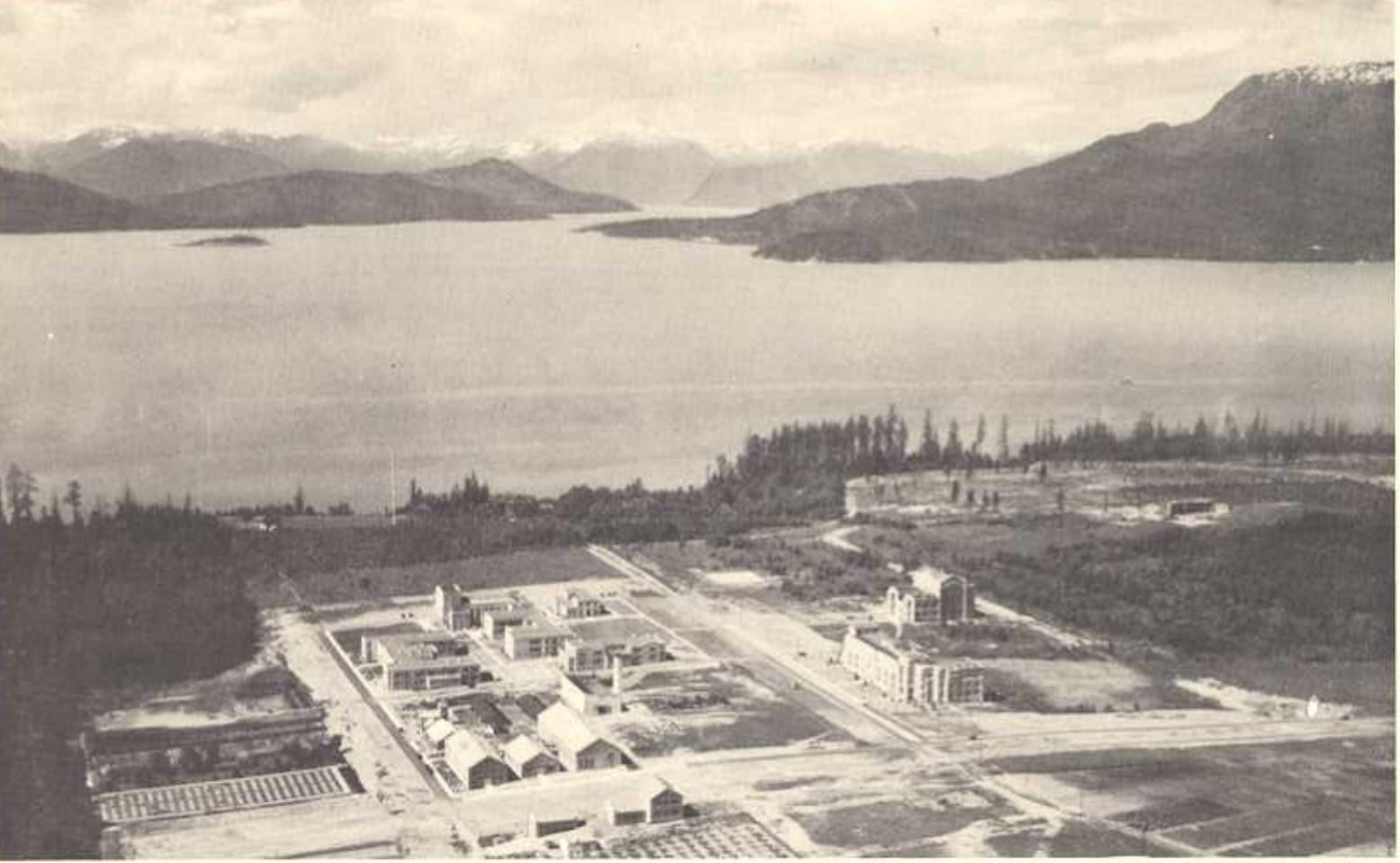
THE UNIVERSITY
of
BRITISH COLUMBIA

TWENTY-FIRST
ANNIVERSARY

1915-1936



Courtesy Canadian Airways Limited

The Campus from the Air

The

UNIVERSITY OF BRITISH COLUMBIA

History

THE idea that British Columbia should have a university of its own was first officially recognized in 1877. In that year John Jessop, Provincial Superintendent of Education, declared in his annual report that a university would speedily become a necessity if the young men and women of British Columbia were to be "fully prepared for the various avocations of youth without going to other provinces and countries for the purpose of graduating in arts, law, and science." Since the Province at that date had a white population of less than 25,000, it is not surprising that Mr. Jessop's declaration met with no response for a very long time. At last, in 1890, the Legislature passed a University Act; but this, too, brought no direct result.

In order, however, that the young people of the Province might be able to obtain some at least of the benefits of a college education, the High Schools of Vancouver and Victoria were in 1898 affiliated with McGill University. This arrangement provided that the first year work of the latter institution in Arts might be taken in British Columbia. In 1906 a further step was taken. The Province granted letters of incorporation to the Royal Institution for the Advancement of Learning, a local board whose task was the supervision of the McGill University College of British Columbia. This College, during the years from 1907 to 1915, enabled several hundred young men and women to enjoy some of the advantages of a higher education, which might otherwise have been denied them. At first they were permitted to take two years of the Arts course or one year in Applied Science for credit at McGill; but before the end of the period named an additional year's work in each course was made available. In 1907 Victoria College, which had been affiliated with McGill since 1902, also came under the Royal Institution and then extended its one year of work in Arts to two.

In the meantime interest in the idea of a Provincial University was growing. In 1907 an Act was passed endowing the University with two million acres of Crown lands; and in the following year a new University Act was passed, repealing the old Act of 1890 and establishing and incorporating the University of British Columbia. Early in 1910 the Government appointed a group of distinguished educationalists from outside the Province to consider the vexed question of a site for the new University. This commission spent the summer in touring the Province and weighing the merits and claims of various proposed locations. In the autumn they presented a report recommending the present site at Point Grey as the most suitable. In 1912 the Government called for competitive plans for the buildings, and a Committee of Assessors selected those submitted by the present University architects. In the same year the first Convocation of the University elected as Chancellor the late Mr. F. L. Carter-Cotton, who had been acting as Chancellor of the Royal Institution for the Advancement of Learning. Convocation also elected fifteen members to the first Senate. In 1913 a President was appointed by the Government, in the person of the late Dr. F. F. Wesbrook, a distinguished Canadian, whose brilliant work in Public Health and Bacteriology had earned for him the Deanship of the College of Medicine and Surgery in the University of Minnesota. The Government also appointed the first Board of Governors and three members of the new Senate. In the same year a Consulting Commission, consisting of a landscape architect, a consulting architect, and an engineer, was appointed to act in co-operation with the University architects for the purpose of examining and reporting "upon the general design for the University." The plans drawn up by them have been followed in the main in all subsequent work on the site. Steps were also taken to create the nucleus of a faculty and staff. Clearing operations were undertaken at the site, and in 1914 work was begun on the Science Building. But the outbreak of the World War put a stop to the ambitious plans for building and development at Point Grey. It was not considered wise to proceed with these at the moment, and the monies which had been appropriated for the purpose reverted to the Provincial Treasury.

So imperative, however, was the need for a Provincial University that, in spite of scanty funds, the University of British Columbia at last opened its doors as an independent institution on September 30, 1915. It was housed on the Fairview property of the Vancouver General Hospital in buildings

which had been used by McGill University College since 1912 and which the University was to occupy longer than it anticipated. The College now automatically went out of existence; but its students and staff formed a sound nucleus for the new institution. Of the "originals" of 1915 two now hold the rank of Emeritus Professor and almost a dozen are still in service.

Before the University began instruction there had been five years of careful planning and preparation by the Government. And Dr. Wesbrook had spared no effort to see that the foundations for a seat of higher learning were well and truly laid. The World War checked most of his projects. From 1915 to 1918 the University carried on with a small budget, a bare nucleus of staff, and a student body almost entirely depleted of men because of the war. Then, just before the Armistice, Dr. Wesbrook died, like Moses, permitted only to gaze into the promised land. He was succeeded by Dr. L. S. Klinck, the first Dean of Agriculture, who had been his right-hand man during his last illness, and who has ever since directed the institution. In the same year the University lost its first Chancellor, Mr. F. L. Carter-Cotton. He was succeeded by Dr. R. E. McKechnie, who is still in office.

In spite of cramped quarters and inadequate equipment, the standard of work was high from the very beginning. The desire that the standard set should match those of other universities did not, however, lead to slavish imitation. An example of this independence was the requirement that students intending to enter Applied Science should take First Year Arts or its equivalent—a requirement setting a precedent in Canada. And the University was the first in Canada to accept Matriculation without Latin.

The temporary buildings in Fairview soon proved utterly inadequate for the University's rapidly growing needs. The enrolment increased from 379 in 1915 to 1451 in 1924; but it had become evident even before this last date that the institution could not long continue to carry on its work in Fairview. In 1920 hope was aroused that the Government might be contemplating a removal to the site in Point Grey. In that year the two million acres which had been granted as an endowment in 1907 were surrendered by the University in exchange for a tract of some three thousand acres immediately adjoining the site and lying between it and the City of Vancouver. But apparently there was no intention of moving the University to its site. Then in 1922 the students of the institution, exasperated by what seemed to them intolerable conditions, organized a publicity

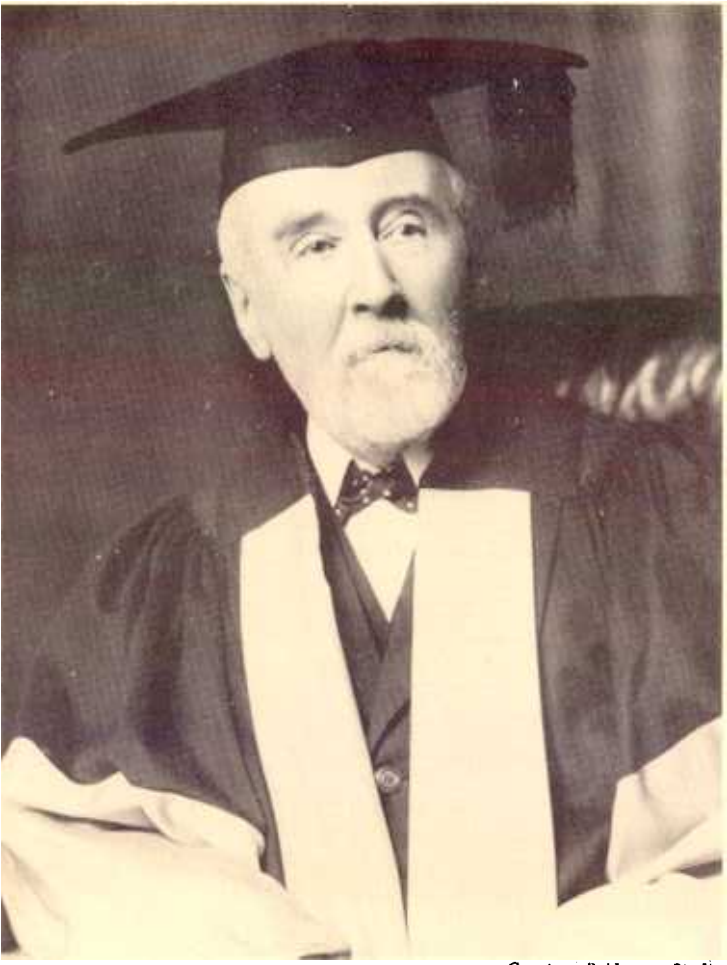
campaign on a vast scale, for the purpose of impressing the need for action, not only upon the Government, but also upon the people of the Province. To what extent, if at all, this demonstration may have influenced the Government it is impossible to say. It was in any event very gratifying to the whole University when in the following year, 1923, the Minister of Education laid the corner stone of the Science Building, a structure that had remained a gaunt skeleton during the war years, and building was resumed. At last, as the student paper jubilantly announced, the state of the Provincial finances had enabled the Government "to see the Point."

The buildings were ready in 1925. The last Congregation at the old Fairview site was held in May. But the last actual classes to be conducted were those of the Summer Session of 1925. In October the University celebrated its installation in its new quarters by conferring its first honorary degrees. Among the recipients was Dr. H. E. Young, during whose term as Minister of Education the University had come into being and the first vitally important decisions with regard to the organization and the character of the institution had been made.

The enrolment continued to mount at an alarming rate, until in the session 1930-31 it had reached a total of 2044. This number seriously overtaxed not only the equipment, but actually also the capacity of classrooms, reading rooms and laboratories, since these had been designed for not more than 1500 students. It looked as if the Fairview experience would be repeated; and accordingly in 1931 a limitation was imposed upon the enrolment. Fortunately this limitation has never had to be enforced, except in certain departments, because in that year the Vancouver High Schools took over the work of Senior Matriculation and thus reduced enrolment in the Freshman Class. The period of financial depression followed and this reduced enrolment still further. In 1933-34 it had dropped to 1606. It is rising again, and the 1880 students now in attendance (1935-1936) are again subjecting the fabric of the institution to serious strain. Perhaps it may once more be necessary to limit registration.

