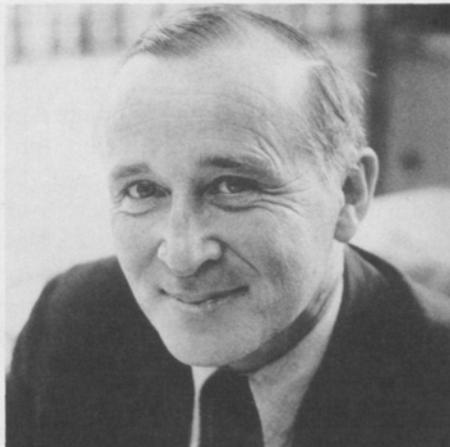


Cranch Accepts WPI Presidency After More Than Five Years as Engineering Dean Here

Edmund T. Cranch, sixth dean of the College of Engineering here and a Cornellian since his undergraduate years, will become the twelfth president of Worcester Polytechnic Institute this summer.

Cranch's thirty-four year association with Cornell began in 1943 when he entered the Navy V-12 program after completing two years at the Newark College of Engineering. He was graduated with a baccalaureate degree in mechanical engineering in 1945, received the Ph.D. in mechanics, mathematics, and physics in 1951, and then joined the faculty as an assistant professor of mechanics and materials. By 1956 he was a full professor and head of that department. In 1962 he became a professor in the Department of Theoretical and Applied Mechanics and served as chairman of that group from 1966 to 1968. Since 1967 he has served in the College administration, first as associate dean for graduate study and research and then, since 1972, as dean.

In the Cornell engineering deanship, Cranch succeeded Andrew Schultz, Jr., who returned to teaching as professor of



operations research and industrial engineering after nine years (1963-72) as dean. Others who preceded him as dean of the College were Dexter S. Kimball (1921-36), Herman Diederichs (1936-37), S. C. Hollister (1937-59), and Dale R. Corson (1959-63).

At WPI, in Worcester, Massachusetts, Cranch will head a science and engineering institution that was established the same year as Cornell University, in 1865, and is about the size of the Cornell College of Engineering.

In addition to his engineering teaching and administrative service at Cornell, Cranch has participated in educational and policy-making activities at the University level. In 1970 he was elected to a five-year term as a faculty member of the Board of Trustees, and for four years served on the board's executive committee. In the early 1970's he was chairman of the President's Special Committee on Long-Range Financial Planning. He has worked also in the area of minority affairs: he served on a 1968 presidential commission on racial disturbances and in the period 1974-76 he was chairman of the University's Committee on Special Educational Projects (COSEP). Other University groups with which he has worked have been concerned with the ROTC program and the residential environment at Cornell. Last year he was appointed Cornell representative to the Ivy Policy Committee, an advisory group to the Council of Ivy Group Presidents.

Cranch has contributed to the development of academic and research programs in a number of areas. He has

include the dynamics of shells and wave propagation in solids, and he has published a number of papers on these subjects. He spent sabbatic leaves conducting research at Stanford University as an NSF faculty fellow, and at the Swiss Federal Institute of Technology in Zurich as a senior postdoctoral fellow. He is an author of a text on engineering mathematics and has served as a reviewer for two professional journals in the field of applied mechanics.

He has also maintained affiliations with industrial organizations throughout his career. He spent a year at the Bell Telephone Laboratories after completing his Navy service, and since his appointment to the Cornell faculty has served as a consultant to a number of industrial firms, including Lincoln Laboratory, the Cornell Aeronautical Laboratory, General Electric, Bausch & Lomb, IBM, Ohaus Scale, and the Electromechanical Corporation. He is a member of the boards of directors of a number of industrial, educational, and business organizations.

Cranch has participated also in national professional activities. He has served on the National Academy of Engineering Panel on the Role of U.S. Engineering Schools in Development Assistance, as a member of the Task Force on Organization Study of the American Society for Engineering Education, and of the New York State Rural Development Advisory Council. He is a fellow of the American Society of Mechanical Engineers and a member of several other professional societies, as well as the honoraries Tau Beta Pi and Sigma Xi.

