MARCH
ROCHESTER CLUB OF PHILADELPHIA, Executive and Nominating Committee meeting to prepare a slate of officers and program for year ahead.
NEW YORK ORATORIO SOCIETY CONCERT, Dr. Howard Hanson conducting. Reception on following day sponsored by the University of Rochester Club of Greater New York.
ROCHESTER CLUB OF PHILADELPHIA, informal luncheon meeting at the Hotel Adelphia.
NEW YORK STATE SWIMMING MEET at Syracuse.
ALL-UNIVERSITY SYMPHONY ORCHESTRA. Strong Auditorium, 8:15 p.m.
22-23 QUILTING CLUB. Strong Auditorium, 8 p.m., admission charge.
31 UNIVERSITY PROTESTANT CHAPEL CHOIR, presentation of "Requiem" by Faure. Strong Auditorium, 8:15 p.m.

APRIL
2 ROCHESTER CLUB OF PHILADELPHIA, informal luncheon meeting at the Hotel Adelphia.
5 WOMEN'S ATHLETIC ASSOCIATION "Water Show." Alumni Pool, River Campus, admission charge.
6 WOMEN'S GLEE CLUB CONCERT with the Syracuse University Men's Glee Club as guests, Strong Auditorium.
11 MEN'S GLEE CLUB CONCERT at Newark, N. J.
21 ROCHESTER CLUB OF PHILADELPHIA, "At Home," Mr. and Mrs. William Engan, 16 Crescent Avenue, Woodbury, N. J.
22 MEN'S GLEE CLUB CONCERT, with Elmsford College Women's Chorus at Elmira College.
24 VARSITY GOLF, Alfred at Rochester.
25 VARSITY TENNIS, Alfred at Rochester.
26 VARSITY BASEBALL, St. Lawrence at Rochester.
27 VARSITY GOLF, Hamilton at Hamilton.
28 MEN'S GLEE CLUB CONCERT, sponsored by Burlington High School at Burlington, N. J.
29 VARSITY TENNIS, Cortland at Cortland.

MAY
1 VARSITY GOLF, Brockport at Rochester.
2 VARSITY TENNIS, Buffalo at Rochester.
3 VARSITY TRACK, Union at Union.
4 VARSITY BASEBALL, Union at Union.
3 VARSITY GOLF, Niagara at Rochester.
4 MEN'S GLEE CLUB CONCERT, sponsored by UR Alumni Club of Buffalo at Orchard Park High School.
5 VARSITY TENNIS, Niagara at Rochester.
6 VARSITY TRACK, Brockport at Brockport.
7 VARSITY BASEBALL, Niagara at Rochester.
8 VARSITY GOLF, Alfred at Alfred.
9 VARSITY TENNIS, Niagara at Niagara.
10 ROCHESTER CLUB OF PHILADELPHIA, informal luncheon meeting at the Hotel Adelphia.
11 VARSITY TRACK, Niagara at Rochester.
12 VARSITY BASEBALL, Hamilton at Rochester.
13 VARSITY GOLF, Union at Union.
14 VARSITY BASEBALL, Rensselaer at Rensselaer.
15 VARSITY TENNIS, Union at Union.
16 VARSITY BASEBALL, Union at Union.
17 ALL-UNIVERSITY SYMPHONY ORCHESTRA CONCERT with student soloists.
18 ROCHESTER CLUB OF PHILADELPHIA, elections and business meeting.
In the thirty-two years since Dr. William S. McCann came to the School of Medicine and Dentistry as Charles A. Dewey Professor of Medicine and Chairman of the Department, remarkable changes have taken place in the School and indeed in the entire field of medicine as an art and a science.

When he becomes Emeritus Professor on July 1 and relinquishes active direction of the department which he has built up from a staff of half a dozen young men and an annual budget of $28,000 to its present staff of over 200 and a budget of more than half a million, he will be succeeded by forty-three-year old Dr. Lawrence E. Young, ’39M, a member of the Medical Faculty since 1943 and the first graduate of the School to be appointed head of one of its departments. Dr. Young also will take Dr. McCann’s place as Physician in Chief of Strong Memorial Hospital.

Since 1947, Dr. Young has directed the Medical Center’s blood research program, for which the National Leukemia Foundation in 1954 presented its first main grant of $15,000 and has since made further grants. He was appointed an instructor in 1943, and in 1946, following active duty with the U.S. Navy in the U.S. Naval Hospital at Bethesda, Md., and the Research Division of the Bureau of Medicine and Surgery, Navy Department, returned to the Medical School as Henry H. Buswell Fellow in Medicine. He rose to Assistant Professor in 1948 and Associate Professor and Associate Physician in 1950.

Dr. McCann does not plan to retire but will continue teaching, seeing patients and carrying on his research, in which, he says, he “may take off in a new direction.” He is noted for his studies on the relationship between heart and lung diseases as well as diabetes and kidney diseases. He pioneered in research on silicosis and has made important contributions to the overcoming of that disease as a major industrial health problem.

In the three decades since he came as one of the enthusiastic group of young men chosen as department heads at the new School of Medicine and Dentistry, Dr. McCann has seen the infectious diseases such as pneumonia, tuberculosis, scarlet fever, diphtheria, and typhoid fever, reduced to a minimum through drugs such as the sulfas and antibiotics. In the 1920’s, these afflicted a large proportion of the acutely ill patients in the wards where he taught and worked. About 40 to 44 per cent of pneumonia patients died at an average age of fifty in the latter 1920’s, he recalls, where now about 10 to 12 per cent die and the average age has gone up to seventy, with alcoholics and malnourished people predominating.

There has been a marked change, too, he notes, in the attitudes of the medical profession. While the old-time doctor was likely to regard the only real maladies as those due to organic changes, “it has become increasingly obvious to the thoughtful student of medicine that we can no longer justify treating only a part of the patient. The particular disease from which a patient may suffer at any given moment is of far less importance to a physician that the kind of patient who has it.

In the field of internal medicine and psychiatry there is a meeting of minds on this problem and a growing tendency in each illness to study the sick person as a whole and to take into account all aspects of his environment in dealing with the illness.”

A pioneer in a close relationship between medicine and psychiatry, the School of Medicine and Dentistry has made...
psychiatry a part of the Department of Medicine for over twenty years.

Dr. McCann is nationally known as a medical educator, physician and researcher, and he has held top positions in national professional organizations and as consultant to state and federal agencies. President de Kiewiet says of him:

"Dr. McCann is a physician in the best tradition of the old school, yet a man who recognizes the inseparable dependence of medicine on modern science. He is a widely read man, and this combination of physician-scientist and man of erudition has made him the great personality he is, with a wide influence not only in medicine but in the community."

A graduate of Cornell University Medical School in 1915, Dr. McCann received the Cornell Medical Alumni Association's first annual award of distinction in 1949 "in recognition of his notable achievements in medical science and education and for his dynamic influence in the art and practice of medicine" and as "a perceptive observer of the changing order in medicine who in his community has fostered the development of more adequate and comprehensive service."

Dr. McCann's wife, Dr. Gertrude Guild Fisher McCann, who was his classmate at Cornell Medical College, died on November 15, 1956. She had been medical adviser to the Women's College since 1924. Their daughter, Dr. Elizabeth M. Adams, wife of Dr. Hugh R. Adams of Cooperstown, N.Y., and son, Dr. William P. McCann, also are graduates of Cornell Medical College. Dr. William S. McCann is the son of a physician, Dr. Charles F. McCann, and his maternal grandfather, Dr. William T. Sharp, was a regimental surgeon with General Sherman's army.

His accomplishments and humanity have won strong friends for the School of Medicine and Dentistry who have been inspired by his example to contribute millions of dollars to its support. The largest of these gifts came during the past year when the late Ralph Hochstetter, Buffalo financier, Dr. McCann's patient and friend for many years, bequeathed half of his large estate to the Medical Center. Previously, Mr. Hochstetter's sister, the late Mrs. Henry C. Buswell, and her husband, Dr. Buswell, also patients of Dr. McCann, left large bequests to the University for medical research.

In 1950, Dr. McCann's past and present students took part in an all-day symposium in his honor commemorating his twenty-fifth anniversary as Dewey Professor of Medicine, in which they reported on their research activities. A firm believer in pure science and the acquisition of knowledge for its own sake, he has always advocated giving medical students freedom in what they want to study as the best way to achieve discoveries.

This view is shared by Dr. Young, who says that one of the Medical School's unique features is the way in which the faculty inspires the medical students to undertake research. The School's record in this respect is "truly phenomenal," he says, and the main reason that it rates as one of the top four medical schools in the nation in the percentage of its graduates who go on to teaching and research careers.

"Dr. McCann has long advocated the type of teaching in which major emphasis is placed on the patient rather than on didactic instruction about diseases," Dr. Young further stated.

"All of us who have had the benefit of working with him have come to appreciate the wisdom of this approach to the teaching of medicine. One of our biggest tasks is to acquaint medical and postgraduate students with the vast amount of newer medical knowledge and all its complexities, and at the same time to continue a close working relationship with the patient. Working with small classes and a sizable faculty, we devote much of our teaching effort to dealing with the patient as a person, how he is reacting to his disease, and how we can help him to live with it."

Dr. Young is an honor graduate of Ohio Wesleyan University, and did his first research work during the summer of his junior year of college, when he worked at the Biological Laboratory, Cold Spring Harbor, Long Island, under Dr. [REUNION-COM plan now to join]
43-year-old Dr. Young is first graduate of the UR Medical School to be appointed chairman of one of its departments. He joined faculty in 1943, has been director of blood research program since 1947.

George W. Corner, first professor of anatomy at the University of Rochester, who interested him in taking his medical studies at Rochester. As a medical student, he worked with Dr. John R. Murlin, now Emeritus Professor of Physiology, on the absorption of insulin from the digestive tract in an effort to find a means by which it could be given by mouth instead of by injection.