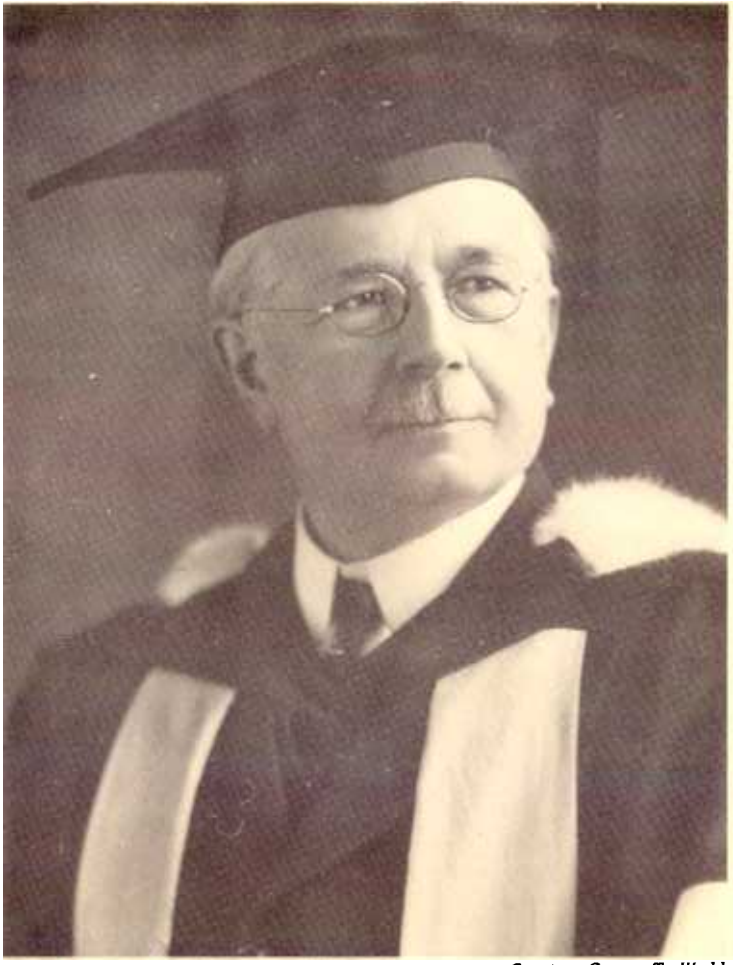
A most important change in the constitution of the University was made in 1935 when an amendment to the University Act gave the Senate, and thus indirectly Convocation, the power to elect three members of the Board of Governors. The change is important because it establishes a new principle of University government.

This narrative would be incomplete without a reference at least to the many friends of the University throughout the Province—organiza-



Courtesy Bridgman Studio

The Late Mr. F. L. Carter-Cotton
Chancellor, 1912–1918



Courtesy George T. Wadds

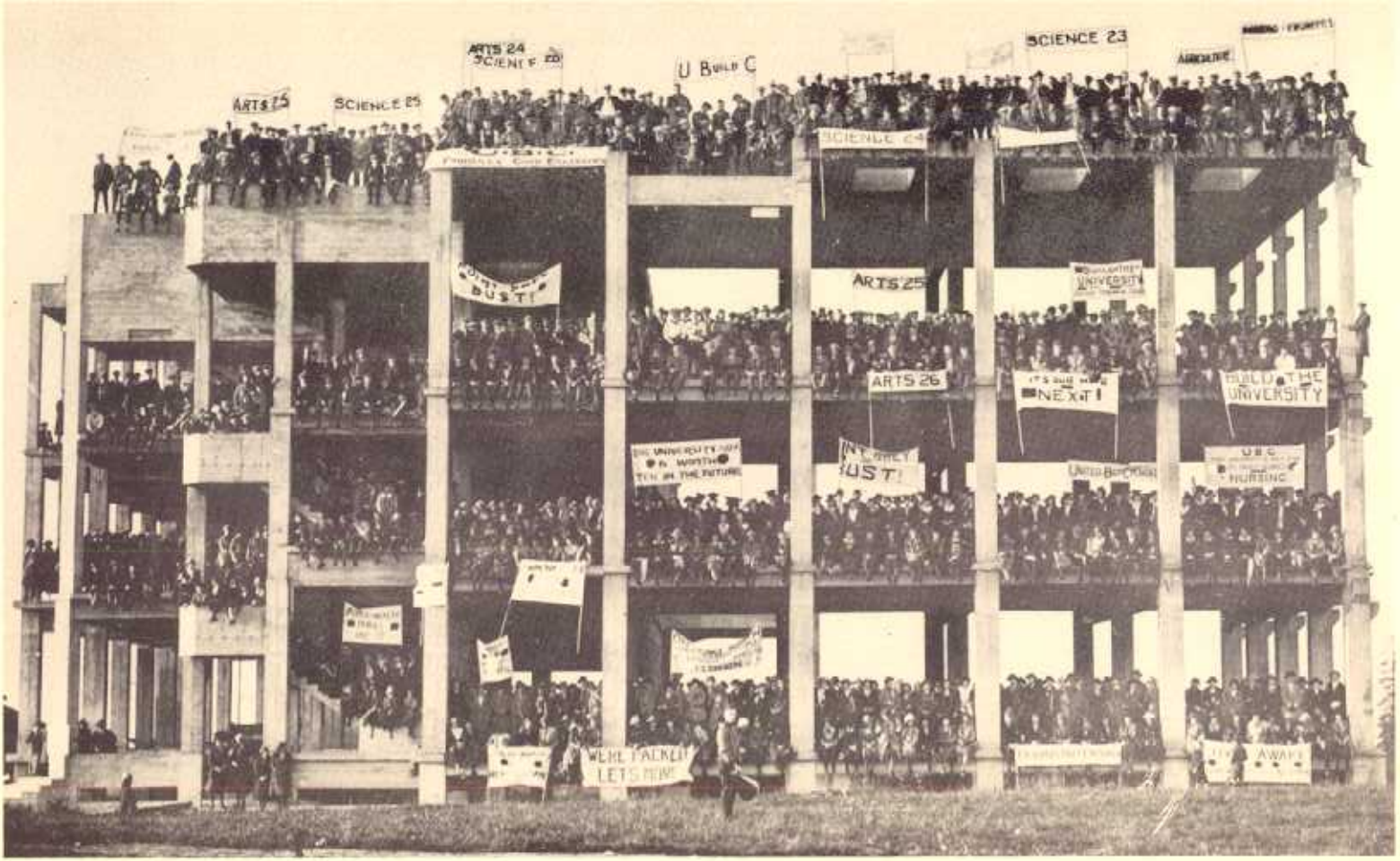
Dr. R. E. McKechnie
Chancellor Since 1918

The Late Dr. F. F. Wesbrook
President, 1913-1918

Dr. L. S. Klinck
President Since 1918

The University at Fairview, 1915–1925

Courtesy Leonard Frank



The Student Campaign 1922

tions and societies of various kinds, as well as individual persons. These have generously donated not only medals, prizes, bursaries, scholarships, fellowships, and endowments, but also books, periodicals, records, and other collections of great scientific interest and value. These friends are so numerous that even a list of their names would be too long for insertion in such a book as this.

Like all similar institutions the University of British Columbia has suffered severely from the world-wide financial depression. In 1932 the Government decided that it had no alternative but to make a cut of over fifty per cent in the University appropriation. This was a staggering blow to a young institution that had not had time to establish itself firmly. Every department felt the impact. Supplies and equipment were everywhere reduced; all undertakings had to be curtailed, and some, discontinued; a great many courses had to be dropped from the curriculum; and several members of the staff had to be dismissed. But there is no reason to doubt that when financial conditions improve in the world at large, the University will continue its progress. It has in fact already entered upon a period not only of recovery, but also actually of expansion.

AFFILIATED COLLEGES

THE institutions affiliated with the University are three —Victoria College, which is undenominational, and two theological colleges of the Anglican and United Churches of Canada. Both of these last are now situated on the Campus.

In 1902 Victoria High School was affiliated with McGill University for the First Year in Arts under the name of Victoria College. Five years later it came under the control of the newly created Royal Institution for the Advancement of Learning as part of the McGill University College of British Columbia. It then had power to give courses in the first two years in Arts. When the University began work in 1915, Victoria College ceased to exist. In its last year in affiliation with McGill it had an enrolment of seventy students.

In 1920 this College was re-established in affiliation with the University of British Columbia. Although it occupied part of the Victoria High School building, it had no administrative connection with that institution. One year later the present building, Craigdarroch Castle, which is situated at one of the highest points in the beautiful residential district of Victoria, was rented by the Board of School Trustees for the use of the College. In 1927 it was bought by the city.

The Anglican Theological College of British Columbia was incorporated in 1912, bringing into affiliation with itself Latimer Hall, which had been established in 1910, and St. Mark's Hall, which had been established in 1912. The two halls were merged by agreement in 1920. In the following year the College was affiliated with the University of British Columbia, which allows certain theological subjects to be taken as options for courses in Arts. The College moved to the Campus in 1927, where the present building, half stone and half roughcast, had been erected in a modern adaptation of the Tudor style of Collegiate Gothic.

The Union College of British Columbia represents a merging of three streams of theological education coming down through a period of forty-three years. In 1893 Columbian College was opened by the Methodist Church in New Westminster. In 1908 Westminster Hall was established in Vancouver by the Presbyterian Church. In 1923 Ryerson College was set up, also in Vancouver; and took over the theological work formerly carried on by Columbian College. In that year also the Anglican Theological College, Westminster Hall, and Ryerson College joined in a scheme of co-operation which still continues successfully. In 1914 the Congregational College of British Columbia was incorporated. Then, finally, in 1927, two years after Church Union, this College, Westminster Hall, and Ryerson were amalgamated under the name of the Union College of British Columbia. The first unit of the College building was opened in 1927, and in 1934 the Library was erected. The completion of this second unit is expected in the near future, as well as the erection of a College Chapel.

SITE

THE University stands upon a headland which rises about three hundred feet above the sea. The site is separated from the water by a steep bluff, crowned in places with heavy forest growth. In selecting this site, the Commission of 1910 appears to have been guided in the main by three considerations: the great beauty of the setting; the proximity of the area to the largest centre of population in the Province; and the fact that, since there is open water on three sides, this area can never be surrounded by the city, no matter how large Vancouver may become.

The setting is indeed magnificent. To the north, across English Bay and Burrard Inlet, rise the rugged Coast mountains, which are covered with snow during a great part of the year. On the west and south are the waters of the Gulf of Georgia. The view across the sea on a clear day is superb,

taking in as it does not only the promontories and wooded islands of the nearer Gulf, but also the sharply-edged peaks of the Vancouver Island range nearly one hundred miles away. To stand at the edge of the cliff and watch a great white liner slowly entering Vancouver Harbour or a freighter outward bound, her deck cargo of British Columbia lumber gleaming in the sun, is an experience that should arouse the most apathetic from a self-complacent insularity. The students of the University may be pardoned, surely, when they say that the world's highway runs just below their classroom windows.

The second point is also of the greatest importance. The University has at its very doors what is in effect a huge laboratory, and in this laboratory every class in the institution is free to work. Surroundings which include mountain and sea, river and forest, as well as a great city, furnish exceptional facilities for field work in both the pure and the applied sciences. Within a few hours journey from the University are smelters, coal mines, logging camps, sawmills, pulp and paper mills, hydro-electric installations, grain elevators, as well as some of the largest metal mines and one of the largest ore-reducing plants in the British Empire. The location is likewise well adapted for investigations in agriculture. The soil in the immediate vicinity is typical of heavily timbered upland coast soils, and close at hand are the rich alluvial lands of the Delta. Students in Agriculture enjoy the further advantage of being within easy reach of meat packing houses, milk depots and condensers, and fruit and vegetable canneries. The close proximity of Vancouver is also a great asset for technical and industrial study. Vancouver is the commercial centre of the Province, the terminus of several trans-continental railways, and a rapidly growing world port, the largest British port in fact on the west coast of the Americas. Many industrial plants, which are thus close at hand, are generously opened to students in Engineering for study and demonstration. Here, too, are the largest hospitals in the Province. These at the moment are giving excellent opportunities for training to students in Nursing and Public Health. In the future, when a Faculty of Medicine is established, these hospitals will be invaluable. Similarly, the students in some future Faculty of Law will have within easy reach the largest Law Courts in the Province. Students in Economics, Sociology, and Social Welfare have at their disposal not only the materials for study that are ordinarily available in a large city, but also those found only in a Pacific port where Orient and Occident meet. The large and varied elementary and

high schools in the city provide the students in Education with abundant facilities for observation and practice teaching. Finally, Vancouver is rapidly becoming a cultural centre of some importance; and the students of the University are thus being given greater and greater opportunities for cultivating drama, art, and music.

The plans of grounds and buildings drawn up by the Consulting Commission of 1913 are grandiose in conception and design. The Commissioners declared in their report that it had been the central purpose of their study to determine upon right fundamentals. "The University of British Columbia is here conceived as an institution of the first order whose scope shall be co-extensive with the educational needs of the Province. This involves provision for a State University comparable in the range and magnitude of its activities to the seats of learning of any country in the world." The plans accordingly look not only to the present but also to the remote future needs of the Province. If the plans are followed, the normal growth of the institution need never be obstructed by the overcrowded conditions and the haphazard development that have hampered progress in most other universities. The plans are so comprehensive that they ensure for the future a well proportioned and harmonious development.

THE University site comprises in all an area of 548 acres. Of this area about one half constitutes the Campus proper, the remainder being divided among gardens, farm lands, and a forest reserve.

CAMPUS

THE Campus is being developed from the unpromising stump-land left by the logger's axe, to give a pleasing and effective setting to the buildings, that shall be in keeping also with the natural beauty and grandeur of the surrounding sea and rugged mountains. In the planning and planting of the Campus every effort has been made to achieve a harmony in design and materials which will blend with the formal lines of architecture, walks and roads. Rolling lawns, rockeries, and water gardens have been used to beautify the less formal areas.

