February 25th attended by representatives of the Departments of Labour, Education, Public Works, and Transport (Canada), as well as steam-plant owners, trade-unions, and operating engineers, it was proposed that a plan for apprentice steam engineers be prepared. A committee was selected to investigate and prepare such a plan.

PERSONNEL

We recommend that the next recruitment of Inspectors be from recent mechanical graduates. After a period of three or four years as Grade I Inspector for training in inspection and office procedures, they will be transferred to Grade II.

Thus in time a cadre of professional engineers will be formed. They will prove valuable in dealing with the many complex problems which are arising as our steam and pressure-vessel plants grow in size and pressure.

Professional engineers in this category will also be available for promotion, not only within this Division, but in other branches of the Civil Service.

SUMMARY OF WORK

Revenue was 7.4 per cent over that of last year and \$1,335.70 in excess of expenses. In addition, inspections were made on Public Works boilers and pressure-vessels amounting to a revenue equivalent of \$2,500.

| | |
|---|--------------|
| New designs registered | 877 |
| Fees collected for designs | \$10,202.00 |
| New boilers built in B.C. shops | 107 |
| Pressure-vessels built in B.C. shops | 975 |
| Pressure-vessels inspected | 1,765 |
| Total number of all boilers inspected | 4,479 |
| New boiler installations registered | 236 |
| Number of engineers examined | 719 |
| Number of welders examined | 2,611 |
| Over-all cost of Division to Government | \$114,330.24 |
| Over-all total revenue | \$115,665.94 |

ANALYSIS OF EXAMINATIONS

Fees Received

| | 1957 | 1958 |
|------------------------------|-------------|-------------|
| Engineers | \$3,175.00 | \$6,381.25 |
| Welders | 10,801.50 | 13,360.00 |
| Duplicate certificates | 78.50 | 115.50 |
| Totals | \$14,055.00 | \$19,856.75 |

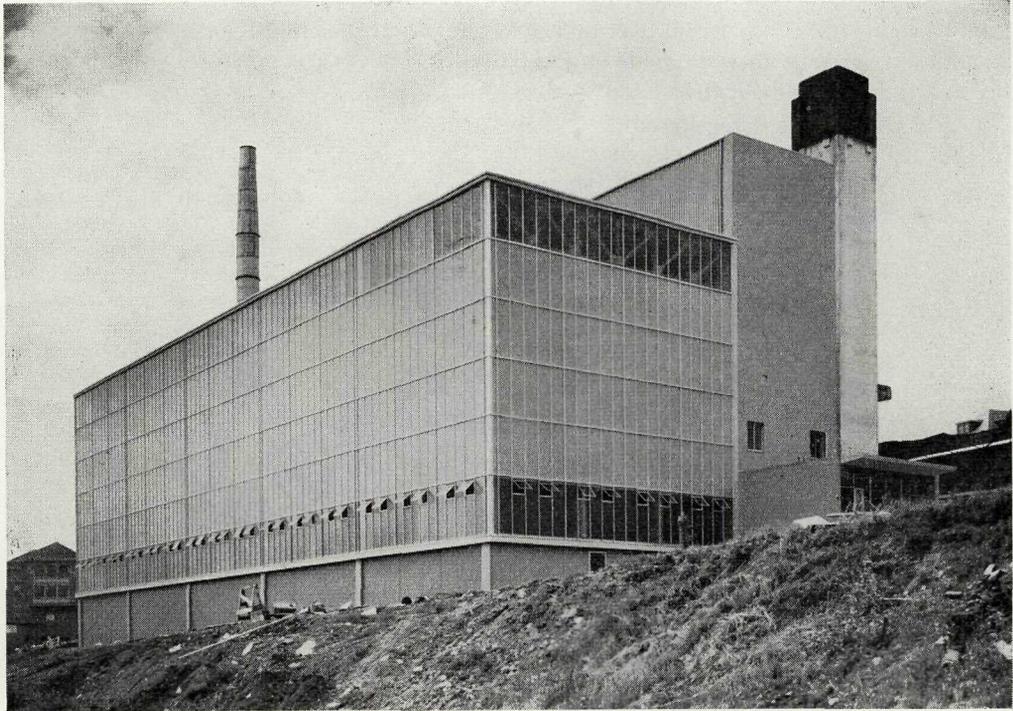
Engineers

| | Year Ended Mar. 31, 1957 | | | Year Ended Mar. 31, 1958 | | |
|----------------------|--------------------------|--------|--------|--------------------------|--------|--------|
| | Examined | Passed | Failed | Examined | Passed | Failed |
| First..... | 16 | 12 | 4 | 23 | 9 | 14 |
| Second..... | 48 | 40 | 8 | 63 | 43 | 20 |
| Third..... | 120 | 88 | 32 | 141 | 101 | 40 |
| Fourth..... | 225 | 165 | 60 | 328 | 224 | 104 |
| Class A..... | 17 | 11 | 6 | 57 | 40 | 17 |
| High Pressure B..... | 6 | 4 | 2 | 15 | 10 | 5 |
| Low Pressure B..... | 79 | 49 | 30 | 92 | 68 | 24 |
| Totals..... | 511 | 369 | 142 | 495 | 224 | 719 |

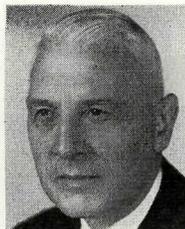
Welders

| | | | | | | |
|--------------------|-------|-------|-------|-------|-------|-------|
| Electric..... | 1,057 | 882 | 169 | 1,382 | 1,105 | 277 |
| Oxy-acetylene..... | 662 | 532 | 136 | 822 | 684 | 138 |
| Down-hill..... | 182 | 172 | 10 | 213 | 190 | 23 |
| A.S.M.E..... | ----- | ----- | ----- | 194 | 194 | ----- |
| Totals..... | 1,901 | 1,586 | 315 | 2,611 | 2,173 | 438 |

D. DENHAM, P.ENG.,
Chief Inspector.



Addition to boiler-house, Essondale.