Dr. Young is on the editorial board of the Journal of Clinical Investigation and has published some seventy articles in professional journals. He was a member of the National Research Council Committee on Blood for 1952-54, and is a member of the Hematology Study Section, U. S. Public Health Service, and the U. S. Pharmacopeia Panel on Hematology. He is a member of numerous national professional societies.

DE KIEWIET SPELLBINDS Washington Committee,” read a headline in the Rochester Democrat and Chronicle when the President appeared on invitation before the House Foreign Affairs Committee on November 28 to testify on foreign aid.

The news story from Washington reported that the committee set two hours beyond its lunch time for a total of three hours in plying President de Kiewiet with questions on his views. It quoted him as saying that foreign aid should be used more intensively in more places, and immediately in the Middle East; that "a more deliberate policy of cooperation with India" would make that determined neutral an Asian bulwark against Communism, and that anti-colonialism is not necessarily the best policy for anti-colonial America at all times and in all places.

The legislators clustered around him for another ten minutes when the closed-door hearing broke up, and James P. Richards, South Carolina Democrat and committee chairman, used such words as "wonderful" in describing President de Kiewiet's testimony. The committee, its chairman said, was "very much impressed" with his knowledge of international problems involving foreign aid.

One of the primary characteristics of America is "the need and desire" of its people to become identified with helping others in under-developed countries, the dispatch quoted him as saying. On the matter of anti-colonialism, he said that "we shouldn't assume that we would make the best headway by being anti-colonial everywhere in the world all the time";
that anti-colonialism is really a secondary issue, and that the real issue is more viable, prosperous states. The question, he declared, is how the aid is used, and first consideration should be given to aid for the entire trouble area of the Middle East.

He advocated a more deliberate policy of cooperation with India, which he termed the most promising of the democratic states in that area. "There is a vacuum there which we cannot fill, nor influence from a distance," he told the committee. "Therefore we need a society like India with which we could work."

**Brookhaven Board Picks UR Aide as Chairman**

LaRoy B. Thompson, the University's Director of Research Administration, has been elected chairman of the Board of Trustees of Brookhaven National Laboratory, which is operated by Associated Universities, Inc., under contract with the U. S. Atomic Energy Commission.

Rochester is one of the nine universities in the corporation formed in 1947 to contract with the AEC for the establishment and operation of a national nuclear research facility, now known as Brookhaven National Laboratory. The other members are Harvard, Yale, Princeton, Massachusetts Institute of Technology, Cornell, Columbia, University of Pennsylvania and Johns Hopkins University.

As a member of Associated Universities, Rochester is taking an important role in the establishment of a National Radio Observatory at Green Bank, W. Va., to be equipped with one of the world's largest and best radio telescopes. Brookhaven has signed a contract with the National Science Foundation to establish the observatory. The project is too big for any one university or institution to undertake, and it will be built by the NSF. Congress has appropriated about $4,000,000 toward the purchase of land and the design and construction of the telescope and supplementary buildings and laboratories.

**Exchange Professorship with England Extended**

By action of the boards of the R. T. French Company of Rochester and its associate in England, Reckitt and Colman, Ltd., the exchange of professorships between the University of Rochester and the University of Hull, England, will be continued for another five years.

The program, begun in 1953 on a year-to-year basis, is financed by the two companies. In order to enable the two universities to make the most of the exchange, the boards of French and Reckitt and Colman have decided that the plan should be placed on a more permanent basis and the five-year term was thus approved. Visits from Hull to Rochester and Rochester to Hull will take place in alternate years.

President de Kiewiet has been requested by the University of Hull to nominate a member of the Rochester faculty to join the staff of the British institution for the 1957-58 academic year. This year Prof. Richard M. Hoggart of Hull is visiting professor of English at the River Campus. His special field is modern English literature.

Prof. Wilbur D. Dunkel, Burrows Professor of English, spent last year at the University of Hull. Previously Prof. A. Geoffrey Dickens, British historian, and Dr. Herbert King, professor of geography at Hull, had come to Rochester as visiting professors.

The project, an unusual undertaking between industrial firms and universities, has provided significant educational benefits to Rochester students through classroom lectures and informal meetings with students and faculty, and has helped promote better understanding between the two countries. In the opinion of President de Kiewiet, who expressed the University's appreciation of the generous action of the two sponsoring companies. Dr. Brynmor Jones, vice chancellor of Hull University, in a letter to the Reckitt and Colman board, expressed the "delight of my colleagues at the news that the exchange with the University of Rochester is to be continued for another five years."

**Dr. Hanhardt Lectures, Studies in Germany**

Dr. Arthur M. Hanhardt, Professor of German who played a major part in the establishment of the University's famed Foreign Language Laboratory, is spending the second 1956-57 semester in Germany where, among other pursuits, he will work in the language laboratory of the Institute of American Studies of the University of Frankfort.

He also is lecturing on "American Words and Institutions" at German universities, and doing research on contemporary German language usage in the various German-speaking areas of central Europe, and studying German life and society in connection with his editorship of the Jugendpost, a monthly German language periodical for students of German which has a wide circulation in high schools and colleges in this country and abroad.

Other Faculty notes: Dr. S. D. Shirley Spragg, Professor of Psychology, has been named to New York State's first Board of Examiners for Psychologists appointed by the State Board of Regents. Dr. Joseph B. Gittler, Professor of Sociology, has been named to a regional selection committee of the National Woodrow Fellowship. The program, sponsored by the Association of American Universities, of which President de Kiewiet is the new president, aids "young scholars of marked promise."

Mary Boat, '56, is currently a Wilson Fellow at Brown University. John Russell, Director of the University's libraries, is the new president of the College and University Section of the New York Library Association. Margaret Butterfield, '26, is a director of the section. Dr. George Packer Berry, formerly Professor of Bacteriology at the UR School of Medicine and Dentistry, now Dean of Harvard Medical School, has been elected a charter trustee of Princeton University, from which he was graduated in 1921. He has been chairman of the advisory council to the Princeton biology department since 1941, and is a member of the Graduate Council, and also is a former president of the Association of American Medical Colleges.
The addition of a four-year undergraduate course in electrical engineering, beginning in September, to the present strong programs in mechanical and chemical engineering, will strengthen the teaching and research work of the entire Division of Engineering, and also the research of other science departments such as physics, optics, medicine, and psychology, which are increasingly dependent on electrical engineers.

The plan has been under consideration for several years, and was approved last fall by Faculty and Trustees after intensive study since last January by a special faculty committee, which last June recommended the establishment of the new course. The Faculty as a whole endorsed the plan in principle and the specific four-year program of courses was approved by the Faculty and Trustees in November.

Students entering the program also will have the option of a five-year course in which they may obtain both a B.S. degree in electrical engineering and an A.B. degree with a major in a liberal arts field.

The electrical engineering curriculum provides for four years of physics, three of mathematics, the required work in electrical engineering and courses in the humanities and social studies, as well as the year of freshman English required of all students in the College of Arts and Science. Today's employers, according to Dr. Lewis D. Conta, '34, '35G, Chairman of the Engineering Division, want engineers who not only are well trained in their professional field but have a strong background of general education as well that will help them to understand the problems of management and to evaluate properly the social and economic effects of their work.

Automatic controls and electrical measuring techniques are being used increasingly and have added to the difficulty of operating research programs in engineering or physical science without the help of electrical engineers, he explains. More and more use is being made of electronic equipment and techniques in the medical field, for example, and in the Psychology Department's human engineering research, electronics equipment is used extensively for measurements and controls.

Major factors in the decision to introduce the electrical engineering course, in addition to its educational and research advantages, were the growing prospect for higher enrollments in engineering at Rochester over the next decade, and the strong interest of local industries in the establishment of such a curriculum.

The total undergraduate enrollment in the College this year is about 1,760, and by about 1965 it is expected to reach 2,500, with a corresponding rise in the number of engineering students. Of the present 1,100 men students in the College, more than one-fourth are majoring in chemical or mechanical engineering.

As the program progresses, the electrical engineering faculty will be increased, and a committee of engineers in education and industry is assisting the University in planning the development of the project and in obtaining additional staff. Basic electrical engineering courses are now given as part of the undergraduate training for mechanical engineers under Dr. Charles H. Dawson, Associate Professor of Electrical Engineering, an instructor, and two assistants.

Last fall, a new master's degree program for practicing electrical engineers was introduced by the Graduate School, with courses being given in University School evening classes in which twenty-five engineers from Rochester industries are working part-time toward their advanced degrees. This program is in addition to the graduate courses given for many years in University School in mechanical and chemical engineering.

An electrical engineering course was offered in 1946 when there was a large bulge of veterans studying under the GI Bill. The increased enrollment proved to be temporary, however, and as the number of applicants for the course dropped sharply with dwindling veteran registration, the expense of maintaining the four-year electrical engineering program for a small number of students was found to be too great, and it was discontinued in 1950, when those majoring in the subject had had the opportunity to complete their full four years of study.

The current college enrollment increase is of a permanent nature, however, Dr. Conta says, and will continue at a still greater rate for many years to come as the high tide of "war babies" now coming up through the high schools hits the nation's colleges.

The University graduated its first engineers in 1914, when three received their degrees. Since then hundreds of its engineering graduates have won key positions in industry in Rochester and throughout the nation. It may be recalled that an article in Mechanical Engineering magazine based on a study of college graduates in the 1954 Who's Who in Engineering named the University of Rochester third in the nation in the percentage of its graduates listed in that publication.
University Costs Reach Record $17,886,280

An increase of $4,427,006 during the 1955-56 fiscal year raised the University's endowment assets to a total of $71,120,783. During the same period, its annual operating and research costs rose to a new high of $17,886,280, which is $2,633,672 more than for the preceding year.

Although the University incurred net overall deficits in excess of the annual income from its unrestricted funds in 1953-54 and 1954-55, it showed excess income from its general funds in the 1955-56 year ended last June 30 of $126,807, permitting the addition of that sum to unrestricted income purposes.