The Botanical Gardens of the University were the first to be established in Canada. They were inaugurated by the Provincial Government in 1912 to bring together the native plants of British Columbia, and to serve as a nucleus for the University Botanical Gardens later on. They cover an area of approximately five acres and comprise the following: the Systematic Garden, which contains nearly one thousand varieties of

native plants, including dry belt, alpine, and coast species, arranged according to families in phylogenetic order, in a series of fifty large beds separated from each other by four feet of lawn; the Native Aboretum, containing specimens of nearly all the trees and shrubs of British Columbia; the Medicinal Garden of native and imported plants that are used for medicinal purposes; the Exotic Garden, containing plants introduced from botanical gardens in many parts of the world; the Rock Garden, which simulates the rock-slide habitat very common in the mountains of British Columbia; the Aquatic Garden for the accommodation of pondweeds, water lilies, and other aquatic plants which abound in the lakes of the Province; the North American Arboretum, now in process of development, for the trees and shrubs of Eastern Canada and the United States; and the Japanese Garden, presented to the University in 1935 by the friends of the Japanese statesman, Dr. Inazo Nitobe. This last was planned and planted by Japanese gardeners and labourers. It contains shrubs, flowers, and grasses, chosen with discriminating care from the floras of Canada and Japan. Growing side by side as they do, these symbolize the positive, courageous, and constructive internationalism to which Dr. Nitobe devoted his life. In the centre stands a Japanese Lantern erected in recognition of his eminence as idealist and thinker. The whole is a perpetual reminder also of the peculiar position in which the University stands in relation to the East.

The lands now being cultivated for agricultural purposes were in the original plans subdivided into sites for various Campus buildings. The Farm Lands proper, of which thus far only a small portion has been cleared, adjoin the forest reserve on the western slope of the site. Here will be found the partly developed fields which constitute the experimental plots of the Faculty of Agriculture and where in recent years work of far-reaching practical and scientific value has been carried out.

The Forest Reserve of about one hundred acres, which has been preserved as a natural park, forms an invaluable outdoor laboratory for students in Forestry. It is typical of stands found on the West Coast and all the principal species of tree in this region are represented.

BUILDINGS

THE buildings on the Campus are of two kinds, permanent and semi-permanent. The permament buildings are three. One is the first unit of the Library Building. Another is the first unit of the Science Building. This last

now accommodates the various Departments in pure science, but will ultimately be given up to Chemistry alone. Both are handsome structures and both have been skilfully planned. Classed as a permanent building also is the Power House, which in addition to its primary function performs that of a laboratory for engineering study and research.

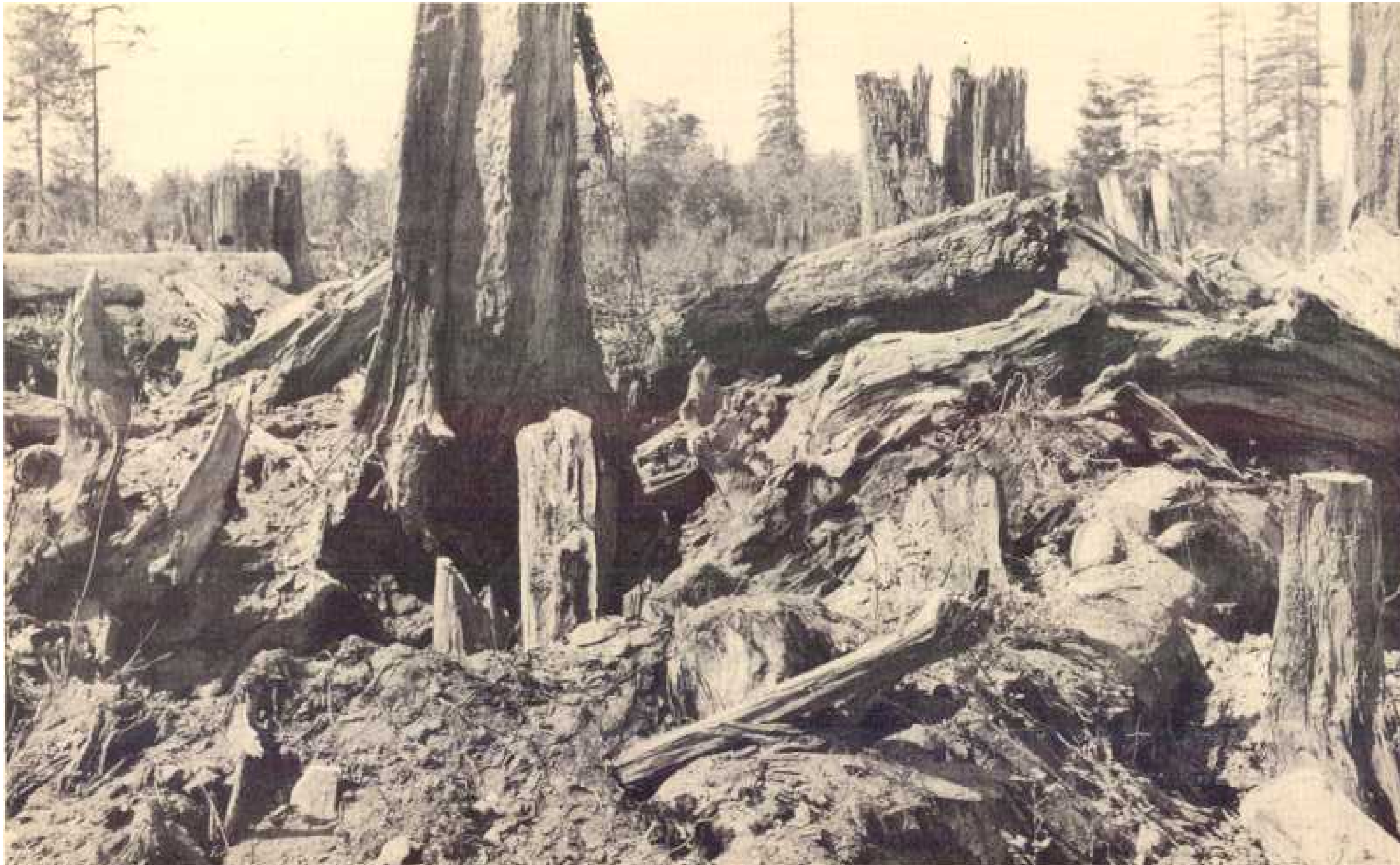
Of the semi-permanent buildings, which have an estimated life of forty years, the most conspicuous is the Auditorium, whose large hall, seating 1140 persons, is used for University mass meetings, for dramatic and musical productions, and for such functions as Congregation. Attached are an orchestra pit, a large stage, and adequate off-stage dressing rooms. The stage, complete with cyclorama and all necessary electrical illumination devices, is one of the best equipped in Western Canada. Provision has also been made for the showing of motion pictures. The other semi-permanent buildings house the offices, class rooms, and laboratories appropriate to the various Faculties and Departments to which they have been assigned—Arts, Applied Science, Agriculture, Forestry, and Engineering in its various branches. Several hundred yards to the east of the semi-permanent group are the Dairy Barn, the Poultry Plant, the Agronomy and Horticultural Buildings, and several others which are used in its experimental work by the Faculty of Agriculture.

LIBRARY

IN the organization of the institution to which he had been appointed President, Dr. F. F. Wesbrook conceived his plans on a comprehensive scale. They included a Library adequate for the requirements of study in all the courses contemplated, together with the material necessary for the prosecution of research. The Provincial Government had given approval to these plans as part of its initial programme of construction and organization, and had undertaken to supply the funds necessary.

So far as the purchase of books was concerned, a Five Year Plan was adopted. The sum of $100,000. was to be spent on the basic collection in the first year, and for each of the four years succeeding, it was proposed to spend a further $50,000. The physical accommodation for the care of these volumes was to be included in the Administration Building, one of those to be immediately erected.

Mr. J. T. Gerould, at that time Librarian of the University of Minnesota, and now Librarian of Princeton, was commissioned to select and purchase the basic collection. He journeyed to Europe, and bought



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Courtesy Leonard Frank

The Campus As It Is

The Applied Science Building

The Bus Station

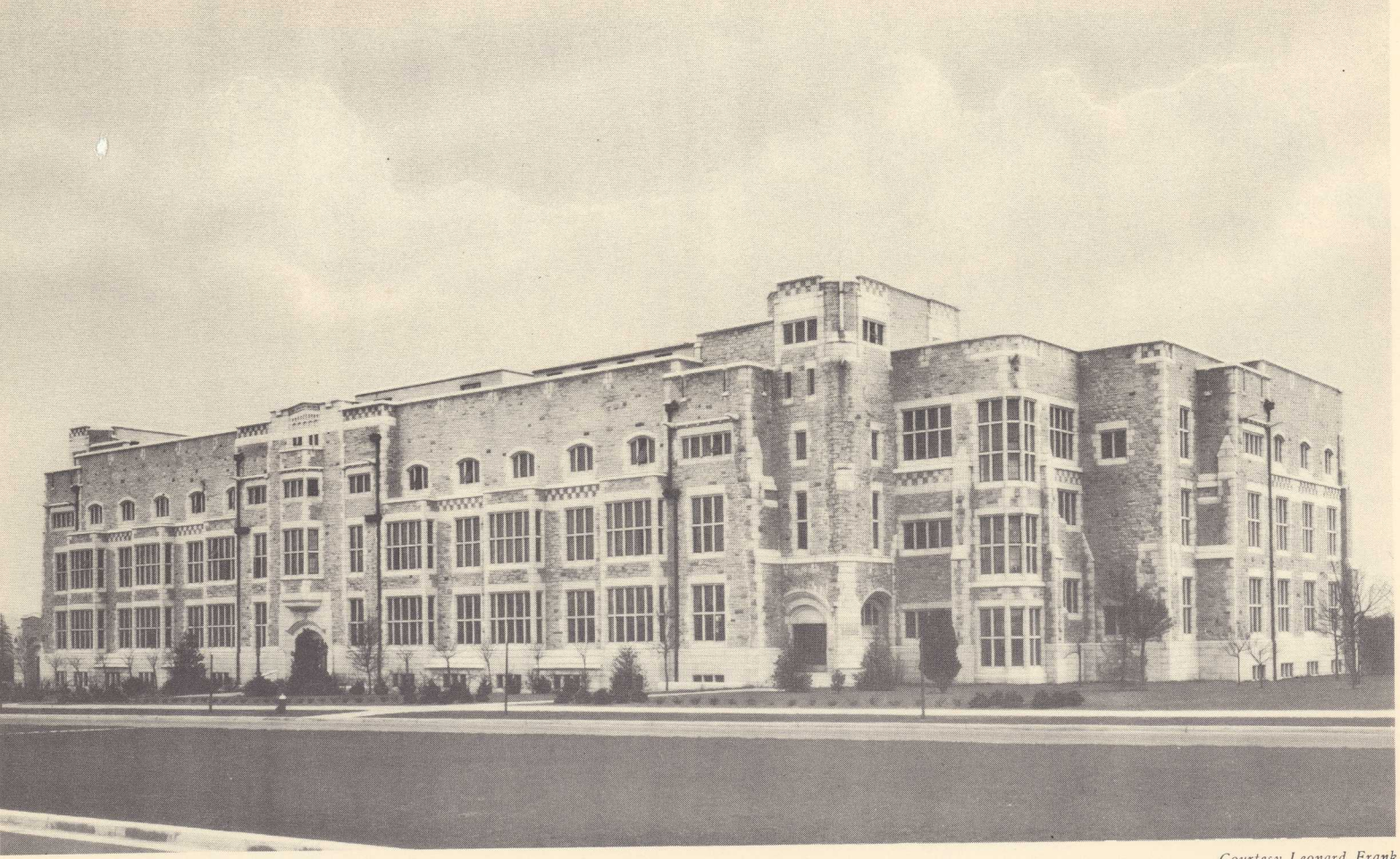
The Students' Cairn

The Arts Building

The Agricultural Building

The Auditorium

The Administration Building



Courtesy Leonard Frank

The Science Building

extensively in England, acquiring the fundamental sets in the Sciences, Philosophy, History, and Literature. In co-operation with Dr. Ashton, corresponding material was purchased in France. Mr. Gerould then went to Germany for similar purchases, but on stepping from the train at Leipzig, he was arrested as a British spy, for he arrived on August 4, 1914, the day that Britain entered the World War. He was thrown into prison, his money confiscated, and after humiliating anxieties was deported to the Swiss border. With difficulty, after many delays and some hardship, he made his way through Italy to Palermo in Sicily, thence to Barcelona in Spain, and finally to Liverpool, whence he set sail for America.

Thus not only were no German books purchased, but the carrying out of the comprehensive programme for the purchase of the basic collection had to be abandoned. It shared the same fate as the programme for building construction.

In view of the fact that several important appointments to the University staff had been made, there was no alternative but to proceed with organization; but every branch of the project had to be redesigned, and on a very much smaller scale. The only building available was the two and one-half storey wooden building used by McGill University College of Vancouver. A new and substantial structure erected by the Provincial Government for the Vancouver General Hospital for tuberculosis patients, recently finished, and as yet unoccupied, was turned over to the University; and to this were brought the books purchased by Mr. Gerould when in Europe. The packing cases containing these filled one large room from floor to ceiling. Funds were not available for the engagement of a professionally trained Library staff, but in the early summer of 1915, the present Librarian was engaged to organize the collection, and to make it available for service. Temporary wooden stacks were erected, and the work of classification begun, so that a few of the books were ready for use when the University opened its doors to the student body in September, 1915.

Despite financial difficulties, the Library grew rapidly, and the problem of physical accommodation became one of ever-increasing difficulty. Additional stacks had to be superimposed on those already erected until they reached the ceiling. Part of the main lobby was taken into the stack room. A lean-to addition was erected that gave shelf space for a further 10,000 or 12,000 volumes. The large room above the stack room was fitted up as a reading room, but the eighty chairs crowded into it provided only one-half, or one-third, of the equipment necessary for the students desiring

to use it. Each year, with the growth of the student body, the problem became increasingly acute, until conditions were well-nigh intolerable.

