

# UBC Reports Reports Return POSTAGE GUARANTEED

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2

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## ENGINEERING DEAN NAMED

## Federal Grants Boosted

The increased federal per capita grant to universities for operating costs — up from \$40 million to \$100 million a year — will be distributed by formula financing recommended in the Bladen Report.

Prime Minister Pearson has authorized the Association of Universities and Colleges of Canada to use a system that recognizes varying costs in training different types of students in distributing the \$100 million during the 1966/67 academic year.

Mr. Pearson said, however, the increased aid is an interim measure, without prejudice and for one year only, made at the suggestion of the provincial governments and pending a federal-provincial conference to develop a "joint response" to university financing.

During that year, Ottawa will contribute an average of \$5 per capita, up from \$2 per capita, toward university operating costs. The Bladen commission recommended \$5 per capita in 1965-66, with an increase of \$1 each year thereafter.

The interim plan has another complication. Out of the \$5 per capita, \$4.30 will be divided by formula financing on a weighted basis, where types of students are given values ranging from 1 for a first or second year student, to 5 for a Ph.D. candidate.

The other 70 cents will be distributed nationally to universities in proportion to the number of students they have from outside their home provinces.

Mr. Pearson estimated that just under \$9 million from the total grant might come to B.C. Grants will be based on 1966/67 registration, and on DBS estimates of provincial populations at June 1, 1966.

UBC President John B. Macdonald said the interim grant is a useful temporary measure, but "it is crucially important that the provinces as well as the federal government recognize the pressing needs of the universities for annual increases in financial support."

#### Registrar Gives Notice Of Election

Machinery has been set in motion for the election of UBC's Chancellor and 15 members of Senate by Convocation.

UBC's registrar, J. E. A. Parnall, has issued official notification that election day will be May 25. On that day ballots will be counted and the names of the Chancellor and Convocation members announced to Senate.

Nominations for Chancellor and Convocation members of Senate must be in the hands of the registrar by March 2. Ballots will be sent to Convocation members within ten days or two weeks of the closing date for nominations.

The registrar's official notice of election and the names of those presently holding office will be found on page four.



DR. NEIL BARTLETT, UBC professor of chemistry who has been awarded the \$10,000 Research Corporation Award for 1965, holds the simple apparatus in which he combined xenon with another compound to form a stable substance. See story below.

## Research Corporation Awards Chemist \$10,000

UBC's Dr. Neil Bartlett has been chosen to receive one of North America's highest scientific honors for his frontier-breaking 1962 discovery that so-called "inert" gases can form stable substances.

Choice of the 33-year-old professor of chemistry for the \$10,000 Research Corporation Award for 1965 was announced in New York by J. William Hinckley, president of the non-profit Research Corporation.

#### NOBEL PRIZE WINNERS

The 1965 award to Dr. Bartlett is the 30th made by the Research Corporation since 1952 for outstanding contributions to science. Thirteen past recipients have subsequently won the Nobel Prize, usually in the field for which they received the Research Corporation Award.

Of the eight distinguished scientists on the panel which chose Dr. Bartlett, six are Nobel Prize winners. They include Prof. Melvin Calvin of the University of California, Prof. Polykarp Kusch of Columbia University and Prof. Robert B. Woodward of Harvard.

Dr. Bartlett was presented with the award at a dinner in New York on January 27. UBC President John B. Macdonald accompanied him to New York to represent the University.

Dr. Bartlett's citation said he was chosen "for his discovery that the noble gases form stable compounds. The overthrow of the entrenched belief that the so-called inert elements would withstand all chemical assault has given birth to a vigorous new branch of chemistry which will continue to yield new insights into the nature of molecules."

GREAT ADVANCE

UBC President Macdonald commented: "That this very important award has come to Dr. Neil Bartlett is no surprise. The work which he has done in respect to re-activity of the noble gases represents one of

the great advances of modern chem-

"Dr. Bartlett's work has received wide national recognition and has created a whole new field of chemistry engaging scientists all over the

world."