This favorable result was made possible by generous contributions from alumni, alumnae, corporations and friends of the University.

These are among the significant statistics contained in the annual report of Raymond L. Thompson, '17, Senior Vice President and Treasurer. Here are some others:

While there was "a very satisfactory increase" in market value of the University's investments, accompanied by a moderate gain in investment income, the added revenue from investments has not kept pace with the rising trend of operating expenses of the University as a whole."

(Annual costs have risen by nearly $5,000,000 in the past five years and in the 1955-56 fiscal year were nearly treble what they were ten years ago.)

The College of Arts and Science operated at a deficit of $419,410 last year, and 45 per cent of the total income from the University's unrestricted funds was used to extinguish the deficit. Mr. Thompson's report, as it has for the past four years, again emphasizes the College's need for additional endowment funds, which at present amount to $15,397,715.

He also calls attention to the fact that the Eastman School of Music, which was liberally endowed by George Eastman when it was founded in 1922, "has been faced with increased operating costs over the ensuing years, and now these annual expenditures require all available income to balance the budget."

The operating result for each of the endowed schools of the University is determined, the report explains, after allocating to each its current income from all sources and the income from its own endowment funds for the fiscal year. The income from the University's restricted funds is then appropriated as far as possible to meet deficits in the individual schools.

"Additional endowment funds for the College of Arts and Science," Mr. Thompson stated, "would reduce the necessity of appropriating such a large portion of unrestricted endowment income to offset the annual deficit in that division."

The University's endowment funds are allocated among its various major divisions as follows: College of Arts and Science, $15,397,715; Eastman School of Music, $10,982,338; School of Medicine and Dentistry, $22,101,174; General Endowment (unrestricted), $14,900,151; Strong Memorial Hospital, $184,447; Memorial Art Gallery, $677,763. Endowment reserve is listed at $5,603,006, and reserve for endowment funds held in trust, deferred credit and advances payable to other funds, and the Lewis P. Ross Fund of $858,167 make up the rest of the total endowment assets of $71,120,783.

In addition to the record $17,886,280 for annual operating and research costs, the University spent $2,596,185 to complete the construction of buildings required by the merger of the Men's and Women's Colleges last year at the River Campus. The merger, Mr. Thompson reported, "has resulted in the reduction of plant operating costs, the elimination of expenditures for the duplication of equipment, and the saving of instructional time of both faculty and students."

Payments on pledges made to the 1953 University Development campaign up to last June 30 amounted to $5,125,739, and the purpose of the campaign—to provide funds for the merger of the two colleges—has now been accomplished, he said.

Of the entire operating expense, 63 per cent, or $11,240,466, consisted of salaries and wages of the University's 3,470 full-time and part-time employees, including faculty members and the many non-teaching categories, and of contributions to the University's employee retirement, life insurance and health benefits.

The revised and expanded employee benefit program that went into effect last July 1, termed by Mr. Thompson "at
(Please turn to page 23)
Eastman Becomes a Recording Center of American Music

On the Eastman Theatre stage, the Eastman-Rochester Symphony Orchestra, its members wearing sports shirts and other casual attire, was playing "Selections from McGuffey's Reader" by Burrill Phillips, 32E, '33GE. Dr. Howard Hanson, Director of the Eastman School of Music, was on the podium, his plaid wool sports shirt hanging outside his trousers. Overhead, a network of microphones picked up the music.

In the Eastman School garage across Swan Street, which had been closed to traffic, Robert Fine, Mercury Records' sound engineering genius, and William Decker, mechanic, were busy with equipment in a special sound recording truck brought to Rochester for the occasion, recording the orchestra's performance on magnetic tape. Backstage, in a second-floor dressing room converted temporarily into an audition booth, a little group of experts listened intently to the recording over a special hi-fi speaker.

Dr. Hanson stopped the music. "I'd like almost a Wagner-type sound here," he said. He lifted his baton, and the orchestra resumed playing. When it paused for some...
Frederick Fennell, conductor of Eastman-Rochester "Pops" Orchestra, consults with Robert Fine, sound engineer, on moving brass section to obtain better balance for recording of music by Leroy Anderson.

Eastman School Recordings

comments by the director, Fine’s voice came over the speaker. "Your beginning is very nice," he said cheerfully.

When the number was concluded, there was a concerted rush toward the upstairs room as the conductor and many of the players hurried eagerly to hear the play-back. Dr. Hanson sat down at a table, a towel draped over his perspiring shoulders, with Miss Wilma Cozart, Mercury’s attractive vice president in charge of classical recordings, and Harold Lawrence, music director for the classical division. Behind them sat the composer, now on the faculty of the Department of Music, University of Illinois. In the doorway clustered members of the orchestra.

As Fine played back the tape for them from the garage, they listened with rapt attention, making occasional laconic comments. Dr. Hanson, his shoulders hunched, his hand moving as though he wielded a baton, followed each measure with intense concentration. When it was finished, he grinned.

"I think we’ve got it!" he said with satisfaction.

The players, Miss Cozart, Lawrence, and Phillips beamed their pleasure over the results.

"This is one of the best orchestras anywhere." Miss Cozart remarked a little later. "It’s as good as any I’ve heard. You have some wonderful players."

The players are members of the Eastman School faculty, the Rochester Civic Orchestra, and advanced music students. The occasion was a recording session for Mercury Records, which has made over twenty Living Presence high fidelity classics with the Eastman-Rochester Orchestra and the unique Eastman Symphonic Wind Ensemble, the latter organized in 1951 and conducted by Frederick Fennell, ’37E, ’39GE, of the Eastman faculty. No other music school has commercial recording affiliations, and the Eastman School is rapidly becoming a major recording center.

The Eastman School of Music recording program was begun in 1939 with a small grant from the Board of Managers in support of Dr. Hanson’s far-seeing conviction that the preservation of American music on records would greatly enhance its acceptance and further its development. The records are not made at random, but are a further extension of his more than thirty years of activity on behalf of American composition, performance and publication, and of recognition of our composers in their lifetimes.

The fund was created as a revolving fund; it returned the initial investment in Dr. Hanson’s early recordings for RCA Victor, which recorded twenty-five titles on 78’s between 1939 and 1952. In the 1940’s, Columbia also made several recordings under Dr. Hanson’s direction, and since 1952 twenty-two recordings have been made under the Mercury label. This program is closely allied to the Eastman School’s program of publications of American music, which at present number forty scores of major works, all of which were played at the School’s annual Festival of American Music, and many of which Dr. Hanson also has recorded.

Dr. Hanson’s plans call for a three-phase recording program for the Eastman-Rochester Orchestra. The first, the best of American composers, is well along; the second, “pops,” is just beginning, and the third will be the field of chamber orchestra literature.

The enthusiastic reception which these records are receiving may be noted in the review by the distinguished critic, Alfred Frankenstein, in the January issue of High Fidelity: "With each new record it becomes more and more apparent that Howard Hanson is one of the truly great conductors of the present day. Thanks to him, and to one of the world’s ablest technical staffs, Mercury is producing the most consistently distinguished series of modern American disks in existence."

The newest albums, made during a four-day session October 25-28 and scheduled for release early in 1957, include these listenable and humorous selections, conducted by Dr. Hanson: "Adventures in a Perambulator" by John Alden Carpenter, "Folk Suite" by Lyndol Mitchell, "Savannah River Holiday" by Ron Nelson, "Mexican Rhapsody" by Robert McBride, "Joe Clark Steps Out" by Charles Vardell, and "Selections from McGuffey’s Reader" by Burrill Phillips. Five of the works were published by the Eastman School following their performance at American Music Festivals, and four are by Eastman School alumni—Nelson, ’52E and ’53GE, Mitchell, ’51GE, now on the Eastman School faculty. Vardell, who received his Master of Music degree at the School in 1938, his Ph.D. degree in 1940, has completed his work for his Doctor
of Musical Arts degree there, and is now dean of the Conservatory of Music at Flora Maclonald College; and Phillips.


This marked Fennell's debut as an orchestra conductor on records, and was the first of a series of "pop" orchestra LP records he will do for Mercury. He has, however, conducted many recordings of the Eastman Wind Ensemble since 1951.

The immediate success of the Ensemble's first recording, American Concert Band Masterpieces, in May of 1951, led to the recording in the following fall of an album of sixteen marches by John Philip Sousa and others, the two albums representing the wide gamut of band music from the most basic marches to the most esoteric art-form music. They established the group as a major recording ensemble both in sales and in service to music lovers and educators; the works had never before been recorded, and the albums opened the floodgates for the recording industry, which quickly began to follow Fennell's lead.

In his third recording, "La Fiesta Mexicana" by H. Owen Reed, '39GE, he returned to the full length contemporary wind band music by American composers, no score of which had existed before 1952. For the fourth recording, British Band Classics, Dr. Hanson permitted Fennell to depart from his original program to do four pieces by two of England's most noted twentieth century composers, Gustav Holst and Vaughan Williams. These four works are cornerstones of all contemporary band literature.

Next came the album Marching Along, followed by Ruffles and Flourishes, consisting of music for field trumpets and drums, The Spirit of '76, music for fifes and drums, and Marches for Twirling, all LP's under the Mercury Classics Living Presence high fidelity label. These, together with the other recordings of American marches, were planned as a contribution to musical Americana, covering the whole field from colonial times to the present. None had been previously recorded by anyone else. Income from the sale of the records, which have enjoyed great success here and abroad, goes back into the revolving fund for the recording program. They were included on the list of the 100 best of 1956 in the New York Herald Tribune and other publications.

These and Dr. Hanson's records with the Eastman-Rochester Orchestra for Mercury, together with the extensive radio and TV broadcasts of the Eastman School, both network and (Please turn to next page)
local, all fully professional performances, are contributing enormously to the School's prestige in many parts of the world, as well as throughout America.