The situation was not relieved until the removal of the University to its permanent site at Point Grey, where the present Library became available. Like the Science Building, it is a massive structure in a free rendering of the late Gothic style. It is built of British Columbia granite, the general gray tone of which has been relieved by random blocks of field stone in darker shades. It has been planned for expansion in three directions, and can ultimately be developed to house a library of considerably more than a million volumes. Its main reading room is a noble and dignified hall one hundred feet in length, and sixty feet in height. Connected with this are two smaller rooms, each sixty feet in length. The stacks are of steel, and of the most modern design.

The growth of the collection has been remarkable, for, despite financial difficulties, the University has steadfastly adhered to the original policy of building up a representative collection of books for study and research. It contains a larger percentage of the files of scholarly periodicals, and of the transactions and proceedings of learned societies, than does any other Canadian university library of equal volume-total. The University's determination to keep abreast of the newer developments in important fields of knowledge is indicated by the fact that its Periodical Room regularly receives more than 600 general, scientific, and technical publications. Between 4,000 and 5,000 new volumes are added to the collection each year, and the coming of age of the University this year will see the total number of books exceed 100,000 volumes. It contains also nearly 15,000 pamphlets. The circulation, which is Province-wide, exceeds 80,000 volumes a year.

The Library is greatly indebted to many friends for accessions by way of gift. Notable among these should be mentioned part of the Gerrans Library (from Oxford, England), the De Pencier Library of mining and geology, and several smaller collections. Four years ago, the Carnegie Corporation of New York made a grant of $15,000 for the purchase of books for undergraduate reading. This year the Corporation presented a set of its Art Teaching Equipment, consisting of about 200 representative volumes on Painting, Architecture, and Sculpture and including over 2,000 reproductions of paintings, a large number of them in color. It represents a value of $6,000.

The present year was notable, too, for the constitution of the Library as

a Depository for the Library of Congress Catalogue, a collection of more than 1,500,000 printed cards. It is valued at $65,000. As a bibliographical aid in research this Catalogue is invaluable. Outside the United States, there are but eighteen such depositories throughout the world.

MUSEUMS

OF the museums which the University possesses, the best known is the ethnographical collection presented in 1927 by the late Mr. Frank Burnett, LL.D., F.R.G.S. It is the result of thirty-five years of exploration in the Pacific. Weapons, tools, garments, idols, human skulls and bones, and many curios of other kinds make up the collection, which numbers nearly one thousand pieces in all. They come from all around the Pacific—from the Eskimos of the Arctic region, from the Indian tribes of British Columbia, Mexico, Peru, and Ecuador, and from the savages of New Zealand, Australia, the Pacific Islands and the East Indies. It is one of the most extensive collections of its kind in the world. It is housed at present on the first floor of the Library Building.

In the Applied Science Building there are three other museums. One has been designed to illustrate the lectures given in Geology and Geography. It has proved useful also to students of history, sociology, and decorative art. It contains collections of human artifacts from France, Eskimo utensils and garments, Indian baskets and New Guinea weapons; a stratigraphical collection of animal and plant remains, including skulls, horns, teeth and tusks of extinct animals, and casts of dinosaur eggs from Mongolia; miscellaneous collections of ores, minerals, game heads, and mounted mammals and birds; and a fine set of relief models of the continents and the adjoining oceans. Of special interest to the students of the University is a proof copy of the map of Hong Kong made by the University Department of Geology and printed by the Ordnance Survey of Great Britain.

Another museum consists of extensive collections of local flora and fauna. The herbarium contains over 17,000 sheets of specimens representing the flora of British Columbia. In the zoological collection the marine flora is well represented, and the hydroid collection is one of the largest and most representative in existence. The entomological collection is, for most of the orders, the most nearly complete in Canada and is especially representative of this Province.

Lastly, there is a collection containing samples of all the woods of commercial importance in the world, which have been brought together for the

purposes of exhibition and study. The collection is composed of sample boards which have been planed and lacquered to preserve the specimens and to show the grain, colour and other characteristics of the wood. Ninety kinds of North American woods are represented, including all the more important timber producing trees and many others of less importance. A very fine collection of approximately fifty Japanese woods was received several years ago from the Imperial University in Tokyo. Other regions represented in the museum are India, Africa, the Philippine Islands, Australia, Brazil, Ecuador, Honduras, Cuba, and Southern Russia. The entire collection consists of some two hundred boards representing in all over one hundred and eighty different woods. There are also smaller hand samples of woods from New Zealand, the Federated Malay States, Australia, Norway and other countries, which add another one hundred and fifty specimens.

INSTRUCTION

THE University was made up from the first of three colleges or "Faculties"—Arts and Science, Applied Science, and Agriculture. The plans provide for other Faculties, in Law and Medicine, for instance; but it will probably be many years before these are established. In the meantime, the University has been granting both the Bachelor's and the Master's degree in the the three Faculties named. It has not thus far attempted postgraduate work for the Doctor's degree. But almost from the very beginning it has been continually enlarging and enriching its curriculum. In 1919, for instance, was instituted a five-year course in Nursing, leading to the degree of Bachelor of Applied Science in Nursing—the first of its kind in Canada. In 1920 was added a six-year combined course in Arts and Science and Engineering. During this same session also Honour Courses were introduced into the third and fourth years of the Arts curriculum. These courses are open only to selected students, and they involve more intensive specialization than does the ordinary General Course. In 1923 the University broadened its work still further by instituting a one-year Teacher Training Course, the aim of which is to prepare University graduates for the teaching profession. In 1925 a Department of Education was established to take over the educational work which up to that time had been carried on by the Department of Philosophy. In 1929 were added a two-year course leading to a Diploma in Social Service and a four-year course in Commerce leading to the Bachelor's degree. Lastly, in 1930, there was instituted a

six-year combined course in Arts and Science and Nursing. It should be added that the two affiliated theological colleges confer a Diploma of Licentiate in Theology as well as the Bachelor's and Doctor's degrees in Divinity.

In addition to its normal activities in conducting research and in providing cultural and vocational training for its registered students, the University has extended its services to the people at large by means of short courses of various kinds, summer sessions, and extension lectures.

SHORT COURSES

THE University began immediately after the Armistice by taking an active part in providing vocational training for returned soldiers by giving short courses in Mining, Engineering, Forestry, and Agriculture. In the academic year 1919-20 over five hundred men attended these special classes and in the whole period of reconstruction at least thirteen hundred. The Department of Botany has, for several years, been presenting a weekly evening session, lasting from one and a half to two hours, on the elements of Botany. A few people follow this with a laboratory course and so receive University credit; but the great majority of those enrolled are not looking toward a degree. Two instructors in Mining and Geology usually give, during the winter, a series of evening lectures under the auspices of the Chamber of Mines. Agricultural Short Courses for the benefit of people actually engaged in farming were given regularly each winter as long as the University was able to provide instruction, the last session being held in 1931-32.

SUMMER SESSION

FROM the earliest days it had been felt that the situation of the University and the climate of Vancouver combined to make summer work inevitable. It was therefore not strange that Dr. Wesbrook should have asked a group of his colleagues to explore the possibility of a four term year. This scheme was not put into effect; but the impulse that actuated the request and the needs of the teaching profession led to the opening of the first Summer School for Teachers in July, 1920. The name indicates clearly enough that the school did not propose, at that time, to offer courses leading to a degree. It aimed merely, as the prospectus states, to assist High School teachers in some of the Arts and Sciences, to help them to obtain higher teaching certificates than they already possessed, and to provide certain courses in Education.

The experience of the first two years, however, showed that a real need

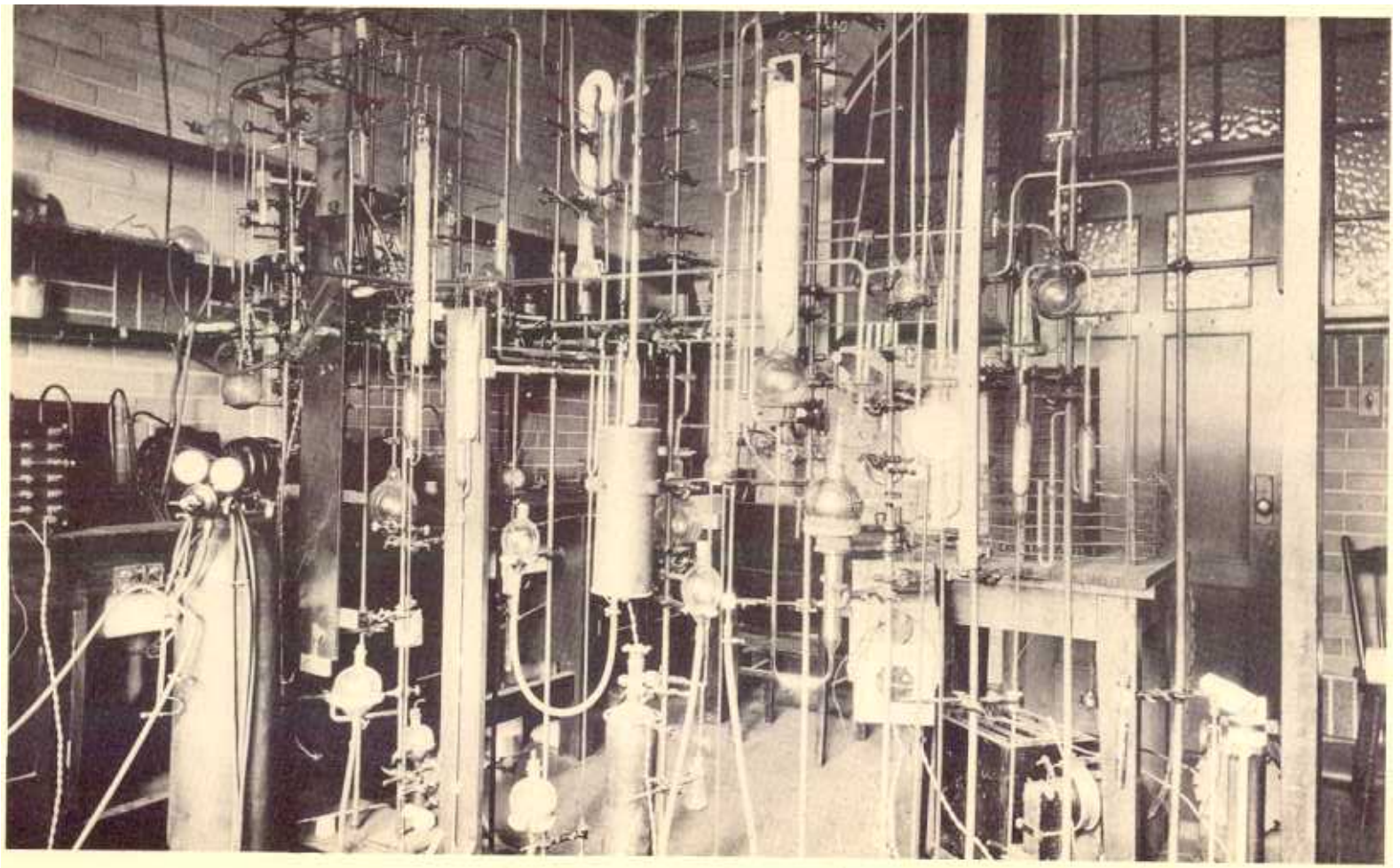
was being met and that further steps might safely be taken. Accordingly, in July, 1922, the first Summer Session of the University of British Columbia opened. Matriculation was required as a condition of enrolment. Regular University courses were offered, with examinations and credit towards a degree. The undertaking expanded rapidly. The enrolment, which had begun in 1920 at 127, mounted steadily until in 1927 it reached a peak at 487. In the years of depression that followed, there was a falling off in attendance; but in 1935 it had almost regained its highest level.

Large numbers of teachers have availed themselves of this opportunity to continue their studies. They have continually asked for a greater variety in the courses offered, as well as for advanced work. These demands have been so urgent that year after year the curriculum has been enlarged, until now courses are offered which lead in certain fields not only to the B.A. degree, but to the M.A. as well. In addition, late afternoon and Saturday morning classes are held throughout the academic session for the benefit particularly of working teachers in Vancouver who cannot attend the regular session, but who wish to do work leading to a University degree. For teachers living outside Vancouver, directed Reading Courses have, under certain conditions, been made available.

The Summer Session has been of great benefit not only to the teaching profession, but also to the people of the Province as a whole. Hundreds of adult students have attended one or more of the sessions; a large number have already completed the full four-year course for the Bachelor's degree in Arts, and a few have proceeded to the Master's. This academic work, together with the courses given in Education, has enabled teachers to obtain First Class and Academic Teaching Certificates. The direct result of the Summer Session has thus been to raise the professional qualifications of teachers throughout the Province. The indirect results, though less tangible, have also been very great. An impetus to study has been given to teachers in the Provincial schools, bringing in its train revised and enriched curricula and improved methods of teaching. Work and recreation together during the summer have served to unite the teachers of this widespread Province, to unify their aims, and therefore to bring more uniformity into their teaching methods. And through the direct association of the teacher with the child and the home, the Summer Session is helping to share with the whole community that cultural heritage which the University has in its keeping.