L. ROBSON, P.ENG.
Inspector of Electrical Energy

Lance Robson was educated in New Westminster, and after graduation attended the Vancouver Technical School for special electrical training and associated courses. He instructed at Trapp Technical School night classes in electrical engineering for six years. He served three years as a member of the City Council at New Westminster and one year on the Greater Vancouver Water Board.

Mr. Robson registered as a professional engineer in 1931 and operated as an electrical contractor for thirteen years. He joined the Department in 1939 as electrical engineer, was made Chief Inspector in July, 1948, and is now Inspector of Electrical Energy for the Province of British Columbia and electrical engineer for the Department of Public Works.

He is Chairman of the Canadian Electrical Code, Part I, Committee, which is a Dominion appointment by Canadian Standards Association.

REPORT OF THE INSPECTOR OF ELECTRICAL ENERGY

BOARD OF EXAMINERS FOR ELECTRICAL CONTRACTORS

The Honourable Minister of Public Works has been pleased to appoint the following members to the Board, effective January 1st, 1958: L. G. Sewell, electrical contractor, representing the Associated Electrical Contractors of British Columbia; R. Beaumont, electrical contractor, representing the Vancouver Electrical Association; and E. Hammersmark, electrical inspector for the District of North Vancouver, representing cities and municipalities. Other members of the Board are L. Robson (Chairman), Chief Inspector of Electrical Energy, and L. Handy, Assistant Inspector of Electrical Energy. Seven meetings were held throughout the year.

The total number of certificates of competency in effect during the year was as follows:—

| | | | |
|--------------|-----|----------------|-------|
| Class A..... | 139 | Class PA..... | 64 |
| Class B..... | 286 | Class PBP..... | 146 |
| Class C..... | 386 | Class PC..... | 311 |
| Total..... | | | 1,332 |

No temporary certificates were issued during the year.

Three hundred candidates for electrical contractors' certificates of competency were examined during the year, with the following results:—

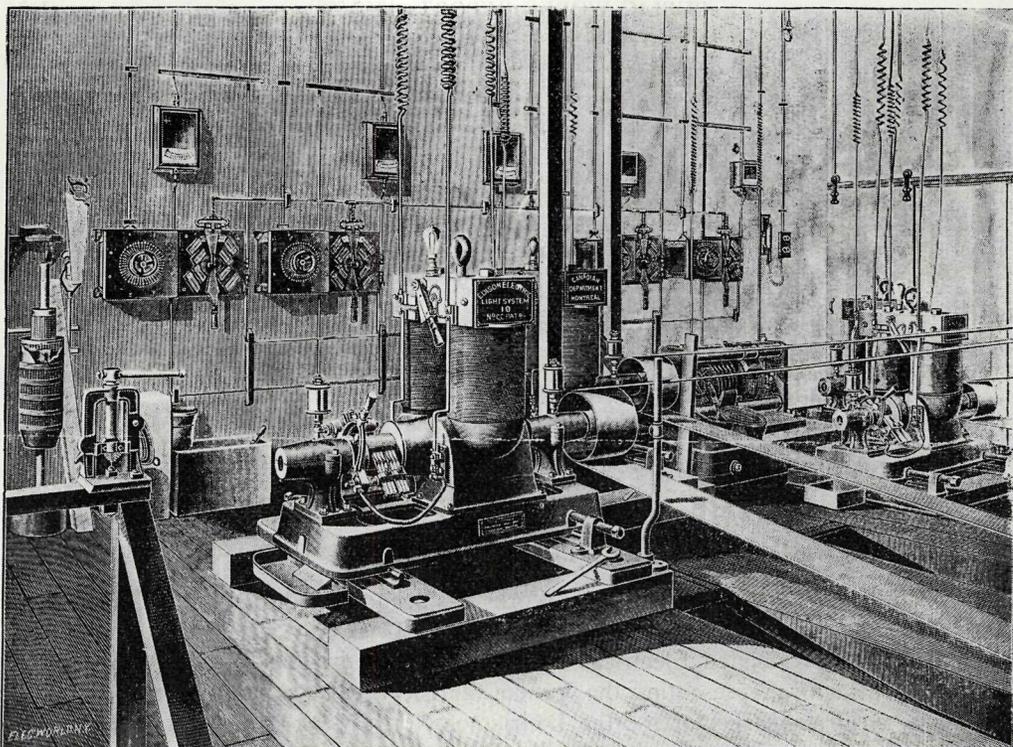
| Class | Number of Candidates | Passed | Failed |
|--------------|----------------------|--------|--------|
| Class A..... | 30 | 15 | 15 |
| Class B..... | 88 | 42 | 46 |
| Class C..... | 182 | 126 | 56 |
| Totals..... | 300 | 183 | 117 |

PERMITS

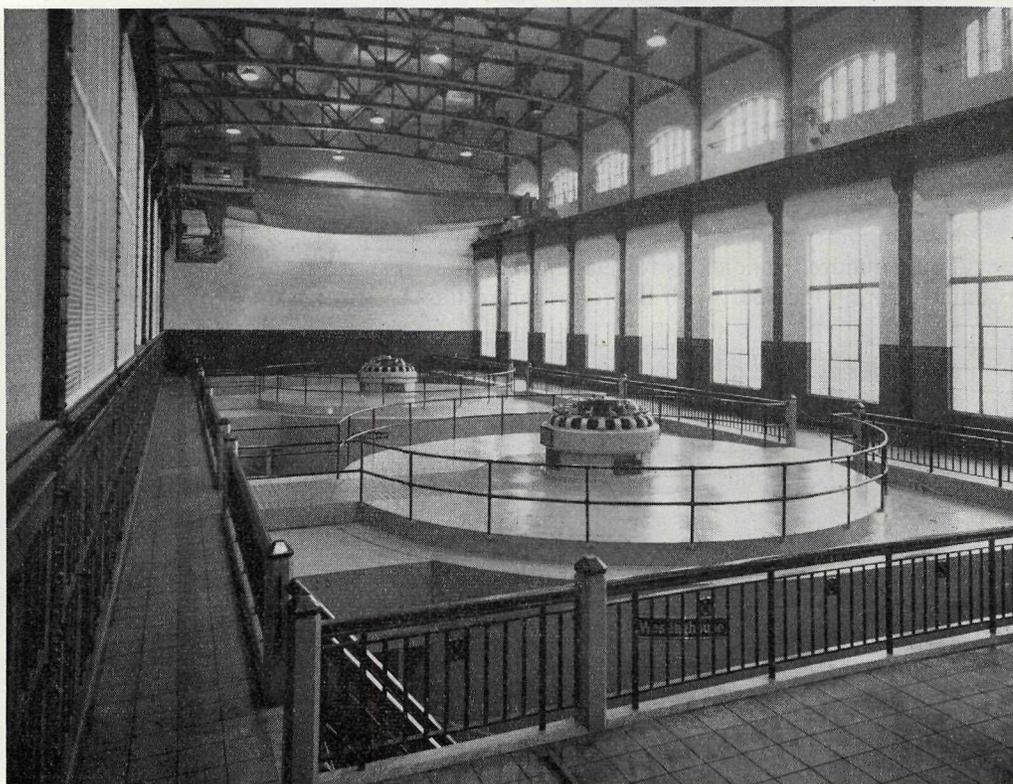
The total number of permits issued during the year was as follows:—