Recordings conducted by Dr. Hanson for Mercury include the Hively "Tres Himnos," MacDowell's Second ("Indian") Suite, Piston's Symphony No. 3, Sessions' "The Black Maskers," his own Songs from "Drum Taps" and Symphonies Nos. 4 and 5 and several other short pieces, Griffes' "The Pleasure Dome of Kubla Khan" Carter's "Minotaur Suite," Chadwick's Symphonic Sketches, Cowell Symphony No. 4, and the Gould Latin-American Symphonette.

Swan Street is closed to traffic during recording sessions. Special sound truck is in garage of the Eastman School annex at the right.

Fine, engineer at Mercury, and William Decker, a mechanic, operate magnetic tape equipment in a specially constructed sound recording truck.

Photos by Louis Ouzer of Louen Studios

Ears cocked to catch every nuance of the recording of their performance, orchestra players crowd around entrance to audition room between playing sessions to pass critical judgment on their efforts.
Medical Project Helps Prepare U.S. for Atomic Age

By Harry Schmeck

Harvard Nieman Fellow, 1954

ON THE DOOR is a sign bearing a cloverleaf symbol and the words: "Danger, Radiation!"

Beyond the door is a whole new world.

One of the outposts of that world is the Atomic Energy Project of the University of Rochester School of Medicine and Dentistry. In its laboratories, behind the cloverleaf signs, scientists are working out the problem of America's future in the Atomic Age. There are practical problems such as protection against flash burns from atomic bomb explosions; methods of treating people who have been exposed to too much radiation; establishment of safety standards for using the atom in industry. There are also pure research studies that touch on almost every field in medical and biological science.

It is impossible to say which of the many projects is the most important. Any of them could lead to discoveries of great significance. All of them are adding to mankind's knowledge of a vast field which already is helping shape the history of our time.

The UR project is one of the biggest medical research facilities of the U.S. Atomic Energy Commission. It has a research and development staff of 250 and an annual budget of over one and a half million dollars. Many of its scientists are among the nation's foremost authorities in their fields.

The list of the Project's research programs fills about four pages in the University's twenty-eight page directory of research. Items in the list cover a broad range of the medical and health problems involved in the development and use of atomic energy. The AEP's research also includes studies that bear on other health problems in fields as diverse as cancer, diabetes and poisoning by heavy metals.

Atomic radiation, by its very nature, has a strong bearing on cancer research. It is one of the many phenomena which can cause cancer in man and animals. It is also one of medicine's staunchest weapons against that group of serious diseases. Furthermore, radioactive isotopes of common elements—used to "tag" organic compounds—are among the most valuable tools available for studying both the normal and the abnormal processes of life.

It is appropriate, therefore, that several of the Atomic Energy Project's research programs are related to cancer, its causes, diagnosis and treatment.

One of the most dramatic of these is an attempt to adapt products made by living bodies to fight cancers inaccessible to present methods of surgery or radiation. The research scientists are trying to develop "tissue-specific" antibodies which will seek out cancer cells in a patient's body and concentrate there. If these antibodies carry a burden of radioactivity this too will concentrate in the cancer and help destroy it. Such antibodies would be almost ideal weapons against malignancy.

Radioactive iodine comes close to this ideal for an occasional cancer of the thyroid because the gland normally attracts iodine powerfully. When a patient is given radioactive iodine it tends to concentrate in the thyroid where the radioactivity helps destroy the cancer cells. Unfortunately cancer often impairs the thyroid's normal ability to attract iodine.

UR scientists, under the direction of Dr. William F. Bale, Professor of Radiation Biology, are trying to "train" antibodies to do this kind of job more effectively than any agent available today.

The body will manufacture antibodies to work against almost any foreign protein substance which gets into the blood stream, whether this be a germ, a blood cell of the wrong type, or almost anything else. Once manufactured in the body the antibodies seek out the invader and attach themselves to it as the first step in defense against attack. It is this ability to seek out specific types of material and cling to it that Dr. Bale and his associates hope to adapt for use against cancer.

Ideally, for example, one might expect to inject finely ground cancer tissue into a rabbit's blood stream and later "harvest" from the blood antibodies "specific" for that particular type of cell and to no others. Then, if these antibodies were injected into a rat which suffered from the specific type of cancer involved, they would seek out the malignancy and attach themselves to it.

This was what Dr. Bale and his co-workers tried to do in their early experiments, but it was only partially successful.

Dr. Henry A. Blair (center) is Atomic Energy Project Director. At right is Dr. Harold C. Hodge, Chief of Pharmacology and Toxicology Division, and left, Dr. William F. Bale, Chief of Radiation Biology.
Some of the antibodies did seek out the rat's tumor, but some also went to other organs. The antibodies were not specific enough.

Later Dr. Balf and his associates devised ways of "harvesting" antibodies that were more specific, and methods of concentrating the most useful portions of their harvest. A scientific paper on the work was one of the UR Atomic Energy Project's twelve contributions to the huge 1955 international Geneva Conference on the peaceful uses of atomic energy. The work on "tissue-specific" antibodies is still in progress here. So far it has not produced anything directly useful in treating human patients for cancer, but the research has opened up far-reaching possibilities.

The studies here may lead, someday, to anti-cancer agents "tailor-made" for the specific type of case under treatment. Also attacking the huge problem of cancer, though in a different sector, is research directed by Dr. Leon L. Miller, Associate Professor of Radiation Biology and Biochemistry. He and his associates are concentrating mostly on study of the liver—the body's main "biochemical factory" and marshaling area.

All living animal tissue is built from combinations of the various amino acids. They are often called the "building blocks" of protein. It is the liver that determines which of these "building blocks" the tissues may have and in what quantity they will be made available.

The liver's role in this respect has a strong bearing on cancer study because cancer is a matter of "runaway" growth. Cancer cells seem to forget "the rules" by which the body operates, and reproduce in an undisciplined stampede. To do this they must have excessive amounts of amino acids.

Using rats as their experimental animals, the research workers in Dr. Miller's section have kept livers "alive" outside the body and, conversely, have kept the rats alive without their livers. The purpose, in each case, is to "cross-examine" the liver on its role in the normal and cancer-afflicted body.

One example of this type of research was an attempt to find out what functional differences there might be between normal livers and livers that were actually in the process of becoming cancerous.

To find the answer researchers took both normal and pre-cancerous livers from rats. The organs were kept "alive" for six to eight hours apiece by pumping rat blood through their blood vessels in a specially constructed apparatus. The scientists could add radioactively "tagged" amino acids and other compounds to the blood and see how the liver used them. The experiments produced several striking results.

The work gave evidence, among other things, that a pre-cancerous liver is already prepared to provide for the growth of the cancer before any structural signs of cancer develop. It showed, further, that the chemical sequence by which the liver breaks down excess amino acids does not go exactly the way most experts had previously thought.

Other work in the same section of the AEP has found strong evidence for the scientifically "heretical" proposition that the body can change fat to glucose (sugar) as well as change glucose to fat. Previously it had been thought that the body could do the latter, but not the former.

These investigations, like much other basic research, are not aimed primarily at finding a cure for any specific disease. The main purpose is to learn more about the myriad intricate processes by which living things do their amazing job of living, growing and reproducing.

Another of the many available examples of this search for basic information at the AEP is in the study of white blood cells being done by Dr. Mary lou Ingram, Assistant Professor of Radiation Biology. She is also project physician for the AEP.

The study of white blood cells is important for a number of fundamental reasons. The cells are vital to the body's defenses against disease. Some human illnesses have a marked effect on the white blood cells. The cells, and the bone marrow where they are formed, are highly sensitive to atomic radiation. Some drugs seem to depress the body's production of white blood cells. In some diseases, such as leukemia, the body apparently makes too many of them and many of those made are abnormal.

This brings up many questions: Would it help a leukemia patient if some of his excess white cells were removed? Would a transfusion of white cells help a victim of excessive radiation? It is hard to answer these questions without first learning a great deal about the cells and the use the body makes of them.

One of the obvious ways of learning the role these cells play in the body is to remove them from an otherwise healthy animal and then see how the animal gets along without them.

To do this is the first aim of Dr. Ingram's research. It is much more difficult than it sounds. The UR scientist has developed a method by which a research team can remove a dog's blood, filter it to take out virtually all of the white cells in it and put it back in the dog. The process is continuous, of course, so that the dog never suffers from a shortage of blood during the experiment. It is also so rapid that the animal's total volume of blood can be filtered of 90 per cent of its white cells in an hour.

Because of the experiment's requirements, the dogs must be kept not only healthy, but comfortable throughout the complex procedure. The process is much harder work for the scientists than it is for the animals.

In attacking problem of cancer, Dr. Miller concentrates on studies of the liver, body's main "biochemical factory." Apparatus above is used in experiments to find how liver manufactures complex proteins from amino acids. Rat liver is perfused with rat blood containing amino acids that have been tagged with radioactive carbon.
The UR experiments so far have demonstrated that a healthy dog can "mobilize" his white blood cells in the blood stream or "hide" them—apparently in the body tissues—so efficiently as to nullify most of the experimental efforts.

It seems to be true that the white cells in the blood are there only in transit to the tissues where they play their vital roles in the body and where they are "stored." But the animal can call them forth into the blood or "hide" them in a matter of minutes.

Essentially the UR work is concentrating now on one of the first basic questions: what happens when a shortage of white cells develops in a body and how quickly can the body produce new ones to overcome the shortage?

The answer hasn't yet been found because, so far, the dog has proved able to manipulate his white cells faster than any scientist can do it for him.

The research at the Atomic Energy Project runs the gamut from the ultra-microscopic to consideration of whole human populations. In the latter category is a study done by the AEP's director, Dr. Henry A. Blair, on the life-shortening effects of radiation. Basing his survey on the results of experiments with animals, Dr. Blair came to the conclusion that an industrial worker who received the maximum permissible amount of radiation weekly during a twenty-year career would have his life "shortened" by a statistical 2½ per cent. This would be difficult to detect and probably not significant anyway, considering all the other hazards encountered in modern life, he concluded.