He is married to the former Virginia Harrison and has three grown children.

An alumnus of Worcester Polytechnic Institute who has been a close Cornell associate of Edmund T. Cranch throughout his years as engineering dean reflects on Cranch's appointment to the WPI presidency. Donald F. Berth, now director of engineering development for the College of Engineering at Cornell, has been at the College since 1962. He holds the B.Ch.E. and M.Ch.E. degrees from WPI.

■ Thirty-four years at Cornell. For an undergraduate from New Jersey, the move to the University here was hardly what he had anticipated. It was the Navy that sent Ed Cranch to Cornell for the wartime V-12 program, and for the beginning of what turned out to be a remarkable and possibly unique career at the College of Engineering. It is a thorough Cornellian that Worcester Polytechnic Institute has chosen for its new president.

For those of us at the College and the University, this is a time for reflection on what Ed Cranch has done for us. I would like to participate in this reflection, for my association with him has extended throughout his years first as associate dean and later as dean. Any individual's assessment is bound to be incomplete, for no one man sees the total person or is aware of the full chronicle of events in the course of a career. Thus, what follows are impressions formed over the years of my association with him.

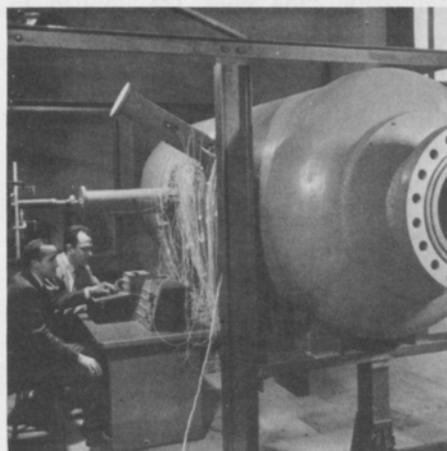
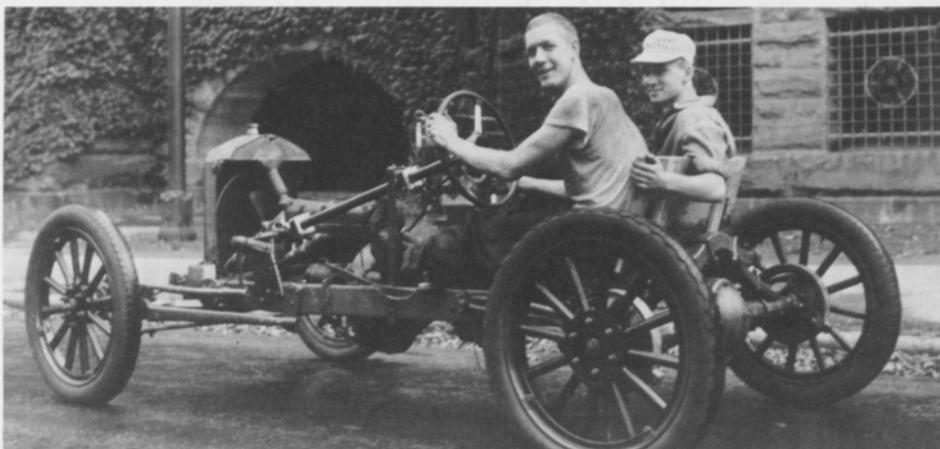
When Ed Cranch became dean of engineering, he brought to a tough job the qualities of an unassuming manner, openness, attentiveness, and kindness. It is truly remarkable that after almost six years as dean, those qualities remain

been a member of the faculties in engineering physics and mechanical engineering, as well as materials and mechanics. As dean, he has helped organize and advance programs in many areas of research and instruction. He has served on the executive committees of the Materials Science Center, the Center for Applied Mathematics, the Center for Water Resources and Marine Sciences, and the Center for Environmental Research. He was a member of the Geological Sciences Evaluation Committee prior to the reorganization of that department in the early 1970's. He was the principal instigator of a project proposal on "Environmental Quality and Societal Needs" that resulted in a quarter-million-dollar grant to Cornell from the NSF, and he has served as director of the Program on Policies for Science and Technology in Developing Nations, a program that received funding of three-quarters of a million dollars from AID.