| | | | |
|----------------------|-------|---------------------|--------|
| April, 1957..... | 2,646 | November, 1957..... | 3,464 |
| May, 1957..... | 3,400 | December, 1957..... | 2,557 |
| June, 1957..... | 3,376 | January, 1958..... | 2,775 |
| July, 1957..... | 3,568 | February, 1958..... | 2,548 |
| August, 1957..... | 3,419 | March, 1958..... | 2,662 |
| September, 1957..... | 3,420 | | |
| October, 1957..... | 3,827 | Total..... | 37,662 |

This represents an increase of 4,914 permits or 15 per cent over the preceding year.



Dynamo-room of the Victoria Electric Company central station, 1888.



Ruskin power plant of the B.C. Electric Company, Stave River.

INSPECTIONS

The following is a record of inspections undertaken during the year:—

| Office | Number of Inspections |
|--------------------------------------|--------------------------|
| Abbotsford | 2,950 |
| Alberni | 2,903 |
| Chilliwack | 2,493 |
| Courtenay | 2,470 |
| Cranbrook | 2,576 |
| Dawson Creek | 2,110 |
| Duncan | 2,885 |
| Fort St. John | 1,855 |
| Kamloops | 2,145 |
| Langley | 2,695 |
| Nanaimo | 2,245 |
| Nelson | 2,329 |
| New Westminster | 2,849 |
| Penticton | 2,304 |
| Powell River | 2,584 |
| Prince George (two Inspectors) | 5,190 |
| Prince Rupert | 2,096 |
| Quesnel | 1,748 |
| Richmond | 2,921 |
| Vancouver | 1,079 |
| Vernon | 2,489 |
| Victoria (three Inspectors) | 7,193 |
| Total | 60,109 |

The total number of inspections completed during the year represents an increase of 6,844 or 13 per cent over the preceding year.

A new office was opened at Fort St. John, effective May 9th, 1957. An Inspector was operating from this office full time until November 2nd, 1957. Inspections for this area for the period November 3rd, 1957, to March 31st, 1958, were carried out by the Inspector from Dawson Creek.

Effective May 1st, 1957, inspections for the City of White Rock were undertaken by this Division. This area is now incorporated in the Langley District.

STATEMENT OF REVENUE AND EXPENDITURE

Revenue—

| | |
|---|--------------|
| Regular permits | \$275,392.51 |
| Annual permits | 12,554.71 |
| Certificates of competency | 11,800.00 |
| Public utilities | 11,766.96 |
| Examination fees | 3,895.00 |
| Plan checking | 2,940.00 |
| Sale of publications | 1,581.24 |
| Approval of equipment | 620.91 |
| Collection of social services tax | 69.90 |
| Suspense, pending refund | 1,280.50 |
| Suspense, pending distribution | 18,615.12 |

Gross revenue \$340,516.85

| | | | |
|--------------|---|--------------|--------------|
| | <i>Brought forward</i> | \$340,516.85 | |
| <i>Less—</i> | | | |
| | Suspense refunds | \$1,280.50 | |
| | Revenue refunds | 2,398.50 | |
| | Social services tax | 69.90 | |
| | Suspense | 18,874.89 | |
| | <hr/> | | |
| | Total debits to revenue | 22,623.79 | |
| | <hr/> | | |
| | Net revenue | | \$317,893.06 |
| | Operating expenses (Vote 325, Electrical Energy Inspection) | \$231,581.21 | |
| | Temporary assistance | 22,089.49 | |
| | Expenditure from block vote for salary in- creases, July 1st, 1957, to March 31st, 1958 | 11,504.07 | |
| | <hr/> | | |
| | Gross operating expenses | \$265,174.77 | |
| | <i>Less credit for preparation of plans and specifications on behalf of Chief Architect and Traffic Engineer (J.V. No. 278)</i> | 22,343.00 | |
| | <hr/> | | |
| | Net operating expenses | \$242,831.77 | |
| | Operating surplus | 75,061.29 | |
| | <hr/> | | |
| | | \$317,893.06 | \$317,893.06 |

POLE-LINE PERMITS

The Division, during the year, checked 961 applications for the erection of pole-lines on Crown lands or Provincial highways. This represents an increase of 376 over the previous year. Recommendations on each application were forwarded to the Regional Engineer of the Department of Highways.

PUBLIC WORKS AND HIGHWAYS

The Division, during the year, continued to prepare electrical plans and specifications both for our own Department and the Department of Highways. In addition to the preparation of plans and specifications, supervision was also exercised over each contract during construction. The Division also acted in a consulting capacity to other Government departments.

It was necessary to employ casual assistance to assist in the preparation of these plans and specifications. Such casual assistance was charged against the various projects on which this class of personnel was employed.

ACCIDENTS

There were eighteen accidents recorded during the year. Of these, seven were fatal, which represents a decrease of seven in the number of fatalities reported for the previous year.