A project combining the ultra-microscopic with the consideration of whole populations was one done by Dr. John B. Hursh who surveyed the amount of radium most Americans drink during a lifetime with their normal water supply. Dr. Hursh, Associate Professor of Radiation Biology and Assistant Chief of the Project's Radiology and Biophysics Division, wanted to know whether or not Americans were drinking enough radium with their water to account for some of the unexplained cases of bone cancer that sometimes occur.

Radium, like calcium and strontium, tends to collect in the bones when it gets in the body. Since radium is radioactive and maintains its radioactivity for a long time, too much of it can produce cancer in the bones.

Dr. Hursh did painstaking measurements of the traces of radium in water from forty-one different cities including Rochester. Though the information he obtained was both interesting and important to science, the answer to his original question was a flat no. There was not enough radium in any water supply to give anybody's skeleton much of a glow. For Rochester, for instance, he found that it would take all of the fourteen and a half billion gallons of water the city uses yearly from its Hemlock Lake system to give forty dollars worth of radium—at the current price of about $20,000 per gram.

Dr. William F. Neuman, Associate Professor of Pharmacology and of Biochemistry, is among the nation's outstanding authorities on the composition and development of bone and on the effects of radioactive materials which tend to localize in bone. Knowledge of the fact that strontium and radium are deposited in bone in an identical manner came from his laboratory. Since radioactive strontium-90 is one of the most important and dangerous ingredients in fall-out from atomic weapons, this discovery has proved valuable in estimating the hazards from atomic war and A-weapons testing.

Dr. Neuman's research brought him, in 1955, the coveted Eli Lilly award of the American Chemical Society. He was part of the official U. S. delegation to the 1955 Geneva Conference. Drs. Bale and George W. Casarett also attended the international gathering.

Among the nation's leading researchers on cell physiology is Dr. Aser Rothstein, Associate Professor of Pharmacology. He is studying the life processes of yeast cells to gain further understanding of the role played by the outer walls of individual living cells. People used to think of individual cells as little bags containing many chemicals, but the truth is far more complex than that. Each cell, whether it be in human skin or in a yeast colony, has a complex interior structure. Its outer walls are complex too. They are not just membranes, but functioning parts of the cell.

The work on the importance of cell surfaces started here in World War II as a project responsible for answering many of the unanswered questions about uranium poisoning. The
research showed that uranium's toxic effects stemmed from the fact that its molecules tended to combine with particular chemical groups on the surface of certain cells. This was harmful, later research showed, because the uranium units were actually blocking some sort of cellular transport system for sugars.

It became obvious that the cell wall was a complicated area in which some of the chemical "machinery" of the cell did its work—machinery which had to do with the breakdown of sugars and with the "pumping" of needed materials into or out of the cell.

Just exactly what this "pumping system" is has yet to be discovered, but it is apparently indispensable to the cell. Dr. Rothstein's recent work has been done mostly on yeast colonies. One reason for this is that the yeast cells live semi-autonomous lives. They must face a changeable environment and therefore may be subjected to a wider variety of conditions than is possible with more complex and integrated forms of life.

The projects discussed above are only a few among many in progress or recently completed at the AEP. The Project is divided into five operating divisions.

Radiology and Biophysics Division is headed by Dr. Bale. Pharmacology and Toxicology, which carries on a tremendous amount of research of interest to science, industry and the government, is headed by Dr. Harold C. Hodge. An internationally known figure in this field, Dr. Hodge has served as a consultant to many top national and international bodies interested in this phase of radiation study.

The Medical Division, dealing with a wide variety of problems in the medical and health aspects of atomic energy use, is headed by Dr. Joe W. Howland who also directs the AEP's big isotope center. This unit supplies radioactive isotopes for hospitals all over Western New York and trains personnel to handle these valuable but tricky offspring of the Atomic Age.

Divisions on miscellaneous research and education and on special programs are both directed by Dr. Blair who is overall director of the Project itself.

It is in the "miscellaneous" category that one of the most nearly unique of the AEP projects is found. This is the flash burn research project headed by Dr. J. Raymond Hinshaw under the overall direction of Dr. Herman E. Pearse, Professor of Surgery. This unit studies the biological effects of the burns to be expected from the enormous blast of heat and light that comes from nuclear explosions. The burn unit is collecting data on the basic nature of burns, protective measures against flash burns and even methods of measuring the severity of burns. The unit has probably done more research on flash burns than has any other research group in the nation.

Flash burn research unit studies biological effects of burns from tremendous blast of heat and light produced by nuclear explosions. In "man from Mars" helmet, the researcher is preparing a magnesium flash as a source of heat. Domestic pigs are used in experiments.

Among the Project's most complex and important laboratories is one devoted exclusively to the study of radioactive dust and its effects on living animals which inhale the dust. It is one of the few laboratories in the nation set up for the express purpose of doing this, according to Dr. J. Newell Stannard, scientist in charge of the unit. It is a key part in one of the Project's biggest programs—research and study of health and safety factors in the use of atomic energy.

The materials with which this laboratory deals are, paradoxically, among the safest and yet most dangerous chemicals on earth. Typical is polonium, an element so toxic that a chunk the size of an aspirin tablet could poison the whole human race if it could be divided up finely enough and administered to each of the two and a half billion of us. Yet polonium is so safe outside the human body that a sheet of plywood is sufficient shielding against it. The material is radioactive, but its emissions have such a short range that they normally won't penetrate a heavy piece of paper.

If a piece of the substance gets inside the body, however, all its radioactive energy hits and damages the tissue immediately around it. The UR laboratory usually handles only very small amounts of radioactive materials, behind the complex safety equipment which keeps it all under complete control. By most standards the scientists could handle ten times as much radioactivity as they actually do, but the safety of the current safety limits themselves is among the things being tested in the UR laboratory.

That same proposition is true of much of the Atomic Energy Project's work. It is one of those research centers which are helping construct and place the signposts needed to guide humanity wisely and safely into the new world of atomic energy.
**Books in review**

**TRIAL BALANCE**  
A new book by  
Alan Valentine  
President of the University, 1935-50  
Published by Pantheon Books, Inc., reviewed by John R. Slater, Professor Emeritus of English.

Readers of "The Age of Conformity," in which Alan Valentine's criticism of certain aspects of American life was somewhat militant, will find a mellower and more genial spirit in "Trial Balance." As the title indicates, the author tries to find out whether the debits and credits of our culture are even approximately equal. His mood is exploratory, his style lively and urbane. Because of its candid approach to education and politics, its wisdom and tolerance born of long experience, it deserves wide attention and careful reading. It is an important book of the year.

Following the examples of Henry Adams, Henry James, and George Santayana, the author writes in the third person. There is an "Angus," viewed with some detachment and at times with mild amusement. Angus is a Long Island boy of Quaker ancestry, educated in a Quaker academy, at Swarthmore College, and at Oxford. He blames nothing on his parents or teachers, which is unusual in these days. After winning a Rhodes scholarship and an honors degree at Oxford, with athletic triumphs and many long vacation rambles throughout western Europe, Angus becomes a dean at Swarthmore, Master of Pierson College at Yale, and finally for fifteen memorable years President of the University of Rochester.

In the chapter on "The Academic Mind," to which some Rochester readers may turn first with curiosity, we are informed that "Angus never regretted his twenty-two years of academic life. Higher education should be the most distinctive and rewarding of vocations, and at times it seemed so." The chapter contains no unfavorable Rochester impressions that are not equally characteristic.

In the annual poll of The Saturday Review, Alan Valentine's "Trial Balance" was nominated as one of the outstanding books of the year in the general field. Dr. Dexter Perkins, Professor Emeritus of History, was one of the eleven specialists who were asked to name the books they considered the best in this field.

As for Angus's brief postgraduate adventures in Washington politics, his encounters with Michael DiSalle and State Department bureaucrats, they show why many scholars avoid public service when they can. In time of war civilians in government cannot expect peace; in time of peace they seldom find superior intelligence. For an earlier year Angus had helped economic recovery in the Netherlands under relatively favorable conditions, yet he could not avert by timely warnings policy blunders in Indonesia of other universities. Whatever tendencies were found here toward excessive specialization, over emphasis on athletics, and lack of broad humanistic culture were part of American life in general. Their causes were many, their cures hard to discover.

In the chapter on "Men of Science" we have interesting examples of what happens to an academic executive educated chiefly in the humanities when he is charged with important duties among medical men, physicists, chemists, and problems of secret government research. It was another kind of adult education, which took much time away from undergraduate complications. Yet what he learned at the School of Medicine and Dentistry and the Eastman School of Music, and on national committees for educational research, all contributed to his competence in dealing with men.

It would be a mistake to regard this brilliant book as a slightly disguised intellectual autobiography. It is far from that. With wide knowledge of American and European culture based on study, travel, and experience both as educator and administrator, having laid aside both roles without regret and without bitterness, Dr. Valentine speaks from that point of vantage, not of himself, but of what is wrong with the world. Many have done so under veils of disillusion and personal disappointment which dimmed their judgment. This book is not of that doleful sort. In Chapter XIII, "Unity and Diversity," Angus emerges cheerful and constructive. This philosophical demonstration of the impossibility of unifying a society whose individuals cannot unify themselves is a gem of pure reason.

"How could education justify to popular society the teaching of humanism to a boy or girl who would then find humanistic ideals out of step with the spirit of the times? If education made the world of Plato and St. Paul, of Whitehead and Schweitzer, seem really desirable to its graduates, it would only make them unhappy and inefficient in a world so full of snap operas, tabloids, and the ubiquitous sales talk. . . . Would any sensible society support the teaching of a philosophy likely to upset its own values?"

"All this depressed Angus when he finally took time to think about it. He felt he was sending a form of education he could not wholly approve, and wanted to send another kind that he himself could not teach. He was not sure that he knew any longer what the ideal education is, though he knew what it was not. He felt crowded into a negative position when he wanted to be in an affirmative and constructive one. Angus decided that he would do well to hand his presiding reins over to someone more confident of the virtues of current higher education, and of his own wisdom."