Cranch's activities during his years at Cornell have included scientific research as well as educational development and administration. His research interests



Looking back with Edmund T. Cranch. 1. Here he is as a high school baseball player. 2. As Cornell mechanical engineering undergraduates, Ed and his roommate Robert L. Dwight (now at Westinghouse in Baltimore) built this "Dwightmobile." 3. Ed completed college in the Navy V-12 program. 4. His graduate and early faculty research involved work on stresses in pressure vessels. (Before this testing, Ed had climbed inside to attach strain gauges while safety patrol officers stood by.) 5 and 6. Later he served as chairman of the Department of Theoretical and Applied Mechanics, as associate dean, and then as dean.



intact. He makes people feel significant; colleagues, University administrators, alumni, secretaries—all seem to appreciate his personal qualities as well as his professional ones. It is rare to encounter a man cast in a leadership role who seems so at peace with himself and, by extension, with others.

Of course, openness and accessibility can be a liability. Ed's willingness to share his time with others has never been measured in the manner of an efficiency expert. He is not a man to be rushed by anyone: I have sometimes "needled" him by claiming he tells time with a calendar rather than with a clock. As dean he showed an uncanny skill in privately ranking priorities and giving his reflective and measured attention to the most important things first, sometimes to the dismay of those who presented low-priority questions or problems. He has an underlying courage and toughness. His decision-making has been thorough, rational, resolute. Still, he respects the opinions of others; as dean he rarely formulated key decisions without seeking advice.

When Ed became dean in December, 1972, the College was in good shape. Its research program was flourishing, the students' educational options were broad, and the quality of the undergraduates was high. What the College needed were: more senior faculty members of national stature; selective improvement of the graduate program, particularly in areas of great national significance; better financing of the Master of Engineering degree program; and a greater synergism between departments that could lead to new directions in both research and instruction. (This latter idea, incidentally, is a favorite one at Cornell: the diversity of resources offers great possibilities for innovation, though too often the surface is hardly scratched.) The challenge was that all of this had to be undertaken in a new era of fiscal constraint. Ed had to say *no* more often than his predecessors had had to, and not infrequently to ideas of merit. His criterion seemed always to be the long-range educational benefit—how to best prepare Cornell engineering students at all levels to assume professional leadership. One of his favorite comments was that in any university, "the pure (as applied to teaching, research, service) drives out the applied," and he worked hard to keep his College a center for *engineering and applied science*.

One of Ed's chief contributions to the College was to bring fresh leadership to several of the departments and schools. With his help and support, both recognized and good younger people (often from within the University) were selected for departmental leadership. With the infusion of funds and new faculty appointments, Ed helped

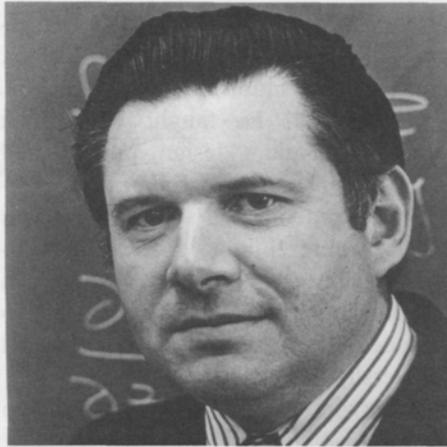
put a modern geological sciences department on its feet, and he helped add new vigor to the faculty and programs, especially in chemical, electrical, and environmental engineering, and materials science and engineering. In addition to these efforts for specific departments and schools, there was a project of special importance to him: a strengthening of the overall Master of Engineering program. Like his predecessor, Ed believed that the *professional* thrust of this program not only benefitted the students, but also served the long-range interests of the College. Cornell engineering has had a long-standing reputation for the excellence of its professional preparation of graduates, but this is an aspect of the educational program that requires sustenance from "on top," especially with a faculty largely characterized by vigorous research interests and efforts. Not the least of Ed's contributions to the M.Eng. program was in the area of finance; he worked hard to obtain funding for this, as well as for other programs and facilities, and he was very effective.