May I again express my appreciation for your splendid co-operation and continued interest in our problems and to your Departmental staff for valuable assistance rendered during the year.

L. ROBSON, P.ENG.,
Inspector of Electrical Energy.



A. G. KANEEN, P.ENG.

Chief Gas Inspector

Mr. Kaneen was born and educated in Vancouver, B.C. On graduation he worked for Britannia Mining and Smelting Company at Britannia Beach, B.C., where he earned sufficient money to continue his education at the University of British Columbia. He graduated with a Bachelor of Applied Science degree in mechanical engineering.

After graduating he joined the army and was discharged in 1946 as an officer (E.M.E. 4). He then joined a large engineering firm in the East, returning to Vancouver in 1952 to take up a design engineering position with a consulting engineering firm. In May, 1954, he joined the Civil Service as a Supervising Gas Inspector, and in 1956 he was appointed Chief Inspector of the Provincial Gas Inspection Division, Department of Public Works.

REPORT OF THE CHIEF GAS INSPECTOR

GAS INSPECTION DIVISION

At present the staff consists of the Chief Inspector, eight Gas Inspectors, one Clerk—Grade 3, two Clerk-Typists—Grade 2, and three Clerk-Typists—Grade 1.

Considerable time was devoted to education. Night classes were given in Vancouver, Victoria, Nanaimo, and Abbotsford. Short courses were again held in Quesnel, Williams Lake, Kamloops, Vernon, Kelowna, Penticton, Trail, and Nelson. These short courses were given in conjunction with the gas utility. In all, more than 1,400 persons attended these courses.

Natural gas was distributed for the first time in twenty-seven communities served by the Inland Natural Gas Company Limited and in four more communities served by the British Columbia Electric Company Limited. Vancouver Island Gas extended its distribution into Provincial territory outside the City of Nanaimo.

Effective January 1st, 1958, the American Gas Association approval seal was no longer recognized by this Division. All gas appliances installed in British Columbia now require either the seal of this Division, the British Columbia Research Council, or the Canadian Gas Association.

ACCIDENTS

During the fiscal year there was one explosion in a boiler in the City of Vancouver. There were no injuries or deaths attributed to natural gas.

SUMMARY OF WORK

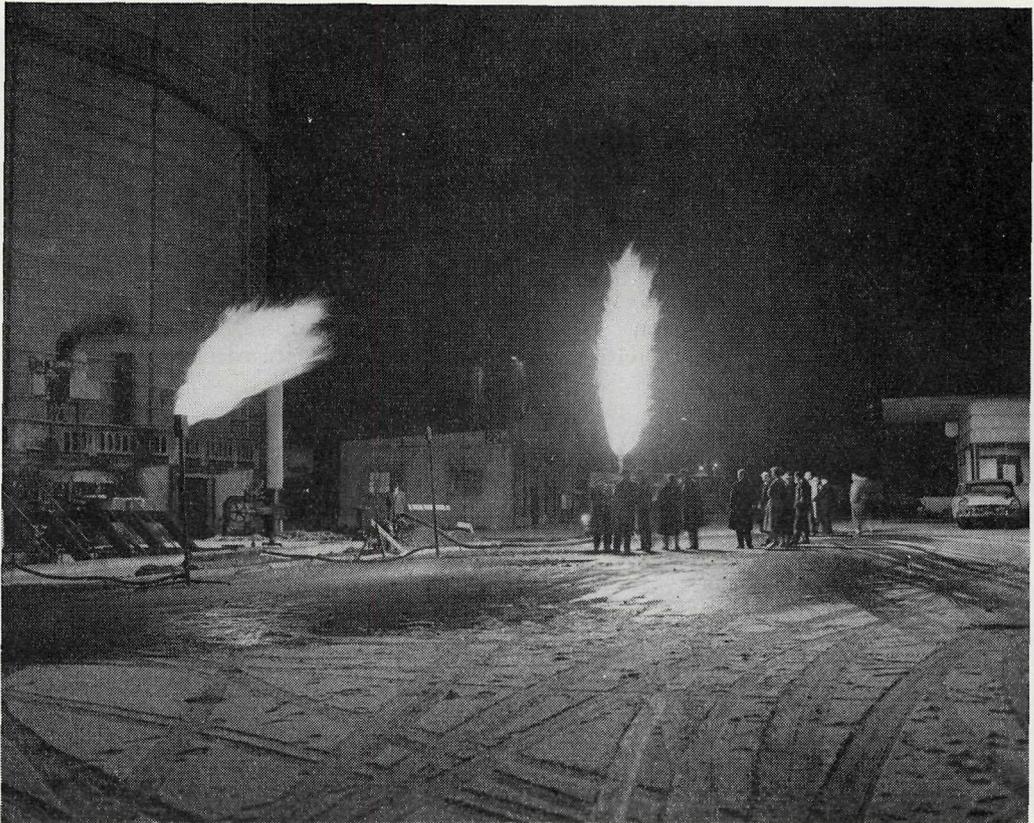
| | |
|---|--------|
| Survey of designs | 30 |
| New designs checked, industrial approval | 203 |
| Gas codes distributed | 1,835 |
| Gas-fitters' licences issued | 1,118 |
| Contractors' licences issued | 593 |
| Provisional licences issued | 1,639 |
| Number of gas-fitters examined | 971 |
| Number of gas-fitters passed examination | 493 |
| Number of gas permits issued, municipalities | 15,793 |
| Number of gas permits issued by this Division | 11,667 |

FEES COLLECTED

| | |
|---------------------------------|------------|
| Examination fees | \$6,519.50 |
| Provisional licence fees | 8,195.00 |
| Contractors' licence fees | 5,396.00 |

| | |
|--|--------------------|
| Gas-fitters' licence fees | 1,305.00 |
| Gas Codes | 917.50 |
| Interim approval fees | 50.00 |
| Industrial approval fees | 985.00 |
| Interim approval seals | 10,620.50 |
| Resale approval tags | 2,603.50 |
| Identification tags | 90.20 |
| Permits | 40,902.50 |
| Survey of designs | 155.00 |
| Application pads | 608.00 |
| Miscellaneous | 89.57 |
| Total revenue | \$78,437.27 |
| Over-all cost of Division to Government | 7,636.36 |

A. G. KANEEN, P.ENG.,
Chief Gas Inspector.



Flares to purge manufactured gas were symbol of arrival of natural gas in Vancouver on November 7th, 1956.