The Research Corporation, which along with the National Research Council of Canada financed Dr. Bartlett's research, grants more than one million dollars a year for basic scientific research in the natural sciences.

Please turn to page three See TEXTBOOKS REVISED Canada is not training a sufficient number of engineers to keep pace with the expanding economy, says the University of B.C.'s new dean of applied science, William M. Armstrong, 50.

His appointment was announced in January by UBC President John B. Macdonald. A UBC faculty member since 1946, Dean Armstrong has resigned the headship of the department of metallurgy, but will retain the title of professor of metallurgy.

As dean he succeeds Dr. David M. Myers, who resigned last summer to organize a new major university in his native Australia.

#### SEVEN DEPARTMENTS

The faculty of applied science includes a full time teaching staff of 92 and a student enrolment of 1266. It incorporates seven departments of engineering (agricultural, chemical, civil, electrical, mechanical, metallurgy, mineral) and the schools of architecture and nursing.

Commenting on Dean Armstrong's appointment, UBC President Macdonald said: "Great changes are taking place in the concepts of modern engineering education. These are being dictated by the demand for engineering and technological personnel, by new developments in engineering, by increasing reliance on science for innovation in engineering, and by the competition engineering education faces in attracting enough good students.

"Dean Armstrong is keenly aware of these issues through his own scientific and administrative experience. He is well qualified to lead the faculty of applied science during the years ahead. He recognizes and supports the need for closer integration of engineering within the university, within industry and within government.

"As the University of B.C.'s role places more emphasis on growth of professional and graduate opportunity, we are fortunate to have Dean Armstrong to lead the faculty of applied science."

#### MAJOR PROBLEMS

Dean Armstrong said that the two major problems facing engineering training in Canada are the low number of graduates, and the necessity to develop systems to continue the training of graduate engineers and to retain those in areas that grow obsolete.

"We are not producing engineering graduates at the rate required by Canada's expanding economy," Dean Armstrong said. "One result is that the starting salaries for young engineers have increased very signifi-

Please turn to page two See RETRAINING ESSENTIAL



DEAN WILLIAM M. ARMSTRONG

#### INCREASE ACADEMIC CONTENT

## Veteran Teacher Heads UBC Residences

The University of B.C. has embarked on a plan to increase academic content and atmosphere in campus student residences by appointing a veteran teacher, Dr. Malcolm McGregor, 55, as director of residences.

Dr. McGregor will continue as head of the department of classics said President John B. Macdonald.

As director of residences (a new title), Dr. McGregor succeeds director of housing John Haar, who has resigned to remain director of the new Centre for Adult Education at Elliot Lake, Ontario. Mr. Haar went on leave from UBC last spring to organize the new centre. Interim director of housing Knute Buttedahl recently was appointed associate director of the UBC Extension department.

#### NON-PROFIT BASIS

UBC provides nearly 3,000 beds on campus, the largest number at any Canadian university, at the lowest average room and board charge. The residences are operated on a non-profit basis with all costs paid by room and board charges to students and faculty living in them.

Dr. McGregor has been well-known for his active interest in student life and welfare since he came to UBC in 1954 to head the department of classics. An outstanding international scholar, he is a very active counsellor of students and frequent speaker at student and other campus affairs.

He is a strong advocate of participation sports for students, and a well-known player and coach, particularly in cricket and grass hockey.

#### ENRICHMENT

President Macdonald said that the new residences policy is in accord with suggestions for the enrichment of student life at UBC made in Guideposts to Innovation, a 1964 report of a President's Committee on Academic Goals.

"The object is to place greater emphasis on making residence life an academic experience," Dr. Macdonald said. "That is why we are appointing an academic.

"We chose Dr. McGregor because of his great understanding of students and his concern for the quality of student life on the campus."

Dr. McGregor said that he expected

#### FROM PAGE ONE

# Retraining Essential

cantly. But higher salaries will not solve the immediate problem. I can see no possibility of easing the shortage during the next decade."