Courtesy Leonard Frank

The Reading Room of the Library



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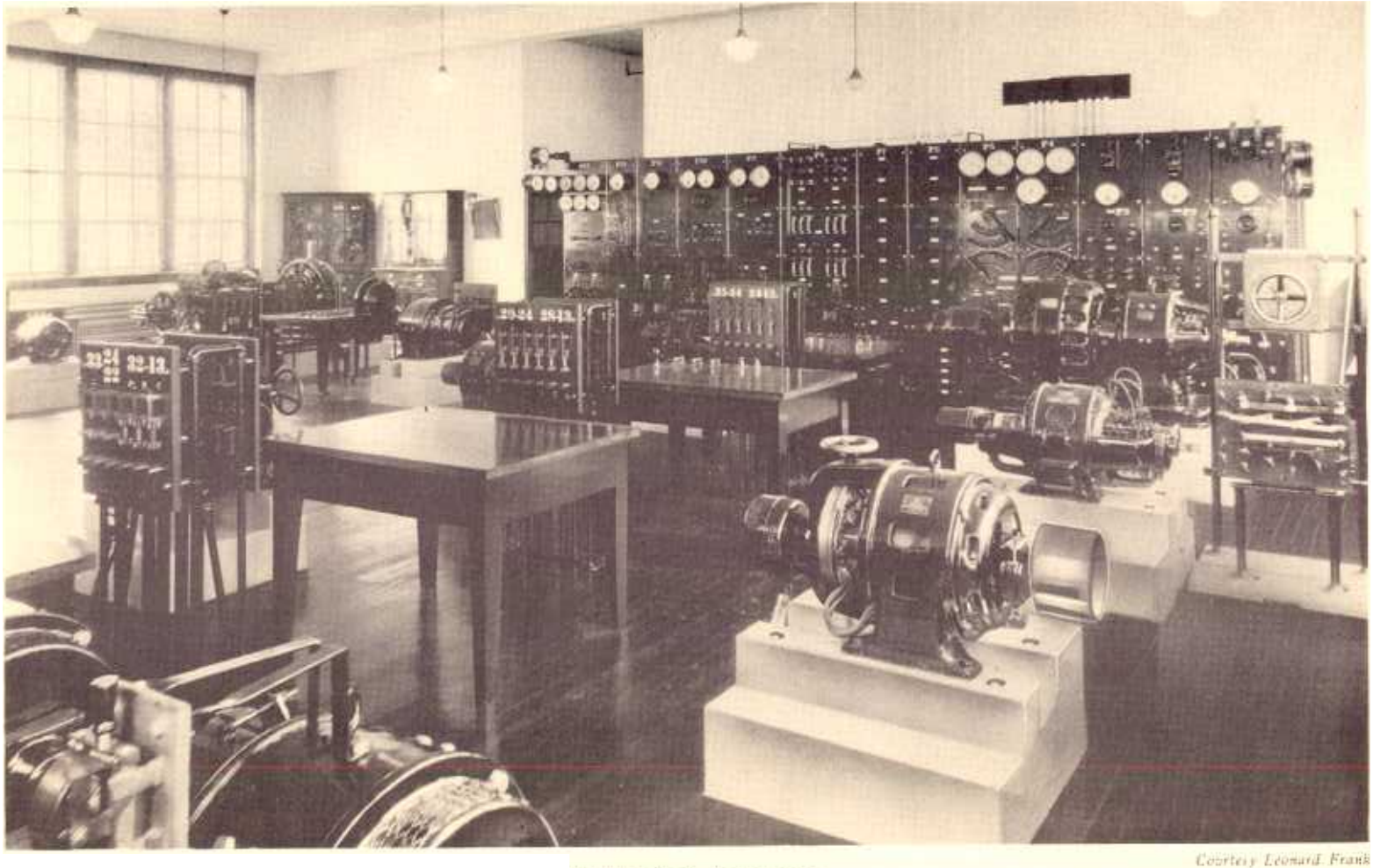


Courtesy Leonard Frank

he Electrical Laboratory

EXTENSION

THE University Extension Committee, which was organized in the autumn of 1918, has concentrated almost from the first on providing public lectures outside the University. The number of these has increased from twenty-four in the first year until during the session of 1933-34 over three hundred lectures were arranged, partly through the Committee and partly independently, with an estimated total attendance of nearly 35,000. In several years radio addresses have been added. Of public lectures, nearby places have naturally received the greater number; but many have been given also in the Fraser Valley, in the Kootenays, in the Okanagan, along the main line of the Canadian Pacific Railway, and even sometimes in the Nechaco and Cariboo areas. It has been a tradition that members of the staff giving their services in this way should receive no remuneration for them. At one time the University paid the travelling expenses of any lecturer speaking within a moderate distance of Vancouver, but more recently such contributions to the cost have had to be discontinued.

During the present session (1935-36) the work in extension has been very much enlarged. A portion of a grant which had been made to the University by the Carnegie Corporation of New York was set aside for the purpose of adult education. This money has been used to defray the costs of administering the work, to pay the lecturers for their services, and to provide substitutes to take over their classes during their absence. Thus it has been possible during the winter to give over five hundred lectures throughout the Province, the lecturers having been enabled to penetrate as far as Prince Rupert and the Cariboo some five hundred miles to the north and as far as Fernie and Golden some four hundred miles to the east. Under this same scheme it is proposed to give agricultural field demonstrations in the north country during the summer. The Extension Committee has encouraged the formation of study groups, which have begun work in a small way; and has expended $1000 on books in order to provide a certain amount of reading matter in support of some of the lectures. The scheme this year was entirely of an experimental character; but the response has been so encouraging that in all probability the work will very soon be placed on a sound financial basis and a permanent director appointed. In any event something has already been done towards making the campus of the Provincial University coterminus with the boundaries of the Province.

Research

RESEARCH is one of the most important functions of a university teacher; and the vigor and standing of any educational institution may be judged in some measure by the devotion of its staff to this end. Not only does a university owe it to the public to add, by original investigation, to the sum of human knowledge, but research itself keeps the individual teacher fresh and in touch with his subject. Furthermore, it enables him to inspire his students, for there is no part of education so valuable as the contact with a mind engaged in solving problems and in extending the limits of knowledge. The following record of achievement, though necessarily very incomplete, will show at least that research, widely diverse in its nature and by no means inconsiderable in quantity, has been carried on and is now being carried on with vigor at the University of British Columbia. It should be added that the value of this research has been recognized by learned societies throughout the English-speaking countries. Many of these, including, for instance, the Royal Society of Canada, have honoured members of the University by electing them to fellowships. One member of the staff was last year elected to the Presidency of the society just named, this being the first time that the honour has come to British Columbia. Others have served either on the executives or on the standing committees of such bodies as the Pacific Science Congress, the Social Science Research Conference of the Pacific Coast, the Biological Board of Canada, and the National Research Council of Canada.

A mere list of articles contributed by members of the staff to learned periodicals throughout the world would more than fill this book. A list of textbooks compiled for use in the colleges and schools of this continent would fill many pages. Mention may be made, however, of such notable contributions to scholarship as the following: *Company Colonization in the Prairie Provinces, The International Trade Balance in Theory and Practice, Sir James Douglas and British Columbia, Boileau and the French Classical Critics in England, Madame de la Fayette, Molière, Induction Motors, Analytic Algebra, Index Aristophaneus, Xenophon's Symposium and Apology, The Flora of British Columbia, Of Irony, especially in Drama,* and *Le roman social sous la Monarchie de juillet.* Studies in hand at the moment include investigations of Latin verse inscriptions, the relation of early Nineteenth Century French Literature to the social ideas of the time, the temper of Augustan literature, the life and works of George Peele, British colonial administration in Africa, the history and

present status of Teacher Training in Western Canada, the geology of British Columbia and the Yukon, Canadian-American relations on the Pacific coast since 1866, and a comprehensive sociological survey of Canadian-American relations for the Carnegie Endowment for International Peace. Some of these studies are nearing completion and some are in press. One member of the staff, who is recognized as an authority on the relation of Canada to the League of Nations, is engaged in a study of the international situation in the contemporary world.

Investigations and surveys directed to the immediate problems of the Province and the Dominion are constantly being carried out at the request of the Governments concerned and of other public bodies, as well as of commercial and industrial organizations. Such, for instance, have been studies of the fungus flora and the poisonous plants of British Columbia; of the effect of radiant energy upon growth; of the oceanography of the Straits of Georgia, with particular reference to the effect of the Fraser River upon the distribution of fish-food and upon the migrations of salmon; of the genetics of economic and decorative plants, such as vegetables, alfalfa, and roses; of the growth cycles in British Columbia trees and the modification of growth rates by climatic and soil conditions; of various phases of disease in important economic plants, such as storage rot in apples, and the pathology of the balsam and the Douglas fir; of economic entomology and insect control; and of the effect of smelter smoke on forest and farm plants. One members of the staff has made several expeditions to the North and the South Pacific oceans, gathering marine zoological material, for the purpose especially of determining the distribution of the hydroids.

Exhaustive investigations have also been made in plant nutrition, such as, for instance, studies of tree growth with special reference to root activities, of mineral absorption by trees, of the influence of water on tree growth, and of the nutrition of economic plants, both of the field and the garden. Allied to these investigations are studies of fruit storage problems, of electric soil heating, of mushroom culture, and of the rest period in plants. Breeding work has been carried out with cereals, roots, forage crops, vegetables, and flowers. Extensive field-crop experiments have been made which have supplied valuable data for teaching purposes as well as for dissemination throughout the Province by means of press and public lecture. From these field investigations certain fundamental problems have developed affecting root studies, studies of soil acidity and of clover failure, and experiments with wheat, roots, and alfalfa. Closely associated with this

work are forestry investigations of seed germination, nursery practice, seed testing, and the effect of soil types on seedling survival. Studies have also been made of selective logging methods, of the regeneration and rate of growth in the Douglas fir, and of the microscopic identification of wood. And reports have been made of the forest resources of the Northern Interior of British Columbia jointly for the Provincial Government and the two great Canadian railways.

One department has investigated practically all the mineral areas of the Province, reporting to the Dominion Geological Survey more particularly on the Eutsuk Lake area, the Sullivan Mine, the Britannia Mine, the Premier Mine, Copper Mountain, Hedley, the Cariboo region and Southern British Columbia. The mineral resources of the Pacific Great Eastern subsidy lands have been investigated for the Provincial Government and the Canadian railways. Other projects include a geological survey of the Crown Colony of Hong Kong, a survey for the Dominion Government of the oil possibilities of the Mackenzie River valley, Southern Saskatchewan and Alberta, and Manitoulin Island; a survey of the copper nickel deposits of the Sudbury region; and geological studies in Mexico, Fiji, Australia, Japan, China, Korea, Finland, Norway, Sweden, and the Hawaiian Islands. Closely connected with this work is that of an allied department which has conducted extensive ore testing experiments for the purpose of guiding and improving milling operations. One important result has been the development of a superconcentration method of treating local nickel ores. This field of study is being actively investigated at the present time. In connection particularly with the recovery of gold, three departments of the University working in co-operation have recently, after four years of work and investigation, perfected a "superpolisher," which will help to eliminate the uncertainty in milling tests that has prevailed up to the present time as well as to indicate the mode of occurrence of valuable minerals in the ore. No longer therefore need the mining industry of the Pacific North-West be dependent on the East for its ore examinations and mineragraphy.

The activities of another department will be found recorded in upwards of a hundred papers published in the scientific journals of Canada, Great Britain, and the United States. These papers deal with a variety of topics, such as, the atomic weights of elements, the design of distillation apparatus, adsorption phenomena, gasoline and lubricating oils, the drug content of many drug plants grown in British Columbia, the tannin content of British Columbia trees, the use of catalysts in organic preparations, the applica-

tion of various electron theories to organic reactions, the effect of electrical discharge on gases, the separation of rare earth elements, the mechanism of gaseous organic reactions, the testing of newsprint with respect to printing quality, the conversion of fatty and waxy substances into petroleum hydrocarbons, the phase relations of sodium and magnesium sulphate, the effect of various chemicals including vitamins and hormones on the rates of enzymatic reactions, and the effect of certain drugs on tuberculosis in guinea-pigs.

The research activities of another department range from large scale investigations into the electrical precipitation of valuable deposits from smoke stack gases to spectroscopic investigations leading to a knowledge of the structure of the atom. Other projects include precision measurements of the velocity of sound; studies of the electric arc and of the nature and origin of X-rays; and experiments with glasses for the transmission of ultra-violet light and an instrument for testing radio-active ores. During 1935 this department, in co-operation with the Fisheries Experimental Station at Prince Rupert, carried on an investigation into the spectroscopic determination of the vitamin A content of pilchard oil, for the purpose of widening the market for this British Columbia product.

A unique example of inter-university co-operation was instituted when the University of Toronto in 1935 placed in charge of a provisionally established Western Division of the Connaught Laboratories one of its ablest scientists, who, while retaining his connection with his own University, has been appointed Director of the Provincial Board of Health Laboratories as well as Acting Head of two allied departments in the University of British Columbia. One problem already investigated in this department is tuberculosis as it affects the Indians of the Province. Another is the furunculosis disease among the fresh water fish of British Columbia. The Western Division of the Connaught Laboratories will serve as a centre of bacteriological research, where problems relating to diseases of men and animals and to the part played by bacteria in certain industrial processes will be investigated. Results of great practical and theoretical value are confidently anticipated.