REPORT OF THE DEPARTMENTAL COMPTROLLER

The following pages present the financial report of the Department of Public Works. During the period covered by this report there were no major changes in accounting methods that would result in revised presentation of financial reports, and statements contained herein are in the same form as in previous years.

On October 4th, 1957, the Department suffered the loss of a very able Departmental Comptroller through the death of Mr. J. E. Moore, and this report is submitted on his behalf.

A. E. RHODES,
Departmental Comptroller.

STATEMENT OF EXPENDITURES, FISCAL YEAR 1957/58

SUMMARY

| | | CREDITS (Non-expendable) | |
|---|----------------|-----------------------------|------------|
| Vote 317. Minister's Office— | | | |
| Office | \$296.49 | | |
| Travelling | 1,992.71 | | |
| Salaries | 16,280.00 | | |
| | <hr/> | \$18,569.20 | |
| Vote 318. Administration— | | | |
| Office | \$15,951.07 | | |
| Travelling | 9,443.08 | | |
| Office furniture and equipment | 2,264.24 | | |
| Advertising and publicity | 13.20 | | |
| Printing and publications | 683.81 | | |
| Incidentals and contingencies | 620.00 | | |
| Salaries | 106,188.42 | | |
| | <hr/> | 135,163.82 | |
| Vote 319. Parliament Buildings (Maintenance)— | | | |
| Salaries | \$354,940.33 | | |
| Heat, light, power, and water | 128,137.01 | | |
| Maintenance of buildings and grounds | 160,935.08 | | |
| Installation of new lighting fixtures | 4,016.18 | | |
| Taxes, telephones, etc. | 1,016.58 | | |
| | <hr/> | 649,045.18 | |
| Vote 320. Government House (Maintenance)— | | | |
| Salaries | \$25,626.76 | | |
| Heat, light, power, and water | 5,316.43 | | |
| Maintenance of buildings and grounds | 17,706.55 | | |
| Furniture, supplies, etc. | 1,057.84 | | |
| Taxes, telephones, etc. | 783.11 | | |
| | <hr/> | 50,490.69 | \$1,060.50 |
| Vote 321. Government Buildings (Maintenance)— | | | |
| Salaries | \$1,076,801.79 | | |
| Heat, light, power, and water | 135,767.90 | | |
| Maintenance of buildings and grounds | 1,119,725.18 | | |
| Proportionate costs, Inspector of Electrical Energy | 13,843.00 | | |
| Maintenance of mechanical equipment (heating systems) | 72,140.54 | | |
| Motor-vehicles and accessories | Nil | | |
| Taxes, telephones, etc. | 10,689.21 | | |
| | <hr/> | 2,428,967.62 | 126,120.02 |
| Building maintenance expenditures detailed as follows:— | | | |
| Lockups generally | \$24,355.40 | | |
| Gaols | 25,333.51 | | |
| | <hr/> | \$49,688.91 | |
| Court-houses | 229,300.67 | | |
| Victoria College | 74,597.47 | | |
| Vancouver Deaf and Blind School (Jericho Hill) | 87,237.85 | | |
| Nanaimo Vocational Training School | 16,694.30 | | |
| TB. units and Provincial laboratories— | | | |
| Vancouver— | | | |
| Pearson | \$76,685.82 | | |
| Willow | 15,939.60 | | |
| Child Guidance Clinic | 29,768.14 | | |
| Polio Pavilion | 6,375.58 | | |
| Provincial Health Building | 15,811.83 | | |
| Victoria—Jubilee | 225.46 | | |
| Tranquille Sanatorium and Farm | 199,930.72 | | |
| | <hr/> | 344,737.15 | |
| Mental Hospitals— | | | |
| Essondale | \$604,455.35 | | |
| Colony Farm | 43,880.44 | | |
| Woodlands School (New Westminster) | 201,058.39 | | |
| Saanich Mental Home and Farm | 40,970.82 | | |
| New Vista | 689.79 | | |
| | <hr/> | 891,054.79 | |

STATEMENT OF EXPENDITURES—Continued

SUMMARY—Continued

Building maintenance expenditures—Continued

| | | CREDITS (Non-expendable) |
|--|-------------|-----------------------------|
| Industrial Schools— | | |
| Girls' Industrial | \$9,227.53 | |
| Borstal (New Haven) | 3,326.65 | |
| Brannen Lake School, V.I. | 46,818.89 | |
| | | \$59,373.07 |
| Provincial Infirmaries— | | |
| Home for Incurables (Marpole) | \$6,966.45 | |
| Allco Provincial Infirmary | 13,812.19 | |
| Kamloops Provincial Home | 18,504.08 | |
| | | 39,282.72 |
| Homes for the Aged— | | |
| Vancouver (Port Coquitlam) | \$51,358.65 | |
| Vernon | 40,999.63 | |
| Terrace | 52,016.95 | |
| | | 144,375.23 |
| Kamloops central heating plant | | 70,730.58 |
| Miscellaneous— | | |
| Residences | \$15,710.35 | |
| Garages, etc. | 33,674.54 | |
| Oakalla | 97,061.14 | |
| Sundry buildings | 86,964.31 | |
| Sundry buildings, Vancouver area | 188,484.54 | |
| | | 421,894.88 |
| Gross expenditure | | \$2,428,967.62 |
| Revenue (as per Public Works records) (Credit) | | 126,120.02 |
| Net expenditure | | \$2,302,847.60 |
| Vote 322. Rentals | | \$334,675.35 |
| Net expenditure detailed as follows:— | | \$12,939.10 |
| Agriculture— | | |
| District Agriculturist | \$346.78 | |
| Development and Extension Branch | 5,470.87 | |
| Poultry and Live Stock | 3,481.22 | |
| Horticulture | 1,020.00 | |
| | | \$10,318.87 |
| Attorney-General— | | |
| Motor-vehicles | \$15,866.54 | |
| Probation | 20,139.88 | |
| Sundry Courts | 3,884.22 | |
| Supreme Court Registry | 432.00 | |
| Credit Union | 4,096.39 | |
| Land Registry | 1,080.00 | |
| | | 45,499.03 |
| Education— | | |
| Text-book Branch | \$3,097.58 | |
| Visual Education | 10,874.27 | |
| Adult Education | 5,678.34 | |
| Library Commission | 595.89 | |
| Inspector of Schools and School Services | 11,699.98 | |
| B.C. Centennial, \$4,800 (Recovered) | | |
| | | 31,946.06 |
| Finance— | | |
| Government Agencies | \$5,144.98 | |
| Office of Assessment Commission | 6,900.00 | |
| | | 12,044.98 |
| Health and Welfare— | | |
| Vital Statistics | \$600.00 | |
| Venereal Disease Control | 1,350.00 | |
| Tuberculosis Control (Travelling Clinic) | 2,619.00 | |
| Tuberculosis Control | 2,700.00 | |
| Local Health Services | 66,495.36 | |
| Welfare | 29,748.29 | |
| Dental Division.....\$360 (Recovered) | | |
| | | 103,512.65 |