Dean Armstrong said that retraining and continuing education of graduate engineers requires the development of methods that involve a minimum loss of working time by professional engineers, and make the best use of overcrowded training facilities.

"Industry, the universities and practising engineers agree on the need for retraining," Dean Armstrong said. "But so far there is little evidence of achievement in this area.

#### RETRAINING ESSENTIAL

"Retraining is essential because of the scope and complexity of scientific and technological changes now occurring, and the immediate impact these changes have on our economy and way of life."

Born in Hamilton, Ontario, Dean Armstrong graduated from the University of Toronto in 1937 with the degree of bachelor of applied science with honors.

Dean Armstrong came to Vancouver in 1946 as a scientist with the B.C. Research Council and joined the UBC faculty that year. He was appointed head of the UBC department of metallurgy in 1964, succeeding Dr. Frank Forward, who is on leave of absence serving in Ottawa as first director of the new Science Secretariat to the federal government.

Dean Armstrong is vice-president and president-elect of the 45,000-member Canadian Council of Professional Engineers and was president of the Association of Professional Engineers in B.C. in 1964.



PROF. MALCOLM McGREGOR

the residences' enrichment program would be built slowly.

"I regard this as an academic task," he said. "The students who live in campus residences should be made an integral part of the academic community. At the moment I think they are more-or-less living a hotel life.

"What we hope to do is to produce a regular academic program for all the residential areas, bringing them to the campus and the campus to them.

#### ADVISE STUDENTS

"This is something that will have to be done slowly. For example we might have various series of lectures on a broad range of subjects — once a week, say, for a number of weeks.

"I think we could bring academic advising to the residences. There is no reason why a team of faculty members should not visit the residences



GORDON SELMAN

during the second term to talk programs for the following year."

Professor Geoffrey Hugh Durrant, 52, has been appointed head of the department of English at the University of B.C.

The department is the largest at UBC registering more than 7,000 students, with 81 full-time faculty members and 51 part-time teachers.

Prof. Durrant's appointment is effective July 1, 1966. He comes to UBC from the English headship of the University of Manitoba. He was dean of arts at the University of Natal when he left South Africa for political reasons in 1961.

At UBC, Prof. Durrant succeeds Dr. Roy Daniells, who was named last June to the first UBC Distinguished Professorship as University Professor of English Language and Literature.

(Dr. Daniells also came to UBC (in 1948) from the Manitoba English headship to head the UBC English department).

Prof. Durrant has had an unusually varied career as soldier, in adult education, in politics, in literary criticism and in broadcasting, as well as in his academic work lecturing and writing on English literature.

"He is a man of vision and imagination who is willing to devote his energies to the highest educational ideals," UBC President Macdonald said.

"I am sure that as new head of the English department, he will bring strength and distinction to the largest and most complicated department within the University structure.

"He is a perceptive, sensitive scholar, a sound and strong administrator, a man of high ideals, and a human, warm individual."

## Increasing complexity in the development of UBC's Health Sciences Centre has led to the appointment of Dr. Donald C. Graham, 51, as associate dean of medicine.

Dr. Graham is a leading expert on the Canadian medical scene. He has been editor of the Canadian Medical Association Journal for five years. He joined with Dean John F. Mc-Creary in directing medical affairs at UBC on January 1.

"As complexity of development in the Health Sciences Centre increases, Dr. McCreary will be more involved with inter-relationships between the faculties and schools in the centre and the development of the University teaching hospital," President Macdonald said. "Dr. Graham will help to share the heavy load of administration within the faculty itself."

Dr. Graham will also be assistant professor in the department of medicine.

#### JOURNAL EDITOR

Dean McCreary said that in five years under Dr. Graham's editorship, "The Canadian Medical Journal has increased from a monthly to a weekly publication of world wide interest, and two other journals have been taken on by the Canadian Medical Association. These advances have been due to Dr. Graham's enthusiasm and organizational ability.

"Due to his position as editor of the Journal, Dr. Graham is probably more familiar with the Canadian medical scene than any other physician in our nation."