Many people at Cornell probably know Ed Cranch mainly as the author of the "Report of the Advisory Committee on Financial Planning" (known as the Cranch Report), which was written just before he became dean. Or they will remember him as chairman of the University's Committee on Special Educational Projects, which had to cope with problems connected with Cornell's program for the education of minority students. In both these areas, the issues were complex, difficult, and controversial, and seemed to be "no win" situations for these committees and especially for their chairman. Ed Cranch

accepted these assignments, and others as well, out of a well-rooted loyalty and affection for Cornell. Those who knew him were not surprised by his calmness in the storms, coupled with a strong adherence to his convictions.

By nature a private rather than a public man, Ed Cranch enjoys working in a one-on-one mode. Those who come in direct contact with him are generally impressed not only by his manner, but by his memory for people, facts, events—everything. It is perhaps evidence of his attentiveness and care. And, of course, some people at Cornell have come to know Ed Cranch more personally. They know, for example, about his regard for hockey that began in his student days and still keeps him on the ice as a skater as well as in the stands as a fan. Perhaps encouraged by his wife, Virginia (a Russell Sage graduate and former nurse), he maintains a surprisingly vigorous conditioning program; even during this winter's heavy snows, the Cranches were out there regularly shoveling their driveway. Acquaintances also know about Ed's regard for things old: he is an avid collector of antique furniture and Oriental rugs; and until the equilibrium between rust and metal shifted toward almost pure rust recently, he could be seen riding around in a late-1950's car.

Cornell is fortunate to have "landed" that young seaman so many years ago. His substance, style, and service will leave a lasting imprint here. Now WPI has chosen wisely. I am confident that Ed and Virginia Cranch will make an enduring contribution to my alma mater.—DFB



Gallagher Named Dean at Arizona

Richard H. Gallagher, professor and chairman of the Department of Structural Engineering, has accepted the deanship of the College of Engineering at the University of Arizona, effective in July. At Arizona he will head a college with five departments and about sixteen hundred undergraduate and more than three hundred graduate students.

He brings to his new position a background of experience not only in university teaching, research, and administration, but also in professional engineering. Before joining the Cornell faculty in 1967, he worked for seventeen years as a structural engineer, twelve of them with the Bell Aerosystems Company. He was employed also by the Civil Aeronautics Administration and Texaco, Inc., and has been a consultant to Bell, IBM, Ford, and Union Carbide. He is a licensed engineer in New York State.

Gallagher has written many papers

and books on finite element analysis, his specialty field. *Finite Element Analysis Fundamentals*, a text published by Prentice Hall in 1975, has been translated into Japanese, German, and French. *Matrix Structural Analysis*, with Gallagher and his Cornell colleague William McGuire as coauthors, will be published in the near future by John Wiley. In addition, Gallagher has served as coeditor of the *International Journal for Numerical Methods in Engineering*.

In 1973-74 he spent a leave as a Fulbright fellow in Australia and as a visiting professor at the University of Tokyo and the University of Wales. His professional activities at the international level also include organizing and chairing symposia on the use of computers in structural design and analysis.

He holds baccalaureate and master's degrees in civil engineering from New York University, and the Ph.D. in structural engineering from the State University of New York at Buffalo. He is a member of a number of professional societies in civil, structural, and aeronautical engineering.