STATEMENT OF EXPENDITURES—Continued
SUMMARY—Continued

CREDITS
(Non-expendable)

Net expenditure—Continued

| | | | |
|---|------------------------|----------------|--------------|
| Highways— | | | |
| Regional offices | \$19,788.17 | | |
| Site for aircraft hangar | 1,348.50 | | |
| Research and Testing | 250.82 | | |
| Electrical Foreman's Stores | 1,125.00 | | |
| Okanagan Flood-control | | | |
|\$641.01 (Recovered) | | | |
| | | \$22,512.49 | |
| Industrial Development, Trade, and Commerce— | | | |
| Regional Development | | 690.00 | |
| Labour— | | | |
| Inspection and General Offices | | 550.96 | |
| Lands and Forests— | | | |
| Lands Inspection Division | \$2,501.56 | | |
| Surveys and Mapping Branch | 2,107.80 | | |
| Water Rights Branch | 2,107.80 | | |
| Forest Service | 46,476.40 | | |
| Fraser River Board | | | |
|\$6,081.06 (Recovered) | | | |
| | | 53,193.56 | |
| Mines—General Administration | | 4,458.71 | |
| Miscellaneous | \$1,057.03 (Recovered) | | |
| Municipal Affairs—Regional Planning and Building | | | |
| Inspectors | | 684.12 | |
| Provincial Secretary—Registrar of Voters | | 4,724.30 | |
| Public Utilities—Motor Carriers | | 12,065.88 | |
| Public Works—Inspector of Electrical Energy | | 2,140.75 | |
| Recreation and Conservation— | | | |
| Game Branch | \$16,071.09 | | |
| Shell-fish Laboratory | 1,322.80 | | |
| | | 17,393.89 | |
| Net expenditures, Vote 322 (Rentals) | | \$321,736.25 | |
| Vote 323. Gas Division, Vancouver— | | | |
| Salaries | \$30,807.02 | | |
| Office | 8,116.61 | | |
| Travelling | 16,978.88 | | |
| Office furniture and equipment | 3,685.97 | | |
| Printing and publications | 561.89 | | |
| Equipment and machinery | 796.55 | | |
| Motor-vehicles and accessories | 3,882.47 | | |
| | | \$64,829.39 | \$78,275.09 |
| Vote 324. Steam-boiler Inspection, Vancouver— | | | |
| Salaries | \$94,062.00 | | |
| Office | 4,822.72 | | |
| Travelling | 14,674.39 | | |
| Office furniture and equipment | 618.70 | | |
| Printing and publications | 5.25 | | |
| Equipment and machinery | 147.18 | | |
| | | 114,330.24 | 115,467.20 |
| Vote 325. Electrical Energy Inspection, Vancouver— | | | |
| Salaries | \$151,748.54 | | |
| Office | 12,244.49 | | |
| Travelling | 54,592.06 | | |
| Office furniture and equipment | 2,380.87 | | |
| Printing and publications | 4,189.41 | | |
| Equipment and machinery | Nil | | |
| Motor-vehicles and accessories | 6,425.84 | | |
| | | 231,581.21 | 317,590.75 |
| Vote 326. Temporary Assistance | | 127,539.28 | |
| Sub-total, Administration and Maintenance Votes | | \$4,155,191.98 | \$651,452.66 |