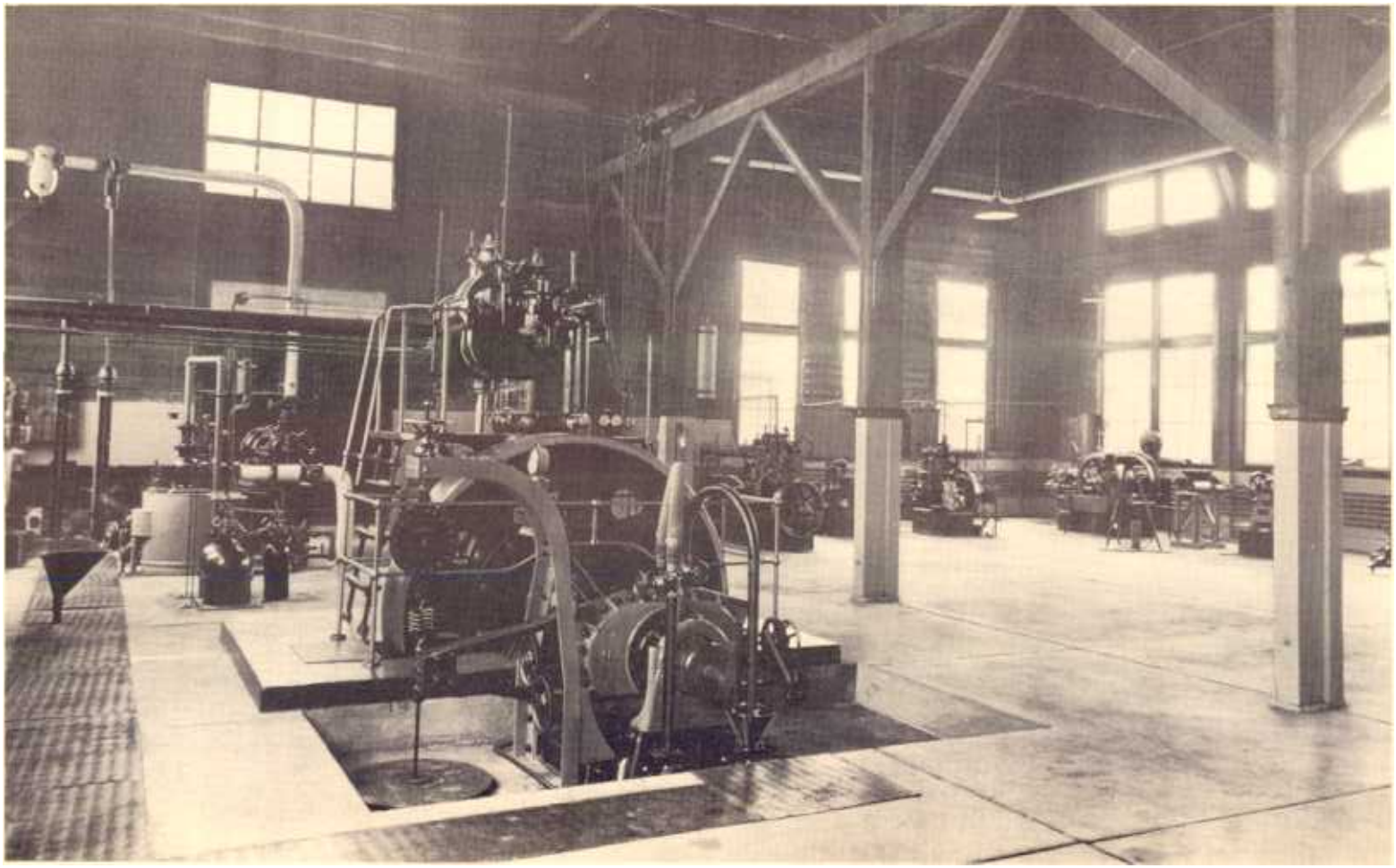
More than a score of papers have been published dealing with the mathematics involved in the problem of three or more bodies, with applications to celestial mechanics and to molecular motion. Other researches have been conducted in the fields of algebras and their arithmetics and of elliptic functions.

In the application of electricity to practical problems, investigations have been undertaken in connection with the elimination of magneto noises from air-craft receiving sets, the induction motor under unbalanced conditions, the torque in a bipolar induction type instrument, a new piezo-electric indicator and its application to internal combustion engines, the influence of asymmetry of air-gap in circulating current machines and commutation in direct current machines, the engineering economics of public utility systems, rectification at dry contacts, transient phenomena in synchronous machines, static balances, lubrication, vacuum tubes, shading coils for relays, dielectric breakdown, and commutation in the A.C. commutator motors.

Another department has investigated the production of clean milk, the grading and bacterial content of cream and butter, the ripening of hard-pressed cheese, the nutritive requirements of lactic acid bacteria, the bacteria responsible for the alleged feed flavour and stable odour in milk, and the fermentation problems of the paper industry. Some of this work has been carried on by means of special grants made for the purpose by the National Research Council of Canada, the Empire Marketing Board, and the Powell River Pulp and Paper Company.

Research has also been conducted in the field of dairy production, the record of which work, covering a period of ten years, and published in bulletin form, is a standard reference. Investigations have been made of the nature and distribution of haematuria vesicalis, a common disease of cattle in this area; of nutritional deficiencies in live-stock production; of the feeding values of locally produced high-protein concentrates; and of the economics of beef-production on the Lower Mainland. Breeder producers have been organized throughout the Province on a comprehensive scale. For a time an export trade in British Columbia live-stock received attention and resulted in shipments to Hawaii, South America, and the Orient. The herds and flocks of live-stock maintained by the University, in addition to serving as material for demonstration and investigation, have been exhibited at provincial and international shows with marked success. Since 1917 twelve Canadian records in milk and butterfat production have been made by the Jersey and Ayrshire herds of the University. The live-stock judging teams trained each year since 1919 have an excellent record of achievement in international competitions.

Attention has also been paid to the breeding of poultry for high egg production, to assisting the poultry industry of the Province by means of

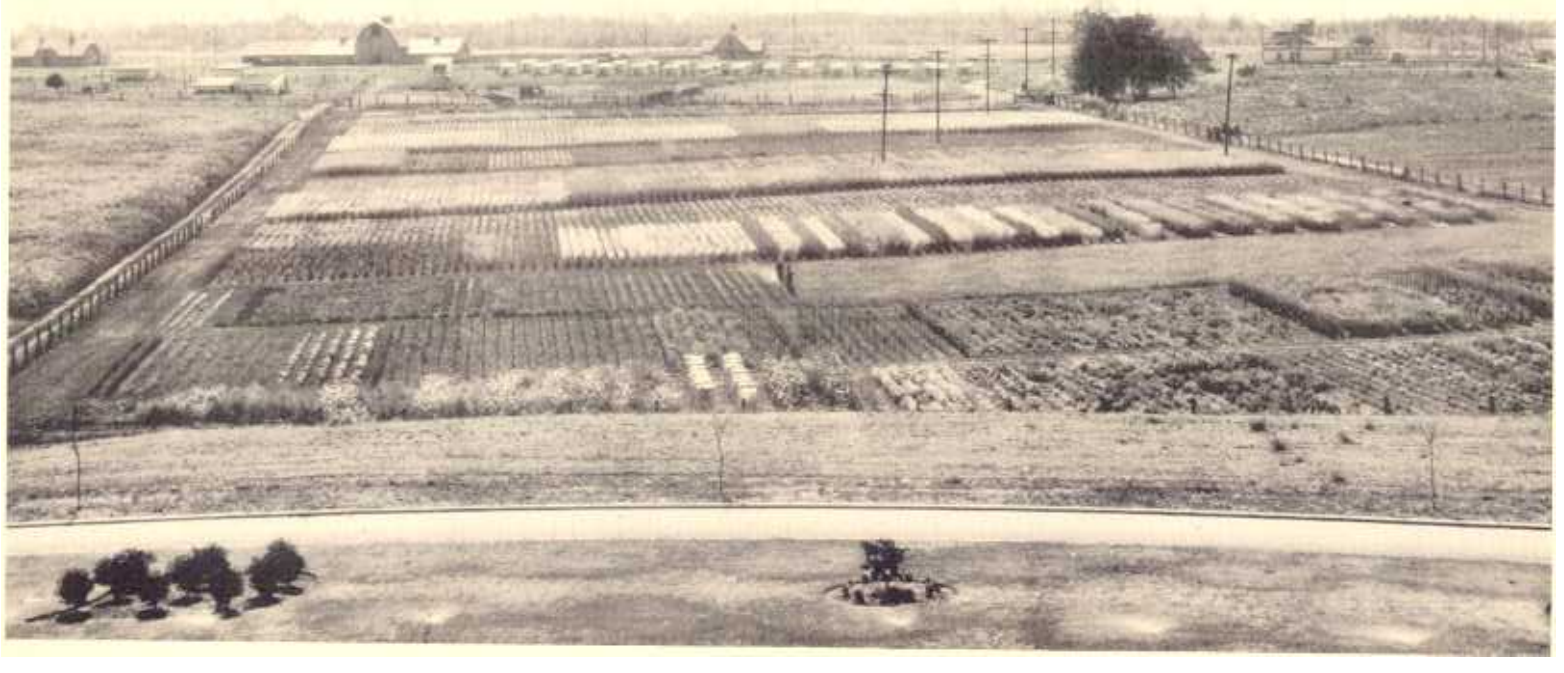


Courtesy Leonard Frank

Steam Laboratory

Gladiolus Blooms in the Horticultural Garden

Courtesy Leonard Frank



Universit bir on her rrival from Scotland

specially conducted surveys, the establishment of a poultry disease laboratory, and the spreading of information in poultry husbandry. In this connection should be mentioned the famous hen No. 6, which in 1925 laid 351 eggs in 365 days, at that time a new world record. Work of considerable economic importance has also been accomplished through increased average annual egg production in certain breeds and through fixing certain desirable characteristics, such as rapid maturity and general improvement in meat qualities. Investigations have been conducted in connection with such problems as pullorum, the hæmatology of the fowl, feeding for egg production, the pathology of fowl paralysis, chick sexing, the protein requirements of growing chicks, the formation of the hen's egg, the malposition of embryo chicks, and the inheritance of side sprigs, growth rate in the domestic fowl, resistance to certain diseases, plumage and skin colour, and of egg size.

Studies have been made or are now being made of the Oriental problem on the Pacific Coast, of the distribution of package freight and its origination within Canada, of the fishing industry of the Dominion and the world market for fish, of the Island coal industry and its problems, of the First Narrows Bridge project, of the milk distribution in Greater Vancouver and Alberta, of the marketing in Vancouver of heavy and light textiles, wallpapers and wall decoration, leather and rubber goods. At the request of the Provincial Government surveys have been made of the Industrial School for Boys, of the Prison Farm at Oakalla, and of the problem of delinquency. Approximately one hundred projects have been carried out or are now being carried out in connection with the problems of the urban community. And in the field of British Columbia history some thirty studies have been begun, of which fifteen have been completed.

In conclusion a reference should be made to public services performed by members of the staff. Many have been or are being consulted, more or less informally, either by the Provincial or by the Dominion Government, in connection with problems of taxation and finance. Several have served on Government Commissions. The Milk Inquiry Commission of 1928, for instance, included two members of the staff, of whom one acted as Chairman. Another member of the staff is at the moment Chairman of the Economic Council of the Province. Another was a member of the Canadian group of the Institute of Pacific Relations at the conference at Kyoto (1929) and Banff (1933). Still another in 1924, collaborating with Mr. J. H. Putnam of Ottawa, conducted a comprehensive survey of the school

system of the Province; in 1929 he directed a survey of nursing problems in Canada; and since 1933 he has been Provincial Secretary and Minister of Education for British Columbia. Leave of absence has been granted, when necessary, to permit such activities to be undertaken.

ALUMNI

THE graduates of the University have not yet had time to reach the places of highest eminence. But already many of them are filling key-positions in the professional, industrial, commercial, and cultural life of the Dominion as well as of the Province. And already they have carried the names of both to the four corners of the earth.

It is interesting to note that of the 3364 graduates whose addresses are known, no fewer than eighty-eight per cent are resident within the Province. Five per cent are living in other parts of the Dominion, making a total of ninety-three per cent for Canada as a whole. Of the remainder, five per cent are now in the United States, many of them engaged in postgraduate study; slightly under one per cent are in the British Isles; and slightly over one per cent, thirty-eight in all, are scattered throughout the rest of the world.

Leaving out of account the scholarships granted by the University to its own alumni, one finds that the value of the bursaries, scholarships, and fellowships won by the graduates of the University of British Columbia from the time the first awards were made in 1917 to December 31, 1935, amounts to over half a million dollars. The total value must exceed this amount, first, because some graduates have not reported awards they have received, and secondly, because scholarships in many cases carry with them medals and free tuition. The records show that in all nearly five hundred awards have been won, most of them in open competition with graduates from other universities. Among the more important are the Rhodes Scholarship, the French Government Scholarship (fr. 10,000), the Ramsay Memorial Scholarship (Cambridge), the Exhibition of 1851 Scholarship (Great Britain), the Beit Fellowship (Great Britain), the Commonwealth Fund Fellowship (Great Britain), the I.O.D.E. Fellowship, the Connaught Research Fellowship (Toronto), the Royal Society (Canada) Fellowship, the International Research Travelling Fellowship, the Senior Sterling Research Fellowship (Yale), the Rockefeller Foundation Fellowship, the Rockefeller Travelling Scholarship, the National Research Fellowship (U.S.A.), the Pack Fellowship in Forestry, which is

the highest award of its kind in North America, the Guggenheim Memorial Travelling Fellowship, and the bursaries, scholarships, and fellowships of the National Research Council of Canada. Of this last group of awards the graduates of the University of British Columbia have won a larger number than have the graduates of any other university in Canada. It is also worthy of record that annually since 1920 Clark University has offered and in each year but one has awarded a scholarship to a graduate of the University.

In carrying on their researches the alumni, with or without the aid of scholarships, have travelled as far west as Tokyo and as far east as Athens. In Canada they have won degrees and awards at Toronto and McGill in particular. In the United States their names appear in the honours lists of Harvard, Yale, Princeton, Cornell, Johns Hopkins, Chicago, Clark, Stanford, Brown, Pittsburgh, Haverford Columbia, Smith, Bryn Mawr, Purdue, the Massachusetts Institute of Technology, the California Institute of Technology, and of the state universities of California, Illinois, Wisconsin, Minnesota, Michigan, Iowa, Maryland, and Washington. They have also won distinctions at Oxford, Cambridge, London, Edinburgh, Paris, Munich, the London School of Economics, and the National Institute for Medical Research at Hampstead in England.