Born in Toronto, Dr. Graham took his degree in medicine at the University of Toronto, served in the Royal Canadian Army Medical Corps briefly in 1940, and in the Royal Canadian Air Force, where he rose to wing commander, from 1940 to 1945.

## A Vancouver-born graduate of the University of B.C., Gordon Rex Selman, 38, has been appointed executive assistant to President John B. Macdonald.

Mr. Selman has been with the UBC Extension department for 11 years, and has been associate director of the Extension department since 1960. SOUND JUDGMENT

"I am delighted that Mr. Selman has agreed to accept the post of executive assistant to the President," Dr. Macdonald said. "He has amply demonstrated his flair for administration and his sound judgment in the Extension department.

"I know his colleagues there will be sorry to lose him but they will be happy to see his abilities serving the whole University in his new post."

Mr. Selman succeeds Prof. Geoffrey O. B. Davies, who has been on leave of absence since July, 1964, serving as research associate to the Bladen Commission, and who became dean of arts and science at Brock University January 1.

Mr. Selman enrolled at UBC in 1945 and obtained successively his bachelor of arts degree, a teaching certificate and his master of arts, for which he wrote a thesis on the history of the UBC Extension department.

He was an assistant in the history and international studies department at UBC, and served as research officer in the communications branch of the National Research Council in Ottawa before joining the UBC Extension department in 1964.

#### NEW UBC PROGRAMS

## Senate Approves Revision in Arts

The UBC Senate has approved a proposal which will strengthen the academic program of the faculty of arts, President John B. Macdonald has announced.

The newly-approved regulations will affect third and fourth year students taking programs leading to the bachelor of arts degree.

Until now most students studying for the BA degree have been required to choose two "major" subjects and to complete nine units (three courses) in each area of study in the third and fourth years.

In future students will elect a single major subject and will be required to complete 15 units (five courses) in this one area. The number of units (60) which a student is required to take in all years of University to obtain his degree remains unchanged. STRENGTHEN OFFERINGS

Dr. Dennis M. Healy, UBC's dean of arts, said the new regulations are the first results of a continuing study designed to strengthen the overall offerings of the arts faculty.

He said the new regulations will enable third and fourth year students to undertake concentrated study in a single subject or one area of concentration and at the same time choose courses in other areas which support his major area of interest.

Other advantages which will result from the new program are better preparation for graduate work and the fact that a single department will be responsible for a student's program, Dean Healy said.

UBC has taken another step in the direction of creating a unique program of coordinated teaching and research in mining with two other Canadian universities.

Senate has given approval to a proposal for the introduction of a doctor of philosophy degree program in mineral engineering. As a result, UBC, Queens and Laval Universities

will be able to proceed further with plans to cooperate in research and teaching in mineral engineering.

Dr. Charles Emery, recently appointed head of UBC's mineral engineering department, said the introduction of the Ph.D. program at UBC will make it possible for the three universities to exchange students and faculty members.

The aim of the tri-universities program is to avert a threat that lack of mining skill will knock Canadian mining out of world competition. The mineral engineering departments at each university will concentrate on graduate training of mineral engineers and research in half a dozen special mining fields. UBC will undertake research immediately in rock mechanics and mineral dressing. AVOID DUPLICATION

The programs will avoid overlapping and duplication of expensive equipment through a coordinating committee consisting of the deans of engineering and mineral engineering department heads of the three universities.

Six students are enrolled at UBC this year for graduate study and a total of \$50,000 has been received by UBC this year alone for research projects.

## UBC Reports

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TENDERS have been called for the new \$1,500,000 music building on the site of the Norman MacKenzie Centre for Fine Arts on the UBC campus. The building, to be located between the Frederic Lasserre building and the UBC armoury will be constructed with funds from the provincial government, the 3-Universities Capital Fund and a \$600,000 grant

from the Canada Council. The four-storey building will include a recital hall seating 285, rehearsal halls, practice studios and a music library seating 100. Architects for the airconditioned building, which will accommodate 300, are Gardiner, Thornton, Gathe and Associates. Expected completion date for the project is the spring of 1967.