STATEMENT OF EXPENDITURES—Continued

SUMMARY—Continued

CAPITAL EXPENDITURES—BUILDINGS

Vote 345. Construction of Provincial Buildings

| Proj. No. | | |
|-----------|---|--------------|
| 289-B. | General expense, planning, survey supplies, etc. | \$141,532.28 |
| 242-B. | Abbotsford Agricultural Building | 108,860.78 |
| 299-B. | Vocational Training School, Burnaby | 202,881.32 |
| 297-B. | Cafeterias, Douglas Building and Michigan Street | 1,433.93 |
| 152-B. | Child Guidance Clinic and Day Hospital, Burnaby | 52,024.82 |
| 6-B-27. | Calf barns, new metal pens, Colony Farm | 33.80 |
| 271-B. | Ten-bay garage, Cranbrook | 127,078.69 |
| 235-B. | New library, Dawson Creek | 2,429.87 |
| 79-B-1. | Deaf and Blind School, Vancouver | 10,578.87 |
| | Essondale— | |
| 5-B-21. | 100-bed nurses' home and training centre | 433,163.31 |
| 5-B-52. | Fire-alarm system, Crease Clinic and Home for the Aged | 893.97 |
| 5-B-53. | 300-bed unit, Home for the Aged, Port Coquitlam | 1,002,737.68 |
| 5-B-65. | Two new boilers, auxiliary equipment, and addition to power-house | 947,604.66 |
| 5-B-82. | Water-supply system | 27,082.35 |
| 5-B-88. | Public Works stores building and storage compound | Nil |
| 5-B-100. | Rehabilitation centre for male patients from Essondale at West Thirteenth Avenue, Vancouver | 10,303.16 |
| 5-B-101. | New substation and overhead circuits | 122,486.61 |
| 5-B-102. | Alterations and renovations to kitchens, storage and staff changing rooms | 18,084.63 |
| 5-B-107. | Replacement of 42-inch storm-sewer and other drains | 49,816.73 |
| 5-B-112. | Steam and return lines from Home for the Aged No. 1 to 300-bed unit | Nil |
| 236-B. | Court-house, Fort St. John | 6,861.59 |
| 208-B. | Girls' Industrial School, Burnaby | 1,154,592.01 |
| 123-B. | British Columbia Correctional Institution, Haney | 1,151,029.71 |
| 205-B. | Government Office Building, Kamloops | 141,804.94 |
| 245-B. | Equipment-shed, Kamloops | 42,656.20 |
| 293-B. | Renovations, Legislature | 10,812.88 |
| 270-B. | Ten-bay garage, Lillooet | 146,397.66 |
| 202-B. | New wing to Court-house, Nanaimo | 14,915.78 |
| 231-B. | Expansion to Vocational Training School, Nanaimo | 1,228.06 |
| 294-B. | Purchase of residence, Department of Highways, Nelson | 15,849.00 |
| 300-B. | New boiler-house, New Denver School | 108.76 |
| 290-B. | New Government House | 15,422.97 |
| 273-B. | Heating and ventilating of gymnasium, Borstal School, New Haven | 16,318.21 |
| | Oakalla Prison Farm— | |
| 39-B-18. | South Wing fence, continuing down Royal Oak Avenue around property | 13,340.16 |
| 39-B-20. | Office accommodation, Drug Research | 1,971.82 |
| 39-B-21. | Renovation of hospital operating-room, doctors' offices, etc. | Nil |
| 39-B-26. | Main retaining-wall, Westgate | 3,219.37 |
| 39-B-27. | Remodelling South and West Wing, Seg- regation, Isolation, etc. | 4,167.47 |
| 39-B-31. | Stand-by electrical service | 639.95 |
| 39-B-33. | Addition to Young Offenders' Unit, sheet-metal plant | 834.08 |
| 39-B-34. | Ventilating system, Westgate | 7,838.28 |
| 39-B-35. | Additions and alterations to Women's Gaal | 137,029.58 |
| 39-B-41. | New kitchen, Young Offenders' Unit | 11,580.13 |

STATEMENT OF EXPENDITURES—Continued

SUMMARY—Continued

CREDITS
(Non-expendable)

CAPITAL EXPENDITURES—BUILDINGS—Continued

Vote 345. Construction of Provincial Buildings—Continued

| Proj. No. | | | |
|-----------|---|--------------|----------------|
| | Oakalla Prison Farm—Continued | | |
| 39-B-42. | Renovations to old chapel | \$2,382.96 | |
| 39-B-43. | Building of area between Central Hall east and West Wing for Classification and offices | 5,148.95 | |
| 39-B-45. | Sewage-treatment plant | 44,789.61 | |
| 39-B-47. | Tunnel from West Wing to new gymna- sium, including fencing and lighting ... | 10,893.47 | |
| 39-B-48. | Replacement of roof on Main Gaol | 13,945.00 | |
| 39-B-49. | Steam-line, Women's Gaol | Nil | |
| 280-B-1. | Alterations to Treasury, Parliament Build- ings | 6,000.00 | |
| 280-B-2. | Rewiring and lighting, Parliament Build- ings | 3,000.00 | |
| 292-B. | Structural changes and renovations, Parlia- ment Buildings | 32,234.81 | |
| 201-B. | New Court-house, Prince George | 1,236,209.69 | |
| 257-B. | Equipment-shed, Port Clements, Queen Charlotte Islands | 13,191.27 | |
| 298-B. | Temple Building, 525 Fort Street, Victoria | 48,918.19 | |
| 24-B-1. | Water-supply, Home for the Aged, Terrace | 3,968.10 | |
| 178-B-2. | Purchase of land for extension of Victoria College | 60,988.00 | |
| 178-B-3. | Alterations to Victoria College, Victoria ... | 9,425.82 | |
| 200-B. | Victoria Capital Regional Planning (acqui- sition of property) | 34,687.15 | |
| 211-B. | Materials and Traffic Engineers' office and shops, Victoria | 14,790.13 | |
| 291-B. | Parking area, Willow Chest Centre | 7,500.00 | |
| 7-B-21. | 300-bed unit, Woodlands School | 45,688.82 | |
| 7-B-26. | Auditorium, Woodlands School | 217,019.94 | |
| 302-B. | Renovations, 321 Menzies Street, Victoria | 4,365.39 | |
| 303-B. | Renovations, 516 Michigan Street, Victoria | 10,101.88 | |
| 301-B. | Purchase of Swedish Rest Home, North Vancouver | 137,000.00 | |
| | | | \$8,089,049.31 |
| | | | \$408,263.01 |

"B.C. Loan Act, 1951," Sec. 3 (a): Buildings

| | | | |
|--------|--|-------------|-----------|
| 258-B. | Equipment-shed, Tête Jaune | \$10,000.00 | |
| 281-B. | Equipment-shed and yard, Houston | 10,000.00 | |
| 295-B. | Honeymoon camp, John Hart Highway ... | 21,211.80 | |
| 296-B. | Good Hope maintenance camp | 10,000.00 | |
| | | | 51,211.80 |

"B.C. Loan Act, 1952," Sec. 3 (c): University

| | | |
|---|----------------|-------------|
| Medical Faculty and Pathological Building, Vancouver General Hos- pital, for use of the University of British Columbia | 208,152.48 | |
| Sub-total, capital votes | \$8,348,413.59 | *408,263.01 |

Special Warrant No. 32

| | | |
|---|-----------------|----------------|
| Rent, alterations, decorations, and furnishing premises in Central Building for Honourable G. McG. Sloan | 6,562.89 | |
| Grand total, Public Works Department expenditures | \$12,510,168.46 | \$1,059,715.67 |

* Federal grants received for the following in Vote 345 (Construction of Provincial Buildings):—

| | | |
|-------------------|--|-------------|
| Proj. No. 5-B-21. | Essondale nurses' home and training centre | \$76,702.50 |
| Proj. No. 5-B-53. | Home for the Aged, Port Coquitlam | 108,000.00 |
| Proj. No. 7-B-21. | 300-bed unit, Woodlands School | 141,060.51 |
| Proj. No. 31-B. | Pearson Tuberculosis Hospital (additional item of \$37,125 received, but this shown by Finance Department to clear accounts receivable) | 82,500.00 |

\$408,263.01

Government House,
Victoria, Vancouvers Island,
7th May, 1859.