Many of the alumni have continued in academic work. These have held or are now holding important staff positions at the universities of Oxford, Cambridge, McGill, Toronto, New Brunswick, Western Ontario, Dalhousie, Bishop's College, Manitoba, Alberta, Harvard, Princeton, Johns Hopkins, Columbia, Purdue, New York, Syracuse, Oregon, Minnesota, Wisconsin, Idaho, Arizona, Michigan, Florida, Rochester, Rutgers, Calcutta, and at the Michigan School of Mines, the Massachusetts Institute of Technology, Northwestern University, and Washington University, St. Louis. Others are engaged in educational institutions situated as far apart as Kowloon near Hong Kong in China and Ibanda in Southern Nigeria. Eight, including one head of department, hold the rank of Associate or Assistant Professor on the staff of their Alma Mater and forty-two others hold junior positions.

Even to list the titles of articles and papers published by the alumni in scientific and literary periodicals would take more space than can be given here. But among the books published by them should be mentioned *Charles Darwin Among the Poets, The United States and Canada, Central Banking in Canada, The Railway Problem of Canada, Sir Henry Thornton,*

The Transition in English Historical Writing, 1760-1830, The Enlightened Despots, Saint-Just, A History of the Worshipful Company of Bakers, British Malaya, 1824-1867, A History of British Rule in Ceylon, 1795-1932, Das Bild Laurence Sternes in der deutschen Litteratur, Segrais, l'homme et son oeuvre, and *Le roman francaise de 1660 à 1680.* Several of these books are recognized as authorities in their special fields. The two works last named were awarded the *Prix de la langue* (1930 and 1934) by the French Academy. Among books now nearing completion may be mentioned studies of literary criticism in the late Seventeenth Century, irony in medieval literature, the baroque movement in English poetry, the Renaissance lady, the English Christmas carol, the British fur-traders west of the Rockies, the relations of the Dominion of Canada and the Province of British Columbia, and an account of the publications of the Minerva Press (1790-1820) which will be published during this year by the Bibliographical Society of London. A book on Lady Morgan, the Irish novelist, is already in press.

Of the graduates in Arts, a large number have proceeded to the higher degrees and many now hold academic posts. Others are playing an important part, as might be expected, in the building up of that better social order for which all mankind is yearning. To this group belong the executive head of the Vancouver Welfare Federation, the Provincial Director of Social Services, the Superintendent of the Industrial School for Boys, and the Adviser to the Government on Health Insurance. Five are employed on the staff of the Provincial Economic Council; and many are engaged in law, journalism, and social service work. The remainder show a wide diversity of interest and occupation as the following representative enumeration will illustrate: the City Solicitor of Vancouver, the Legal Adviser to the Income Tax Office in Vancouver, the Provincial Librarian and Archivist, Assistant Canadian Trade Commissioners at Hong Kong, Shanghai, Kobe, and London, one of the most distinguished or the younger architects of Great Britain, a member of the Board of Governors of the University, several members of the University Senate, and three members of the Department of External Affairs at Ottawa. One of these is now attached to the staff of Dr. Riddell at Geneva. Another was formerly Research Secretary of the American National Council for the Preservation of World Peace with headquarters at Washington and later Secretary of the Canadian Legation at Tokyo. Three graduates are employed on the staff of the International Fisheries Commission and four on the staff of

the Biological Board of Canada. Others are employed by the Dominion Entomological Branch and by the Plant Pathology section of the Dominion Experimental Farms.

A large number of the alumni, more than five hundred in all, are engaged in the teaching profession. This is as it should be, seeing that one of the primary functions of a university is to furnish educational leadership. Since courses in Education were established in 1923 the University has trained the Director of the Elementary Correspondence School under the Department of Education at Victoria, three Normal School Instructors, one Elementary School Inspector, ten Principals of Elementary Schools, two Principals of Junior High Schools, five Principals of Superior Schools, and twenty-one Principals of High Schools.

As the Theological Colleges now affiliated with the University are both older than the University itself, it is not surprising that a large number of their graduates in Divinity are to be found in the ministry of British Columbia and the Yukon. Many of them have held important scholarships and some have taken postgraduate work at Oxford, Edinburgh, and Glasgow. Some are now engaged in educational work in college and university; others are filling positions in the parish and mission fields not only of British Columbia, but of Alberta, Ontario, Great Britain, Ireland, Australia, China, Japan, and South Africa as well.

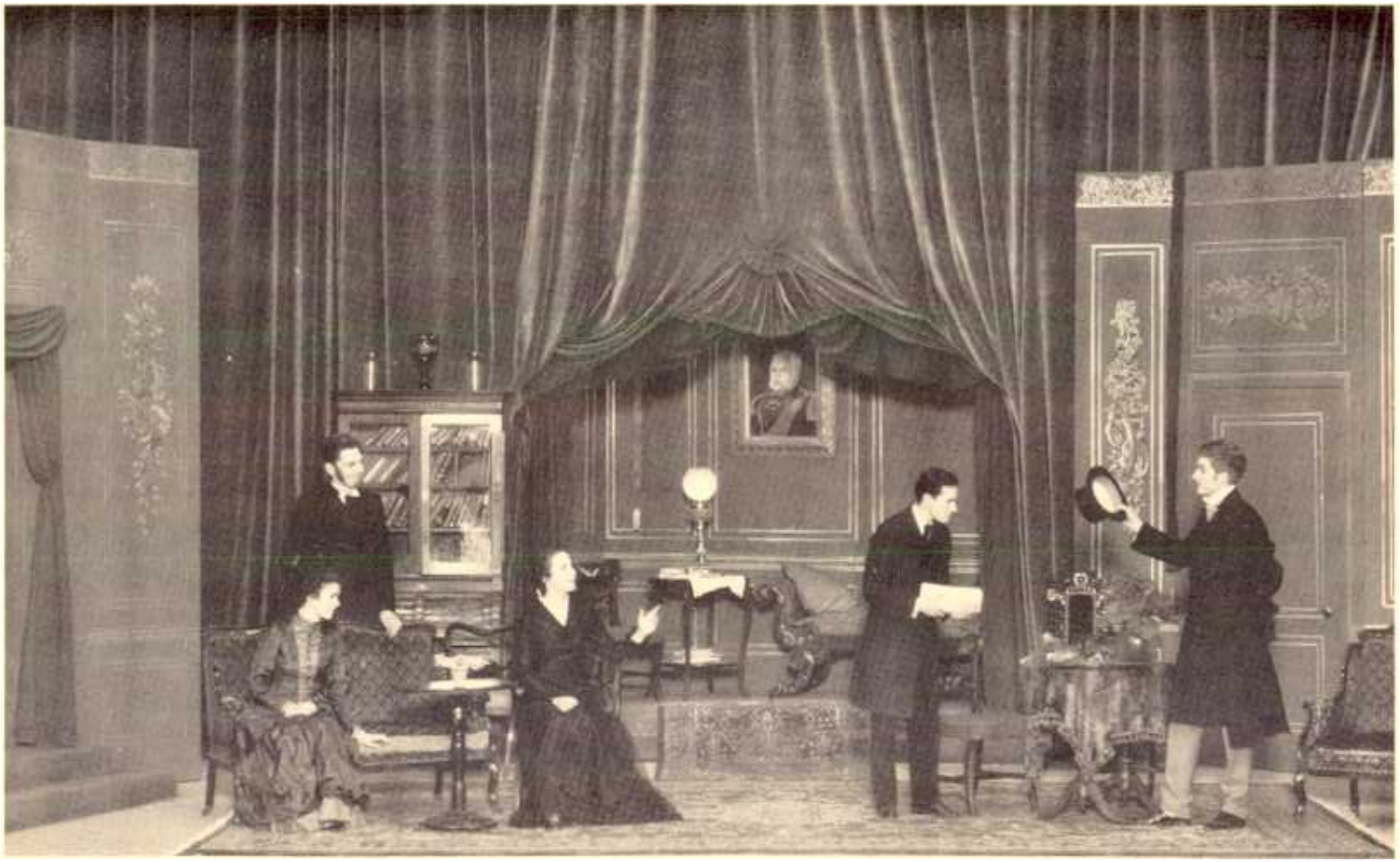
A gratifying number of the graduates are employed in hospital and public health work, many of them holding responsible positions in the Health Units which have been established throughout the Province. In carrying to the more remote parts of the country the knowledge and the technical skill which they have acquired at the University, these graduates are performing a most valuable service for the community. Others who have specialized in this field are now occupying positions as trained laboratory technicians, and several have received important research and teaching appointments in other universities. Although the University itself does not confer degrees in Medicine, it does provide essential pre-medical training for those students who propose to enter medicine as a profession. Of the graduates who have received this preliminary training, more than sixty are now practising physicians, most of them resident within the Province. A very brilliant and tragically fated member of this general group, Dr. Archibald Fee, proceeded by means of fellowships to McGill and thence to London. In London he was appointed research assistant in physiology to Dr. Starling, at that time one of the most distinguished of

the English investigators in this field; and was given a laboratory of his own with trained assistants to help him. When Dr. Starling died, young Dr. Fee was placed in charge of the project. At the time of his death, which occurred in the following year, he was only twenty-four.

Of the graduates in Agriculture all but three are engaged in some form of agricultural activity. Several have taken up farming as a profession. Others are employed in the Provincial and Dominion Departments of Agriculture, occupied in experimental and executive work which directly or indirectly benefits the agricultural industry. While farming is often considered to be a practical art, it is true, nevertheless, as was said of the perfect farmer by Columella nearly two thousand years ago, that "all the arts and all the sciences minister to his improvement." In the spirit of this saying, many of the graduates in Agriculture have tried to prepare themselves for their future tasks by extensive travels and studies on this and other continents. Out of a total of 173, thirty-five per cent have taken the Master's degree and eight per cent the Doctor's. The following representative record shows a wide variation in achievement: several successful poultrymen; two manager-owners of a flourishing small-cheese factory; a working manager and part owner of the largest Elite onion seed producing plant in Canada; an owner-manager of one of the best known Holstein-Friesian herds in Canada; the Superintendent of the Dominion Experimental Farm at Summerland; a biochemist at Rothamsted Experimental Station, Harpenden, England; the Western Sales Superintendent of Canadian Industries Limited at New Westminster; and the Assistant Agricultural Attaché of the American Embassy in Paris, who is also European Crop Correspondent of the Department of Agriculture and the Bureau of Economics at Washington.

Of the thirty-nine graduates in Forestry, twenty-four are employed either in the lumbering industry or in the Provincial and Dominion Forestry Services. One is District Forester at Prince Rupert, and one at Prince George. Another is in charge of the Timber Products Division of the Vancouver Forest Products Laboratory. Several are teaching.

Many of the graduates in Mathematics and Physics are engaged in research for industrial firms or government departments. Two hold important positions in the Dominion Astrophysical Observatory at Victoria. One is director of Research for the Carbo-Ice Company of Canada, and has in some respects revolutionized the practice in regard to the storage and preservation of food-stuffs. Two are working in the laboratories of



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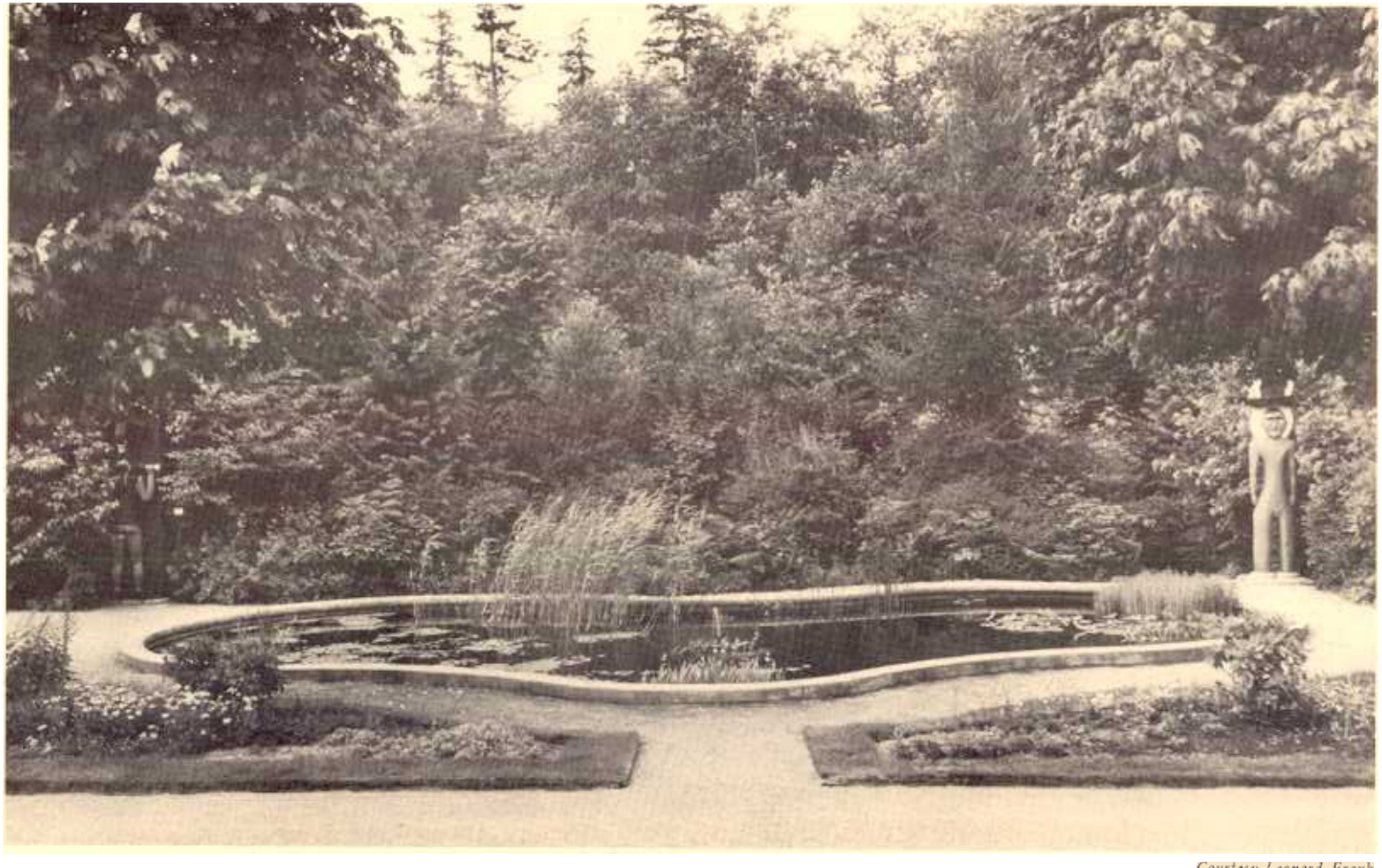
Courtesy A.J. Photo Service

The Musical Society of Gilbert and Sullivan Addagore



Courtesy Leonard Frank

The quatic Garden

Courtesy Leonard Frank

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the National Research Council of Canada at Ottawa. One of these is specializing in problems connected with the preservation of Canadian foodstuffs during transatlantic shipment. The other is engaged on the industrial application of very high frequency sound waves, an investigation which promises to produce results of vital importance to navigation.