#### IN RECORD 13 MINUTES

# Forestry Professor 'Grows' Timber in UBC's Computer

It takes Professor Harry Smith of the University of British Columbia exactly 13 minutes to "grow" a 100year-old stand of timber.

Prof. Smith, of UBC's faculty of forestry, uses an IBM 7040 computer which employs mathematical models to simulate forest growth over long periods of time.

MODELS CHECKED

The mathematical models which Prof. Smith develops in the computer are checked against yield tables describing actual stands of timber.

His basic data was obtained from studies of naturally open-grown Douglas fir trees in B.C. and Washington. Some of the studies were carried out on UBC's 10,000-acre research forest north of Haney in the Fraser Valley.

When the programs, which take into account most of the known factors affecting tree growth, are loaded into the computer, the machine can then study the growth of individual trees to determine how various programs of thinning and replanting will affect growth rates and yields at different

The computer gives accurate predictions at five year intervals, for a century ahead. "If we didn't have the computer," says Prof. Smith, "it would take 100 years of observation to evaluate predictions about the number of trees which would remain at the end of the century, their average diameter, height, volume, and many other statistics.

The data churned out by the computer in a mere 13 minutes makes it possible to construct tables showing all this information quickly.

The research using mathematical models to predict forest growth was initiated as an extra-mural research project for the Canada department of forestry in 1963.

#### PREDICT GROWTH

"The object of these computerized studies," says Prof. Smith, "is to predict how we should be growing trees.

"Using mathematical models, the forest industry will be able to make decisions about planting, replanting, thinning and other factors such as wood quality and value without waiting a century for the results."

Robert N. Newnham, a 1958 master of forestry graduate of UBC, developed the first programs for stand

growth simulation as part of his studies for the Ph.D. he earned from UBC in 1964.

Dr. Newnham, who is now a research officer in the Canada department of forestry in Ottawa, this year developed mathematical models to imitate the passage of a mechanical tree harvester through a stand of timber.

#### TREE HARVESTING

Dr. Newnham now can use a computer to determine the cost of tree harvesting using different machines and thus enable companies to choose the most economical.

A second team of assistant professors in the UBC faculty of forestry is using the computer to take the tedium out of summarizing the results of timber cruises.

Donald D. Munro and Tony Kozak have developed methods of determining accurately and rapidly just how much timber is available for logging on specified land areas.

As with Prof. Smith's studies, the computer has to be programmed carefully. They guided their studies with an immense amount of data which was obtained initially from the UBC Research Forest.

These programs were modified and extended during the past summer under contract to Industrial Forest Service Ltd., of Prince George, which carried out timber cruises under contract.

#### OBVIOUS SAVINGS

Munro and the Prince George Company carried out a total of six cruises in the Prince George area in the past summer and transferred the data to punch cards.

In 73 minutes the computer answered with statistics which would have taken four to six months to obtain manually.

"Even with computing costs of \$5 per minute," said Munro, "the savings are obvious. In addition, there is a great gain in completeness and accuracy of analysis, and a large reduction in the time lag between field work and report preparation."

#### 3 UBC REPORTS

JAN. - FEB., 1966 VOLUME 12, NO. 1

## Library Collection To Treble

Increasing support by private donors and the administration of the University of B.C. will enable the UBC Library to achieve expansion in 10 years that might have taken 25 years, says Librarian Basil Stuart-Stubbs.

He predicted that the present 700,000 volume UBC collection would grow to 2,000,000 volumes by 1975.

Reporting to the UBC Senate on the year ending Aug. 31, 1965, the librarian said the year marked not only the Library's first half century but "a starting point" to much greater dimensions in library operations.

"No year in its history has been so marked by events of far-reaching significance."

#### DOUBLE BOOK PURCHASES

Commenting on the \$3 million gift in February by Dr. H. R. MacMillan for the purchase of books over the next 10 years, Mr. Stuart-Stubbs said: "By this single act the university was assured a collection equal to the demands of research and graduate study.