"What is needed is some unity more basic than outward agreements, governmental organization, social uniformity, and economic interdependence. It will have to be a unity of the human spirit. It will have to be a unity in certain common values and loyalties, such as pity, kindliness, truth, and a searching interest for some good beyond what man has thus far achieved—yet society seems to be stressing with a material value, ignoring the force and quality of spiritual ones."

"There are many causes of education's neglect of all but physical power and physical economy, and the chief one is scientific materialism. Angus came reluctantly to the conclusion that there is a second cause in the absence of effective religious education in the public schools."
June 7, 8, 9, 1957. Class Reunion, June 1912 and a veteran of both World Wars, died October 22. He was sixty-two years old and had served the Second Presbyterian Church in Auburn for thirty years, died on December 30. He was a native of Rochester and was graduate of the Rochester Academy of Medicine, Rochester. He received his medical degree from Harvard University in 1924 and had practiced medicine in Rochester since that time. A native of Rochester, Dr. Houghton was a life fellow of the American College of Surgeons and a member of the Rochester Academy of Medicine, Rochester Pathological Society, Monroe County Medical Society and was a fellow of the American Medical Association.

1924
Arthur Milanetti, Rochester attorney, died on November 22. An insurance broker for several years, Milanetti was admitted to the bar in 1935. A native of Italy, he came to Rochester at the age of nine and graduated from Rochester's West High School.

1925
George H. McKay died on October 10, 1956. Maurice B. Pendleton, for the past six years assistant manager of the National Hardwood Lumber Association, with headquarters in Chicago, was promoted in December to the position of acting secretary-manager.

1926
Edwin F. Rundell, assistant principal of East High School in Buffalo and the 1950-51 president of the Buffalo Alumni Association, died on December 6. Rundell taught at Cook Academy in Montour Falls, N. Y., from 1926, and in 1934, when he entered the armed forces, he was using as a school text in Buffalo public, private, and parochial schools. In 1931 he received his master's degree from the University of Buffalo.

1937
25th Class Reunion, June 7, 8, 9, 1957.

1938
Edward J. Cranch has been named head of the recorder and control section, Research and Development Department, Leeds and Northrup Company, Philadelphia instrument manufacturer. Cranch joined the firm in 1945 as a development engineer.
SAMUEL DE PALMA is acting director of the Office of United Nations Political and Security Affairs of the Department of State. He joined the Department in 1945 as a specialist on international organizations and since that time has been a delegate to the United Nations delegations to several international conferences. During 1952 and until June of 1953, De Palma was assistant to the Assistant Secretary of State for United Nations Affairs. He has been in the Office of the United Nations Political and Security Affairs since that time.

JOHN D. MACMILLAN is associated with Macmillan and Son, realtors, Springfield, Mass. Dr. John Q. Curtis and Esther A. Weiksnur were married in Eggertsville, N. Y., on September 8, 1956.

CHARLES H. MILLER, Jr., recently joined the Rochester law firm of Nessler and Sklover.

GLENN R. LORD has been appointed assistant general manager in charge of manufacturing for the Weapon Systems Division of the Bell Aircraft Corporation, Buffalo. He formerly was a manufacturing manager of one of the General Electric Company's Electronics Park plants in Syracuse. Lord was associated with Bell Aircraft from 1945 to 1946 and served as assistant to the manager of the Helicopter Division.

1942 15th Class Reunion, June 7, 8, 9, 1957.

KEVIN O'NEIL is manager of the personnel services division of the IBM Kingston Military Products Division, Kingston, N. Y.

JOHN W. BANES has been advanced to the post of administrative assistant and placed on special assignment in the office of the general manager for IBM.

1943

HANS M. SCHUTT has been appointed works manager for Motorola Inc., of Chicago. He has been with the company for six years.

1944

ALFRED O. GINKEL, public and personnel relations director of the Pfaulder Company in Rochester, has been transferred to the company's subsidiary in Germany, Pfaulder-Werke A.G., where he performs general management assignments to assist the three managing directors of the German subsidiary.

ALLEN M. SUTTON has been appointed sales manager for digital processing applications in banking and finance for General Electric's Industrial Computer Section, Syracuse. He first joined GE in 1947 as a physicist in the Lamp Division in Cleveland. Sutton received a law degree from Western Reserve University in 1952 and became a patent attorney for the company.

1945

Dr. HENRICK C. VAN NEE is a member of the chemical engineering faculty of Rensselaer Polytechnic Institute in Troy, N. Y. For the past four years he taught at Purdue University.

1947 10th Class Reunion, June 7, 8, 9, 1957.

Dr. David K. Aver, assistant director of dentistry at the University of Michigan, is director of a project for the transplantation and storage of live teeth in "tooth banks." If this research is successful, it could eventually lead to an end to the practice of the use of artificial replacements for teeth which are lost from decay or accident.

Dr. GRAYDON A. BAILEY is in dental practice in Danville, N. Y.

1949

WALTER P. ALLEN has been named assistant director of Gorgas Hospital, Panama Canal Zone. He formerly was assistant medical director of City Hospital, Springfield, Ohio.

1950

HAROLD LEONARD is teaching science at the Auburn (N. Y.) Community College.

Dr. KENNETH A. HOBEL is associate medical director of Bristol Laboratories, Syracuse.

JAMES W. HALL is associated with the Department of Navy's office of general counsel in Washington, D. C. He was graduated from Cornell Law School this year and was admitted to the New York State Bar in October.

James R. Perry and Albert R. Gilman have formed a public accounting firm in Rochester.

1951

FRANKLIN P. CORB and Lucille Fina were married on September 8 in Rochester.

1952

5th Class Reunion, June 7, 8, 9, 1957.

Gale F. Nadeau and Ann Clark were married on October 6 in LeRoy, N. Y. Their home is in Rochester.

Capt. ARNOLD K. BRENNAN is assigned to the Valley Forge Army Hospital, Phoenixville, Pa. Brennan is a 1953 graduate of the University of Chicago School of Medicine.

James Parkham and Susan Avery were married in October in Short Hills, N. J. Their home is in Evanston, Ill.

WILLIAM P. MANGINI and Theresa A. Julianno were married in Rochester on October 13.

ARNULF ZWIEG is an instructor in philosophy at the University of Oregon, Eugene.

A son, Edward, was born on October 27 to Mr. and Mrs. EDWARD D. ELLIOTT.

1953

Dr. JOHN P. HUMMEL is an instructor in the department of chemistry at the University of Illinois. He received his Ph.D. degree in nuclear chemistry last year from the University of California.

1954

NESTOR F. STEIN and Sylvia M. Zeller were married in October in Rochester.

1955

DAN S. MICKEL and Mary Ellen Spliston were married on July 26 in Fremont, Mich. Mickel is rector of the Mutual Life Insurance Company of New York and lives in Hackensack, N. J.

1956

LEE EDWARDS is a sophomore at the University of Buffalo Dental School.

Arthur R. Miller has been elected to the Harvard Law Review. A second year student at the Harvard Law School, Miller will serve on the Review until graduation. The Review provides law students with valuable training in legal writing and research.

A son, David, was born on June 22 to Mr. and Mrs. CHARLES BREYER of Triangle, Va. A son, Jeffrey, was born on November 9 to Mr. and Mrs. MICHAEL HAYHE.

1957

BENJAMIN LEVY is a student at the New York University School of Dentistry.

George H. Kessler, Jr., and Barbara Edward were married on September 1 in Utica, N. Y. Their home is in Baltimore, Md., where Kessler is attending Johns Hopkins Medical School.

ALBERT KINAN is studying at the University of California at Los Angeles as a recipient of a Lockheed Missile System Division advanced study award. J. RONALD BURBANK and Mary Elizabeth Metzger were married in Rochester on November 10. Their home is in Rochester.

MARVIN L. BECKER and Barbara Brightman were married in Rochester in October. Their home is in Akron, Ohio.

STEPHEN BARR is a member of the freshman class at New York University's School of Law.

ARTS AND SCIENCE—WOMEN

1902 55th Class Reunion, June 7, 8, 9, 1957.

1907 60th Class Reunion, June 7, 8, 9, 1957.

1912 65th Class Reunion, June 7, 8, 9, 1957.

1917 70th Class Reunion, June 7, 8, 9, 1957.

1922 75th Class Reunion, June 7, 8, 9, 1957.

1925 80th Class Reunion, June 7, 8, 9, 1957.

The sympathy of the class is extended to Dr. DEAN ADAMS whose husband, Earl, died on November 1. At the time of his death, Dr. Adams was assistant general secretary of the National Council of Churches in the United States.

1926

DOROTHY DUNN ALLEN is teaching science, a form of mental health work, in St. Louis where her husband, Willard, 32G, 32M, is associated with the Washington University Medical School.

1927 85th Class Reunion, June 7, 8, 9, 1957.

RUTH GROVES GARNISH and her husband, Howard, '27, have recently moved from Geneva, Switzerland, to Stockholm, Sweden. Garnish serves as public affairs officer in Sweden for the U. S. Information Agency.

ALICE BARENSBURG KELLOGG and her family have moved recently to West Milford, N. J. Her husband is an aluminum salesman and she teaches home economics in Bloomingdale, N. J. Her oldest boy is in the Coast Guard Reserve and her youngest boy and daughter are in grade school.

1929

CAROL SIMONS CLARK, instructor in French and English at Attica (N. Y.) Central School, studied during the past summer at the Sorbonne in Paris.

1930

RUTH A. HANNA has been appointed director of Christian education at the First Presbyterian Church in Oak Park, III. For the past eleven years she had been employed by IBM in Endicott, N. Y., as a statistician on the controller's staff. She resides with VIRGINIA WHITTLE BROOKE, '28, during the first few weeks after her move to the Chicago area.

1932

25th Class Reunion, June 7, 8, 9, 1957.