To the Speaker and Gentlemen
of the House of Assembly.

I have received a communication from your Speaker dated on the 4th of this present month, conveying a Copy of a Resolution which had passed the House on that day to the following effect,

"That, as His Excellency the Governor has determined on removing some of the Government offices from a central position of the Town to the south end of it as well as having a Bridge constructed 800 feet in length leading thereto, the erection of which and removal of Government offices has not been brought before the people for their consent, therefore this House protests against the action adopted by His Excellency and declares the same to be unconstitutional and a breach of privilege."

"(Mr. Yates)"

I have to inform the House in reply to the Subject of that Resolution, that it has been determined to erect certain buildings, to serve as public offices for the Colony, on the South side of Victoria Harbour, and to connect them by means of a Bridge over James' Bay with Government Street, so as to render them of convenient access to the public.

I have resorted to that measure simply because such offices had not been provided by the Colony, and because they are pressingly wanted for the public service; and the south side of Victoria Harbour has been selected as the site whereon they are to be erected, on account of its being airy, spacious, and convenient, and acquired without expense. While by isolation from the Town, it is in a great measure secured against the danger of conflagration, and because it is impossible to procure a site of extent sufficient for the purpose, in the centre of the town without incurring an enormous outlay of money.

I did not think it necessary to consult the House concerning the erection of those buildings for the reason that the House was not called upon to defray their cost and because the House has, on all occasions, declined to take any responsibility in such purely executive matters, or (with one exception) to provide funds for any Colonial improvements whatever.

Thus the support and maintenance of places for public worship, of the Colonial Schools; the salaries of the Clergymen and Teachers; the Construction of Roads; the erection of the Police Courts, of the Custom House and other public edifices; the establishment of a Police Force; the administration of Justice; and all other measures providing for the public safety and convenience, have been thrown entirely upon my hands, without any pecuniary aid or assistance from the House of Assembly.

I will remind the House of Assembly of the reply to a message from me dated on the 9th of August last, representing the insufficiency of the Public Jail, and requesting their aid in providing better prison accommodation, and for the erection of an Hospital for the relief of the indigent sick.

The House on that, as on other occasions, did not grant the desired aid, and threw the entire onus of erecting such buildings on the Executive.

In respect to the expense of the Public offices now required, I have made a demand on the Agent and representative of the Hudsons Bay Company, the proprietors of Vancouvers Island, to provide the necessary funds; and he has agreed to defray all expense of erecting such buildings.

I have also to remind the House of Assembly that the building now occupied as a Government office, as well as that used for the Land Office, are the property of the Hudsons Bay Co. and that those buildings have not been removed, as the Resolution of the House may be understood to imply; but merely surrendered to the Agent of that Company, on his undertaking to provide for the erection of other buildings for the Public Offices of the Colony.

The offices immediately required are; a Treasury with fireproof vault; a Barracks for the Military Guard; a Land Office; an office for the Registrar of Deeds and Conveyances; an office for the Colonial Secretary; a House for the Legislative Assembly; a Supreme Court; an official Residence for the Governor; and other buildings of inferior importance.

A moments consideration will satisfy the House that no site sufficiently spacious for the location of so many buildings, is obtainable in the centre of the town, without involving a very large outlay of money in buying out the rights of the present holders of land, which is now selling on Yates Street at the rate of £21 Sterling a front foot, and that it would be neither proper nor judicious to pack the Public Offices of the Colony into a confined space without regard to arrangement and to the proper distribution of air and light.

The site which I have selected for the location of those buildings is recommended by many advantages; it being dry, airy and spacious, containing 10 acres of land, having a cheerful aspect; an extensive view; and being a public reserve, is acquired without expense. I propose to concentrate the

Public offices on that spot after a plan laid out on the most approved principles for health, convenience, and ornament.

The only objection made to the site when the question was debated in Council, was its distance by the circuitous street around James' Bay from the centre of the Town; and, as that would no doubt, have been felt as a serious inconvenience, in order to remove it I agreed to the construction of a Bridge as an extension of Government Street.

The erection of the Bridge has been contracted for at an expense of Three Thousand Five Hundred Dollars, or about Eight Hundred pounds, which does not exceed the value of half a building lot in the Centre of the Town.

I have further to observe that no part of the expense of those buildings has been provided for by the House of Assembly, or out of any monies which have been raised by their means, the whole cost being in the first place provided for by the Hudsons Bay Company, and having ultimately to be borne by the Crown; therefore the whole establishment will remain the property of the Crown 'till otherwise disposed of.

I would further remark for the information of the House that the Crown may lawfully construct Bridges, in any situation where they do not interfere with private rights and are conducive to public convenience, and I presume the House is not disposed to question that right.

Disclaiming any intention, and assuming no right, to question the opinion of the House as to the nature and extent of its own privileges, I have entered into the explanations herein given, to prove that the course I have in this case, pursued, was dictated by necessity, implies no discourtesy to the House; was founded on precedent; violates no Constitutional Law; and is admitted on all sides to be of great public advantage.

(Signed) James Douglas.

Mr. Pemberton moved that on Tuesday the 17th instant at 11 o'clock a.m. the House go into a Committee of the whole to take His Excellency's message into consideration.

Seconded by Mr. Skinner, and agreed to.

(See inside front cover for excerpts from original text.)

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in right of the Province of British Columbia.

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