"Book purchases doubled instantly. It is possible to predict the library will treble in size within a decade."

The first successful year of operation of The Woodward Library for bio-medical science — construction of which was made possible by a \$440,000 gift, providing half the cost, from Mr. and Mrs. P. A. Woodward's Foundation — "demonstrated that a system of such libraries serving allied disciplines would be the solution to the information needs of a university large in physical size, enrolment and program" the UBC librarian said.

Two additional specialized libraries already are assured in the forestry-agriculture complex, now under construction, and the planned music building, for which tenders have been authorized by the UBC Board of Governors.

Other decentralized, specialized libraries would follow to serve undergraduate students, and the faculties of science, applied science and education.

#### AUTOMATED LIBRARY

Mr. Stuart-Stubbs reported that during the year, work was completed on the establishment of data-processing equipment to provide an automated system of lending books, and an experienced systems analyst added to the staff to accelerate future application of computers in library work.

A phonograph record library has been added, and equipped with the largest listening facility at any Canadian university through a gift from Dr. and Mrs. Wallace Wilson.

Mr. Stuart-Stubbs warned, however, that the pace of library growth would require additional stack, public and work areas, as well as study areas, by 1968.

He said library purchases had increased by 31 percent to \$516,153 during the 1964-65 fiscal year, and library output had increased 11 percent despite such difficulties as building alterations, new staff training and compiling new catalogues.

#### SPECIALIST LIBRARIANS

Mr. Stuart-Stubbs said "the day of the general librarian is over . . . the librarian has become less the mere caretaker of books and more the specialist in the retrieval of information. It is upon these specialists that the public often rely in finding answers to questions relating to the nature, existence and location of information. It is also the task of librarians to provide most students with assistance and instruction in locating information for themselves."

The librarian said that UBC's book collection had been doubled to 700,000 volumes over the last seven years.

"Dramatic as such growth may be, however, it will not bear comparison with the growth of the next few years, when the effects of Dr. H. R. Mac-Millan's generosity will be felt . . . At the end of a decade our book collections will contain over 2,000,000 volumes, a size we might not have attained under normal circumstances within a quarter century.

"Reflected in every line of the book budget was the fact that the library had joined the ranks of Harvard and the University of California in purchasing power."

#### FROM PAGE ONE

### Textbooks

It was in March 1962, that Dr. Bartlett, working in his cluttered laboratory at UBC with remarkably simple equipment, demonstrated that xenon, one of the so-called "inert" elements, would react with another compound to form xenon hexafluoroplatinate, a substance never before seen on earth.

As a result, chemistry textbooks the world over have had to be revised and the work will have an important bearing on prevailing valence theory, a branch of chemistry which tries to explain how and why elements combine with one another.

#### THEORIES CONSTRUCTED

Because it was believed that the noble gas group of elements—helium, xenon, argon, neon, krypton and radon — did not combine to form true compounds chemists were able to construct theories about the electronic structures of the elements that did.

### Revised

Dr. Bartlett has received a number of other honors since announcing his work. In April, 1963, he was selected to give the inaugural Noranda lecture of the Chemical Institute of Canada, an annual award to the individual judged to be the most outstanding scientist in Canada under the age of 40 working in the field of chemistry.

#### FIRST WINNER

The same year he was named the first winner of the E. W. R. Steacie Memorial Fellowship by the National Research Council. The award, named for a former NRC head, paid half Dr. Bartlett's salary and allowed the University to free him from all teaching duties and devote full time to research.

In 1964 he was awarded a fellowship by the Alfred P. Sloan Foundation of New York to aid his research.



LEWIS CARROLL collection presented to the UBC Library by the Class of 1925 includes a facsimile reproduction of "Alice in Wonderland," in Carroll's handwriting and illustrated by the author. The two illustrations above by Carroll



show Alice holding the key which leads to a magic garden, and the queen of hearts berating Alice during the trial of the knave of hearts, who stole the tarts. More than 400 items are included in the collection.