1935

CORA HOSCHTIEF Feld, her husband, Nicholas, and their daughter, Evelyn, returned to Rochester in October for a visit. They had been living in Singapore where Feld was U. S. Consul. He is now serving in New York as U. S. State Department representative with the
United Nations. He previously held appointments in Africa and Switzerland.

- 1937
20th Class Reunion, June 7, 8, 9, 1957.
SHIRLEY COHN BRODOW was entertained fourteen members of the class at her home on November 27. Class reunion plans were discussed.

A daughter, Linda, was born on August 31 to John and HELEN MARTIN EMERY.

Twins, Terri and Timmy, were born last May to Joseph and Eugenia Scheck HLOWAY.

DORIS FELLOWS KIMBALL and her husband have adopted two and one-half-year-old daughter, Kathi.

- 1944
CATHRINE ZAENGLEIN and Edward Weisenbeck were married in Rochester on October 13.

- 1947
19th Class Reunion, June 7, 8, 9, 1957.

- 1947
FRANCES A. HINMAN and Leon Benham were married in Clyde, N. Y., in September.

- 1948
A third child, and second daughter, Anne, was born in August to Robert, ’48, and MARILYN TARNOW LOHWATER.

Donald, ’43, and RUTH KEENE FORSYTH traveled to Alaska last summer.

A second daughter, Karen, was born in September to BEATRICE FOX ROBENSTEIN and her husband.

JEAN ANTHONY TIESCHER, her husband, and their three daughters have moved into a new home at 64 Raymond Road, Penfield, N. Y., with their son, Thomas, Jr., who was born on December 11 to George and ELIZABETH LOCKARD Davis of Berwyn, Ill. They also have three daughters.

Jean and ANN GOODENOUGH DENSE have adopted a baby boy.

A daughter, Ann Elizabeth, was born on February 13, 1956, to Roger and JUNE GOFF HERMAN of Naples, N. Y.

- 1949
10th Class Reunion, June 7, 8, 9, 1957.

A daughter, Elizabeth, was born on September 22 to Jack and ELAINE BURK HAY.

A sixteen-year-old German boy, Harold Besco, won first prize in Syracuse with Edward, ’46, and Mildred MYRA GUNTHER. Harold is visiting the country for one year under the auspices of the American Field Service and is attending high school in Syracuse. Following his graduation in June, he will tour the U. S. with other AFS students before returning to his home in Oldenburg, West Germany.

A daughter, Jean, was born on October 25 to Harvey and JANE ROBERTS PASTEL.

A son, George, was born on October 20 to Robert and EVELYN VOCK STURGE of Syracuse.

A son, Glenn, was born on October 4 to David and ETHEL McGRADY GRAVES.

A third child and second son, Kenneth, was born on September 20 to Robert and EVELYN VOCK STURGE of Syracuse.

- 1950
A daughter, Patricia, was born on December 5 to David and ‘50, and VIRGINIA WEBBER ROBINSON.

A son, Stephen, was born on September 11 to Bill and CAROL ADAM MCRONIS of Birmingham, Mich.

JACQUELINE H. SIMONSON and Edward Kreutzer were married on October 6 in Brooklyn, N. Y.

- 1952
5th Class Reunion, June 7, 8, 9, 1957.
LUCILLE HAMLEY and Richard Dempsey were married on October 21 in Arlington, Mass.

MARGARET ALLISON SMITH and her husband, George, are now living in Glenview, Ill. They are the parents of three children.

- 1953
CATHERINE DOYLE and Richard Lieb, ’52, were married on October 6 in Pittsford, N. Y.

FRANCES YOUNG MARTIN and her husband, J. MARTIN BECK are head of the music department at Elmhurst College and have been chosen as a winner of the Wagner Foundation's award for outstanding music education.

- 1954
JOSEPHINE CIMINATA teaches high school and music at the Jasper (N. Y.) Central School.

FLORENCE P. BELL and Louis Lynch, Jr., were married on September 8 in Yonkers, N. Y.

ALICE ANDREWS and Leland Potter were married in Lima, N. Y., on September 1.

- 1955
A son, Peter, was born on October 29 to the Rev. LEROY, ’47, and JANE NOBLE MOBERLY of Yonkers, N. Y., who were the Rev. Mr. Moser recently became pastor of the Webster Avenue Baptist Church. Previously he had spent six years in the pastorate of the Union University Church, Alfred, N. Y.

- 1956
JANE VOORL and Wallace WINEGARD were married on August 25 in Hightstown, N. J.

Mrs. Winegard is teaching in the Hightstown high school, and her husband is a student at Princeton Theological Seminary.

MARY E. SCHOTLAND and Dr. George A. Castellon, ’56G, were married on November 21 in Elizabeth, N. J. Their home is at 235 Sylvan Knoll Road, Stamford, Conn.

ELIZABETH V. STEINBACH is a student at the Woman's Medical College of Pennsylvania in Philadelphia.

NATALIE SILVERSTEIN and Robert Potter were married in September in Newark, N. J.

MARY DVASK and Jack R. KIRCHNER, ’54, were married in September in Yonkers, N. Y.

Their home is in Pittsburgh where Kirchner is studying for his Ph.D. degree at Carnegie Institute of Technology.

JUDITH SMITH and Lt. Harry A. Davis, USAF, were married in October.

SHERIE ANN BAKER and Stuart Platt, ’55, were married in Webster, N. Y., on October 23.
Class Notes / 21

Robert Hufstader, director of the Conservatory of Music at Rollins College, Winter Park, Fla., was chairman of the Music Teachers Association convention held in Winter Park, October 1952.

Ruth Drake Ball died on November 11, 1956.

Erna Mae Gilcher MacArthur is director of the newly-formed U. S. Army Chorus at Fort Dix, N. J., in the presentation of "The Messiah" at Carnegie Hall. She is currently soloist with the choir of the Brick Presbyterian Church and Temple Emanuel, both in New York.

Harriet Slack Richardson presented organ recitals last summer at the Municipal Auditorium in Portland, Me., and at St. Paul's Chapel at Columbia University in New York City. During the fall she played at the dedication of the memorial organ of the First Congregational Church of Springfield, Vt., and was soloist at a meeting of the American Guild of Organists, Vermont Chapter, Rutland.

Harold Meek was a member of the Boston Symphony Orchestra which toured the capitals of Europe for five and a half weeks under the sponsorship of the A. T. N. A. Included in the tour were five days in Russia with two concerts in Leningrad and three in Moscow. The orchestra also performed in Chartres, France, before an audience of 10,000 people to raise funds for the restoration of the Chartres cathedral.

Bruce Rodgers has been head of the School of Music of the College of Puget Sound since 1952. He recently received his Ph.D. in musicology from UCLA where he served as a research assistant and at the same time was director of music at the Hollywood and Vine Industrial Shows and is affiliated with the Latin Quarter Night Club.

A son, Nathaniel, was born on October 16 to Mrs. Irving Schenker.

A daughter, Anne, was born on October 30 to Charles and Helen De Jager Laksfossy.

David A. Berkowsky is associate professor of music at Duquesne University, Pittsburgh.

Theodore and Gloria Eshelman Hodges are teaching in Bergen, N. Y.

Donald Rupert is a member of the faculty at the State Teachers College, Stevens Point, Wis.

Bruce Butler is the principal tuba player in the New Orleans Philharmonic Orchestra.

James H. Tallis, minister of music at the Reformed Church, Metuchen, N. J., is working for a Master of Sacred Music degree at Union Theological Seminary, New York.

Franklyn Butler is playing French horn in the Philharmonic and City Symphonies and is teaching instrumental music in the Burnt-Hills and Ballston Lake Central Schools, Ballston Lake, N. Y.

Elizabeth Calloway Baltzer appeared as piano soloist with the Cincinnati Civic Orchestra in December.

Barbara Krancher Barnes has been studying organ for the past year and a half with Robert Whitley of St. Luke's Episcopal Church in San Francisco. She presented an organ recital at the First Presbyterian Church at Fort Bragg, N. C., in September.

A daughter, Jane, was born on October 10 to Mrs. William Page.

A son, Nathaniel, was born on October 16 to Mrs. Irving Schenker.

Mildred Northrup Wiseley is playing flute in the Niagara Falls (N. Y.) Philharmonic Orchestra and gives private flute lessons. She also teaches at the junior high school in Niagara Falls.

Paul and Eleanor Hunt Vail adopted a second child, Martha, seven weeks old, on October 18.

William Hedges has served as second flutist with the Minneapolis Symphony Orchestra for the past four years.

Clawson Cannon has been a member of the music faculty at Brigham Young University since 1948.

Dorothy Helmer Bandemer is teaching in the Ithaca (N. Y.) public schools. She serves as vice president of Mu Phi Epsilon Alumni Club of Ithaca.

Ruth Klauser Miglianti is teaching at the South Karrtridge school in Ithaca, N. Y.

Bruce Holcomb is with the Royal Canadian Air Force Training Command Band stationed in Downsview, Canada, near Toronto.

Richard F. Pierce is associated with Lou Walters Enterprises, Inc., New York, where he serves as a vice president in charge of industrial shows and is affiliated with the Latin Quarter Night Club.

Alfonso Angeloni received a Master of Arts degree from Ohio State University on August 31.

Jeannette Walkingshaw Kirk has been elected national president of Sigma Alpha Iota sorority.

Esther Atman Hammer is living in Germany where her husband, the Rev. Paul I. Hammer, is studying at Heidelberg University on a Day Scholarship from Yale University and serves as minister for the American Protestant Church in Bonn. They have two sons, John and Christopher.

Dr. Walter S. Hartley taught piano, theory, music literature, and composition at the National Music Camp, Interlochen, Mich., in the summer of 1956 and plans to return to the camp this summer. At present he is composer and musical director for the Evelyn Davis Dance Playhouse in Washington, D. C. He recently finished an orchestral work and a divinamo for cello and windwood quintette.