Since the opening of the University some two hundred and twenty students have graduated in Chemical Engineering or have taken the Honour Course in Chemistry in Arts. Of these one hundred have proceeded to the Master's degree and sixty to the Doctor's. Eighty per cent of these graduates have found employment in Canada and sixty-one per cent, in British Columbia. There are very few types of industry in which these graduates are not now playing a part. The refining of petroleum products employs twenty-three, nineteen of whom are in British Columbia; the cellulose industries, including pulp and paper, rayon, plastics, leathers, varnishes, enamels, and explosives employ twenty-five; ten are employed by the Consolidated Mining and Smelting Company at Trail; fourteen others are with the cyaniding plants of various mining companies throughout Canada; and ten are connected with Canadian Industries Limited, du Pont de Nemours & Company, at Wilmington, Delaware, and Imperial Chemicals Limited at Widnes in England. Three are with the National Research Council of Canada at Ottawa; ten are in the Provincial and Dominion Government research laboratories; and eighteen hold teaching and research positions in various Canadian and American universities. Many of these graduates have reached positions of the highest responsibility, as, for instance, the Plant Superintendent of the Shell Oil Company, the Plant Superintendent of the Home Oil Company, the Chief Chemist of the British Columbia Sugar Refinery, the Assistant Superintendent of the Provincial Public Health Laboratories, the President of the Western Chemical Company, the Head Chemist of the Home Oil Company, the Superintendent of the Canned Salmon Laboratories, all of whom are in Vancouver; the Control Superintendent of the Powell River Pulp and Paper Company, the Head Chemist of the Britannia Mines, the Director of the Dominion Fisheries Experimental Station at Prince Rupert, the Chief Superintendent of the Shell Oil Company at Montreal, the Manager of the Hartford Rayon Company at Hartford, the Director of Research at Searles Lake, California, and the Director of Chemical Research for the General Electric Company at Schenectady.

Eighty-seven of the alumni have graduated in Geology and of these

forty-one have taken the Doctor's degree. Eleven are now employed by the Geological Survey of Canada, that is, nearly half of all the geologists employed in that department; thirty-nine occupy the position of geologist with different mining companies, most of them active within this Province, such as, for instance, Bralorne, Britannia, Premier, Pioneer, and the Consolidated Mining and Smelting Company; four, including the Provincial Mineralogist, are in the Department of Mines at Victoria; four are consulting geologists; and one is with the Geophysical Laboratory at Washington, D. C. The remainder will be found as administrators, executives, and professors, in their special field, in Canada, the United States, England, Rhodesia, South America, Java, and New Guinea.

Of the ninety-two graduates in Mining and Metallurgy the great majority are actively engaged in the development of the mining industry of this Province. They include the General Manager of Pioneer, the largest gold-producing mine in British Columbia; the Mine Superintendent of the Victoria Mine; and a former Mine Superintendent of the B.C. Silver Company at Stewart. One graduate is Smelter Superintendent of the Inspiration Copper Company in Arizona; another is Mill Manager of the Noranda Mines in Quebec; and another, who is now in academic work, was formerly General Mine Superintendent of the Britannia Mines.

By far the greater number of the graduates in Civil Engineering hold positions on the engineering staffs of the municipalities, the industrial plants, and the construction companies of the Province. One is Assistant Engineer for the City of Vancouver; one is City Surveyor; and another Underground Engineer of the British Columbia Electric Railway Company.

The following selection from the list of the graduates in Mechanical and Electrical Engineering completes this summary record of achievement. Among these are engineers holding positions with the British Columbia Telephone Company in Vancouver, Canadian Explosives in Victoria, the Consolidated Mining and Smelting Company in Trail, the Marconi Company and the Bell Telephone Company in Montreal, and the Brazilian Traction Company in Rio de Janeiro. One is Chief Engineer of Letson and Burpee in Vancouver, another is Chief Assistant Designer at the Canadian Westinghouse Company in Hamilton, another is head of five departments of the Canadian General Electric Company in Peterborough, and another was for a time Public Utilities Adviser to the City Council of Vancouver. Still another, a research engineer with the Westinghouse Electric Manufacturing Company in Pittsburgh, was recently selected by his firm to act

as their research representative with the Siemens Schuckert Company of Berlin.

The review here presented of the activities of the University alumni obviously cannot pretend to be in any way complete or exhaustive, having as its object merely to indicate some of the more distinctive features of graduate achievement. It is surely evident, nevertheless, that twenty-one years of energy and enterprise, not least on the part of her alumni, have given the University of British Columbia a place, however humble, among her elder sisters of Europe and America.

Student Activity

STUDENT self-government at the University dates from the very beginning. Early in the opening term Dr. Wesbrook had declared that it was "the desire of the Faculty and the President to see the students assume the responsibility of their own self-government." A constitution for an Alma Mater Society was accordingly adopted and an elective Students' Council set up. This body has ever since controlled the activities of the student body, administered its affairs, and enforced discipline.

In December, 1916, the first publication appeared, a monthly magazine called *Anon.* In January, 1917, it became *Anonymous,* and in February, *Ubicee.* In the autumn of 1918 the magazine developed into a weekly newspaper under the name *The Ubyssey,* and since 1925 it has been published twice weekly. The *U. B. C. Annual* made its first appearance in 1916. In 1926 it was re-christened *Totem* to conform with the two college yells, *Kla-how-ya* and *Kitsilano,* the names of which are associated with the Squamish Indians of the Pacific Coast. A Players' Club was formed in 1915, and a Musical Society in 1916. It is commonly agreed that both organizations have attained a very high standard of performance in their annual productions. The Campus swarms with other clubs, societies, and organizations, literary, scientific, social, religious, political, and athletic, which are far too numerous even to name. "Kla-how-ya Week," later called "Varsity Week" and still later "Homecoming," was inaugurated in 1921. Intended primarily to welcome the Alumni back to the Campus, it is given up to games, debates, a theatre night, and various social functions. It has become the climax of each college year.

The part played by the students in the war was in the highest degree creditable. Nearly seven hundred of them, including those of McGill University College, enlisted. Of these, seventy-eight lost their lives,

and 131 were decorated for gallantry by British and foreign governments. Mention should also be made of the excellent work performed by the students who stayed at home. This took the form of the despatch of parcels to the men overseas, special farm work to aid production, substantial contributions to the Victory Loan, and Red Cross activity. At the time of the terrible influenza epidemic, early in 1919, the University, which had had to discontinue its classes, gave up its buildings to the Hospital; and many of the students volunteered to act as nurses and orderlies in the emergency.

The memory of these war years is perpetuated by one small symbol. The yoke of the College gown is edged with khaki cord. Only the undergraduate wears this cord. It was intended as a perpetual reminder to the students of a later day, to symbolize for them the birth of the University during the war and to commemorate the war service of their predecessors.

The first years of the University of British Columbia were scarcely a time in which to expect much manifestation of college spirit. The majority of its older male students had abandoned their studies in order to enlist, and among the students who remained there was a not unnatural feeling that the momentous struggle then raging made insignificant the ordinary incidents of Campus life. Moreover, the absence of adequate buildings for study and recreation was a great hindrance to the development of University *esprit de corps*. What is really surprising is that college spirit did exist, none the less real for being serious and constructive.

For several years after the war, the classes of the University were largely filled with men who had returned from the front or the high seas. Keenly aware of the disadvantages under which they had been placed by the sacrifice of several valuable years in the service of the country, these students set an example of earnestness and steadiness, not only in studies, but also in extra-curricular activity. This tradition has continued, mainly no doubt because a very large proportion of the student body have been working their way through college. Their earnestness and their steadiness, too, are plainly manifest in the record of Campus activity. Mention has already been made, for instance, of the part played by the undergraduates four years after the war in arousing the public to a realization of the overcrowded conditions in Fairview and of the need for a transfer to Point Grey. During the summer and winter of 1922, they secured 77,000 signatures to a petition, which they subsequently presented to the Legislature, requesting that the Point Grey site might be speedily made ready for occupation. This petition was supplemented by parades and other demonstrations.

The climax of months of enthusiastic campaigning was a pilgrimage to the site on October 23, 1922. Every student who walked in the parade contributed one stone to a pile that was built in the Mall. This pile of stones was later constructed into the famous Cairn, where each year the incoming Freshmen are initiated into the tradition of service established by their predecessors.

All this activity on the part of the students was not, of course, actuated by self-interest, since obviously they could not themselves hope to enjoy the fruits of their efforts, but by the hope that their successors might be able to work unhampered by such disadvantages as they themselves had had to cope with. Another expression of this spirit was the construction of the Gymnasium. The funds for this building were raised by a bond issue, which the students themselves retired in 1935. The building was equipped by the Alumni; and, upon its completion, was presented to the University in 1929. During the next two years, 1930 and 1931, the students campaigned for funds with which to build a stadium. The playing field was constructed in 1931. And now, on the twenty-first anniversary of the University, the students are engaged in still another major campaign. The proposal is to erect a Students' Union Building, where they may have increased scope for activities of an extra-curricular kind. At present there is no focus for Campus life, and such a focus is greatly needed. The building will contain dining rooms, reading rooms, committee rooms, and club rooms, as well as a large hall. It will be dedicated to the memory of two kindly and generous friends of the student body, the late Dean and Mrs. R. W. Brock. The estimated cost is $150,000. Of this amount, the students have undertaken to raise one-fifth.

Among other important undergraduate traditions should be mentioned the Arts '20 Road Race. This race is still run, as it has always been, between the old Fairview site and the present Campus. Usually every class in the University takes part. It symbolizes the spirit that pervaded college life during the first ten years, when the removal to Point Grey often seemed an unattainable objective. It represents not only the progress of the students toward a definite goal, but also, since it is a relay race, the handing on of responsibility from class to class. It has become a tradition also that each graduating class should make a gift to the University. These gifts have been presented annually since 1919. They have been of various kinds, but all have been valuable. They include an undergraduate scholarship, an art collection, a fund of money, a trophy case, medical equipment for the

Health Department Office, the relay cup, the portrait of Dr. Wesbrook, the Chancellor's chair, the stone seats on the Campus, collections of books, records, and historical documents for the Library, the clock in the Auditorium, and the public address system that was installed on the stage last year.

All this Campus activity might suggest that the students are permitting non-academic pursuits to interfere unduly with their studies. But it is the conviction of the friends of the young University of British Columbia that there is no likelihood that such pursuits will ever assume, for the great majority at least, a dangerous preponderance over college work. The surest safeguard is the sane attitude of the students themselves on this point. They have passed a regulation that any undergraduate who undertakes to represent his fellows in an elective position, or in such activities as dramatics or debating or athletics, must maintain a prescribed standard in his classroom and laboratory. The number of graduates who, after an active Campus career in extra-curricular activities, have achieved distinction in scholarship, science, teaching, law, business, and the public service, is a sufficient witness to the commonsense and moderation of the student body.

THE youngest university in Canada has come of age. In the brief twenty-one years of its existence it has passed through two major cataclysms. It opened its doors during the second year of the World War; and before its could establish itself securely it was shaken to its foundations by the great financial depression. It may well be a matter for satisfaction to think that it has survived both calamities, and that now it is definitely entering upon a period of renewed activity and achievement.

The future is big with promise. The facilities for research of every sort which, because of its unique situation, the University offers, will in time become enviable. The climate is one of the finest on earth. The institution itself stands in a strategic position on the trade routes of the world, both by sea and air; and it is a meeting place of two great cultures—that of the European West and that of the Oriental East. There seems, indeed, to be no good reason why the University should not become a very important educational and cultural centre. Such, at any rate, is its dream and its assured hope. "It can bide its time," writes the official historian, "serene in the affection of its Alumni and secure in the quiet conviction that the early years of its history have set a standard of achievement which may be viewed by the students of the future with pride and respect."

The Arboretum in Winter

Courtesy Leonard Frank

Courtesy Bruce Robinson

Evening on the Campus