#### 40th ANNIVERSARY MARKED

# Class of '25 Gives Carroll Collection to UBC Library

UBC has been presented with Canada's foremost collection of the works of Lewis Carroll and material about the creator of "Alice in Wonderland."

The gift was made by the Class of 1925 to mark the 40th anniversary of graduation from UBC, and the 100th anniversary of the original publication in London by MacMillan & Co. of "Alice's Adventures Underground."

The collection is the fruit of seven years of collecting in Europe and North America by R. D. Hilton Smith of Victoria, B.C. It is rich in first and early and limited editions and includes more than 400 different publications, ranging in date from 1858 to

#### EVERY ASPECT COVERED

The collection covers every aspect of the 19th century writing for children under the nom de plume "Lewis Carroll" by Rev. Charles Lutwidge Dodgson, a fussy and fastidious bachelor professor of mathematics at Christ Church, Oxford.

Housed in the special collections section of the University of B.C. library, the collection is the only one of its kind in Canada. It includes several items not in such notable collections as the Parrish at Princeton University, and the Amory at Harvard.

There are 200 editions of "Alice in Wonderland" and "Through the Looking Glass". About half carry the famed illustrations by Sir John Tenniel, which some experts believe never have been surpassed. The other half, however, carry illustrations by some 80 other artists.

Two volumes were signed in old age by "Alice Hargreaves."

Alice Liddell Hargreaves was one of the three small daughters of Dodgson's stern dean at Christ Church. As Dodgson recorded the beginning in a

## \$500 Gift for UBC Kidney Unit

Saving the life of an employee of MacMillan, Bloedel and Powell River Ltd. has resulted in a \$500 donation to the University of British Columbia's department of medicine from the employees' charity committee of the Vancouver plywood division.

Mr. D. P. McGougan, committee chairman said, "This is a direct result of the wonderful work performed on behalf of our own fellow employee."

The donation was sent to the department to help in developing the artificial kidney unit at the Vancouver General Hospital. It will be used to buy a special pump needed for the unit.

The employee, who is now back on the job full-time, has received treatment on the unit twice a week for the past seven months.

The artificial kidney unit removes impurities from the blood, the function normally performed by the kidneys. The unit, developed a year ago, was the third artificial kidney unit in Canada. Now there are eight in hospitals throughout the country.

marvel of understatement in his diary: "July 5, 1862: I made up an expedition up the river to Godstow with the three Liddells; we had tea on the bank there and did not reach Christ Church until half-past eight."

He made no mention of how Alice first popped down the rabbit hole that afternoon as the four left their punt to sit in the shadow of a hayrick by the Thames and the real Alice urged Dodgson on with story-telling that lasted "all the golden afternoon."

Later he wrote and illustrated "Alice's Adventures Underground," published in 1865, and eventually expanded it to the final classic, "Alice in Wonderland."

#### FIRST EDITION

The UBC collection contains a copy from the first "people's edition."

"Alice" sold for six to eight shillings when first published and author Carroll complained to the publisher: "My feeling is that the present price puts the book entirely out of reach of many thousands of children of the middle classes (below that I don't think it would be appreciated)."

The collection includes 60 parodies and imitations of Carroll's works (e.g. Clara in Blunderland," "Malice in Kulterland (1914)," "Alice in the Delighted States," "Adolf in Blunderland (1925)"), some 60 editions of other books by Carroll, some 60 books about Carroll, 30 musical and dramatic versions of his works, as well as film and recordings, 15 collections and sections of his works, and 20 miscellaneous pieces.

### Summer Earnings Up in 1965

University of B.C. students earned an estimated \$13,415,222 at summer jobs during 1965, the UBC Office of Student Services reports.

Working from a survey in which 16,253 students participated (of 16,253 registered), the office found that summer earnings increased "substantially" in 1965 over 1964.

However, allowing \$1,400 as the minimum necessary for an academic session, the report said, "less than 20 percent of men students and two percent of women students reported an income sufficient to finance an academic year." The study showed that 40 percent of men students and 37 percent of women students had parttime winter employment or required

it for support while attending UBC. While earnings increased among students in all faculties, the increases in 1965 over 1964 for men (excluding graduate students and freshmen) ranged from \$40 in forestry to \$168 in pharmacy. Mean earnings by faculty ranged from \$908 in music to \$1,361 in applied science.

A total of 13,213 students (8,892 men, 4,321 women) reported earnings of \$12,507,200, but allowance for employed students who did not return their survey cards raised the estimated total earnings to \$13,415,222.

Among 13,644 undergraduate students, 3,654 (26.4 percent) gave teaching as their objective, the largest numbers in any single field.

Of students participating in the study, 2,427 are married and have 1,970 children. By sex, 1,740 men (16.2 percent are married and have 1,409 children, and 687 women (10.2 percent) are married and have 561 children.

## **400** Sought for Overseas Service

Canadian University Service Overseas has launched a national campaign to recruit 400 volunteers for overseas service in developing countries in 1966.

It is hoped that 60 to 75 of CUSO volunteers will come from British Columbia.

Since the initial group of 17 volunteers travelled overseas in 1961 to serve in four different countries, CUSO has grown to its present size of 341 volunteers serving in 29 countries throughout Asia, Africa, the Caribbean, and Latin America.

With the placement of 400 new volunteers, CUSO will have 600 in the field by September, 1966. The long range plan calls for 1,000 volunteers serving overseas in 1967.

CUSO is a national organization which selects Canadians with post-secondary school education (not just university graduates) to serve overseas in response to specific requests from developing countries.

#### NOMINATIONS DUE MARCH 2

## Registrar's Official Notice of Election

8

Notice is hereby given that in accordance with the resolution passed by the Senate at its meeting on Monday, December 20, 1965, the election of the Chancellor and of the fifteen members of the Senate to be elected by the members of Convocation of the University of British Columbia will be held on Wednesday, May 25, 1966.

Nominations for these offices must be in the hands of the Registrar not later than Wednesday, March 2, 1966.

Those eligible to stand for election are members of Convocation who are not members of the Faculties of the University.

The attention of those concerned is directed to section 28 of the Universities Act: "(1) All nominations of candidates for the office of Chancellor shall be signed by not less than seven persons entitled to vote in the election of the Chancellor. (2) All nominations for candidates for membership

in the Senate shall be signed by not less than three persons entitled to vote in the election of the Senate."

In accordance with the Universities Act an election register has been prepared of the names and known addresses of all members of the Convocation who are entitled to vote at an election and the register is open to inspection at all reasonable hours by all members entitled to vote.

The Chancellor and members of Senate elected by Convocation will take office following the final degree granting ceremony held during Congregation in June, 1966. JOHN E. A. PARNALL,

Registrar
A list of those holding office for the

three year term, 1963-66, follows: CHANCELLOR: Phyllis G. Ross,

C.B.E., M.A., LL.D.

MEMBERS OF SENATE ELECTED
BY CONVOCATION: Mrs. H. F.
Angus, B.A., Vancouver; Richard M.
Bibbs, B.A.Sc., West Vancouver; Ken-

neth P. Caple, M.S.A., Vancouver; Wil-

lard E. Ireland, M.A., Victoria; Joseph

E. A. Kania, M.A.Sc., Ph.D., Vancouver; J. Stuart Keate, B.A., Vancouver; Hugh L. Keenleyside, M.A., Ph.D., LL.D., Vancouver; Malcolm F. McGregor, M.A., Ph.D., F.R.S.C., Vancouver; Mrs. H. J. MacKay, B.A., Revelstoke; Eric P. Nicol, M.A., Vancouver; The Hon. James Sinclair, B.A.Sc., B.A., M.A., North Vancouver; Frank Turnbull, B.A., M.D., F.R.C.S., Vancouver; The Hon. Mr. Justice David R. Verchere, B.A., Vancouver; Harry V. Warren, B.A., B.A.Sc., D.Phil., F.R.S.C., Vancouver; Arnold A. Webster, M.A., Vancouver.

UBC Reports

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