Joseph W. Jenkins is a member of the newly-formed U. S. Army Chorus at Fort Myer, Va., where he serves as chorus manager. He entered the Army in 1951 and formerly taught at Catholic University in Washington, D. C.

Richard Chase is band director at Wasatch Academy, Mt. Pleasant, Utah.

Franklyn Butler is playing French horn in the Philharmonic and City Symphonies and is teaching instrumental music in the Burnt-Hills and Ballston Lake Central Schools, Ballston Lake, N. Y.

Class Notes / 21
KAY KAWAGUCHI is teaching piano in Honolulu. She received her master’s degree from Columbia University in 1955.

• 1956

ISABEL HIGGS is a member of the elementary school faculty in Liberty, N. Y.

ROBERT W. PRIES has opened a studio for private instruction in clarinet, saxophone, piano, theory and composition in North Adams, Mass.

SHIRLIE COX is teaching in the public schools in Cleveland.

JOAN STEGNER is teaching in the Johnson City (N. Y.) High School.

• 1956

MARY JO CORRICK and LEE PERCE were married in Tulsa, Okla., on September 15. They are continuing their studies at the University of Tulsa.

INGRID HULTGREN is instrumental music teacher in the Newburgh (N. Y.) elementary schools.

LOUIS COCCAGNIA is a member of the U. S. Marine Corps Band in Washington, D. C.

ELEANOR SABREL and Daniel Roda, '54GE, were married August 12 in Tallahassee, Fla.

JEAN LARson CLIFFORD has a position in the Rosetown (N. Y.) schools.

ROGER KRAMER is teaching in Grand Ledge, (Mich.) public schools.

SANDRA MAUDE BARRETT is teaching band and strings at the elementary school and strings at the high school at Charlotteville, Va. She was married in August to Thomas P. Barrett, a graduate of the University of Virginia, who is now studying law at the University of Virginia.

Graduate School

• 1925

Dr. H. Newton Hubbs recently received an honorary degree from Hobart College. Dr. Hubbs has served as secretary-treasurer of Hobart and William Smith Colleges since 1943 and has been a member of the faculty since 1922, becoming full professor in 1936. From June, 1955, until June, 1956, he was acting president of the colleges. On June 8 he was named president for a twenty-two-day term to serve until the arrival on campus of the Rev. Louis M. Hirshson, Hobart’s nineteenth president.

• 1926

LILIE BAILEY HATHAWAY is chairman of the Childrens Work Commission of the New York State Council of Churches. She is a former vice president of the Christian Service of Baptist Women.

• 1928

Dr. Gustave Scherlund is now living in Winter Park, Fla.

• 1931

Since 1942, Bernard Segal has served as chief pharmacist at Miriam Hospital, Providence, R. I. He is a 1937 graduate of the Rhode Island College of Pharmacy.

• 1937

Dr. Karl Ahrendt is now in his seventh year as director of the School of Music at Ohio University.

• 1940

Dr. Claude Almand is dean of music at Stetson University, DeLand, Fla.

• 1943

Dr. Oswald G. Ragatz is associate professor of organ at Indiana University’s School of Music where he has been associated with since 1942.

• 1945

Marion Constable has been a music consultant in the newly created department of instrumental services in the Teaneck (N. J.) public schools.

• 1946

Harold Schwab is organist and choirmaster at the Newton Highlands (Mass.) Congregational Church and is also professor of music at Lasell Junior College, Auburndale, Mass.

Rowena Kickey, since 1951 a member of the music faculty at Louisiana State University, has been teaching for the past ten summers at the National Music Camp, Interlochen, Mich.

Alan J. Cope is teaching theory at the Cleveland Music School Settlement and is director of music at St. Marian’s Church and the Church of St. Rose of Lima in Cleveland. Last summer he studied in France with Nadia Boulanger and in 1955 obtained a degree in Gregorian chant from the Abbey of Saint Benoit-du-Lac in Quebec.

Nadine Borden Derby is teaching at Baylor University, Waco, Tex.

• 1947

Karl M. Holvik is president of the Iowa Bandmasters Association.

• 1948

William Brandit is teaching at the State College of Washington, Pullman.

• 1949

Ellen B. Hyde, acting superintendent of the Danville (N. Y.) public schools since February 1, 1956, was appointed superintendent in October. He previously had served over eighteen years as principal of Danville Elementary School.

• 1950

Dr. Rosemary Clark played the first movement of her second piano concerto at the Florida Music Teachers Association convention in Winter Park, Fla., in October.

Charles W. Holm is chairman of the department of theory, music literature, and woodwinds at Ripon (Wis.) College.

• 1951

Robert S. Whitehouse is associate professor of modern languages at the University of Miami, Florida. His text on English for Foreigners, “Ingles Pratico sem Mestre” was recently published by the Latin American Press, Inc., of New York.

Frank Bellico is studying at the Santa Cecilia in Rome on a Fulbright grant.

• 1952

James R. Haldrey is a member of the faculty at Ohio Wesleyan University.

Robert Keaton is teaching at Upper Iowa University, Fayette.

• 1953

Robert Stangenland is in his second year as instructor in piano and theory in the division of music of the University of Wisconsin. Since joining the faculty in September, 1953, he has presented over twenty-five concerts on the campus and throughout the state under the sponsorship of the division of music. He has often appeared in recitals with his wife, the former Elizabeth Prokop, 47E, 51G.

Donald Braatz is teaching at the Central Missouri State College, Warrensburg.

Blythe Owen Graham played her own piano concerto at the Mu Phi Epsilon national convention held in Rochester last summer. The concerto had won first prize in the sorority’s original composition contest. Recently she has appeared with the Joilet (III.) Little Symphony and at the Alumni Center at the University of Chicago. Her compositions have been featured on national programs given at the Illinois State Normal University, University Composers Exchange at the University of Wisconsin, and the Composers Festival, Lubbock, Tex.

• 1954

Dr. Norman C. White has been appointed to the Air Pollution Control Commission for the state of New Jersey. Dr. White is manager of industrial hygiene for the Shell Chemical Company of New York City, a subsidiary of the Shell Oil Company. One of his assignments has been to combat smog problems in Los Angeles and Houston where the company has plants. He formerly was in charge of industrial hygiene for Merck & Company, Rahway, N. J. Dr. White lives with his wife and three children in Cranford, N. J.

Carol Cohan Paid recently joined the Houston Symphony Orchestra directed by Leonid Stokowsky.

Robert E. Cohn is coordinator of field services at Fredonia (N. Y.) State Teachers College.

Dr. Milton Plews, formerly assistant to the director, has been appointed acting director of the Division of General and Technical Studies at the University of Buffalo.

Crawford Gates is associate professor of music at Brigham Young University in Provo, Utah. In November, 1955, he received first prize of $500 from the Max Wald Memorial Fund of New York for his Symphony No. 1 Revised. His "Overture to Spring" was performed in March, 1956, by the Utah Symphony Orchestra and in April, 1956, he was guest conductor at the annual Utah State Choral Festival sponsored by the State Federation of Music Clubs. The combined choruses and orchestra of Brigham Young performed "Belshazzar's Feast" under his direction in May, 1956, and this performance was recorded by Century Record Company of California and released commercially on November 1. He also compiles film scores with the Brigham Young Orchestra and choruses for the University's motion picture department.

Barbara Le Beau is teaching at the Avondale High School, Auburn Heights, Mich.

The premier performance of Peter Saccò's "Quintet for Clarinet and Strings" was held in the fall at the Grand Rapids (Mich.) Public Museum Auditorium.
1955
Barbara Fraser is a member of the Houston Symphony Orchestra.

Florence Adams is a member of the faculty at the Virginia Intermont College, Bristol.

Paul and Helen Billhorn Baumgartner are teaching at Miyagi College, Sendai, Japan.

1956
Helen Ininger is a member of the music faculty at McNeese State College, Lake Charles, La.

Richard J. Lanshe is an instructor in instrumental music at St. Lawrence University, Canton, N. Y.

C. Wayne Leazer is band and chorale director at Boyd High School, Salina, Kans.

Anne Morrow is teaching at Tarleton College, Stephenville, Tex.

1936
Dr. Donald H. Karshier has been appointed chief of obstetrics and gynecology at Highland Hospital in Rochester. He has been a member of the UR Medical Faculty since 1939, and is now an Assistant Professor.

1939
Dr. Lyon K. Loomis has been appointed chief of orthopedic surgery at Independence Unit, Charity Hospital, New Orleans, La. Dr. Loomis also serves the hospital as senior visiting surgeon. He has practiced in New Orleans for the past eleven years.

1944
Dr. Charles W. Caccamise, Jr., is in practice in Jackson, Miss.

1951
Dr. R. Dean Coddington recently was certified by the American Board of Pediatrics.

Dr. Arthur L. Goodrich and Jean Paul were married in October in Geneva, N. Y.

Dr. Donald L. Hinman and Patricia Ann Hogan were married on October 6 in New York City. Their home is in Jonesville, N. Y.

1954
Dr. George J. Meyer is in general practice in High Point, N. C.

Dr. Kirk R. Sterton and his wife are serving as medical missionaries under the American Board of Commissioners for Foreign Missions. They are members of the staff of the Mt. Salinda Hospital in Southern Rhodesia.

1955
Capt. Eugene J. Gangarosa is serving as a resident in medicine at Walter Reed Army Medical Center in Washington, D. C.

1955
Dr. Paul V. Hoyer is a resident in internal medicine at Massachusetts General Hospital, Boston. In January he was married to Friedriekke Wiborg in Copenhagen, Denmark. In June the Hoyers will move to Seattle, Wash., where Dr. Hoyer will join the staff of the University of Washington School of Medicine.

Annual University Costs
Reach Record $17,886,280

(Continued from page 8)
least as comprehensive as that for any university in this nation,” will amount to an estimated cost of not less than $1,400,000 a year for the University, he said.

Income from the University’s endowment funds at the rate of 5 per cent, calculated on the book value of endowment assets, paid only 19.6 per cent of the entire 1955-56 operating cost. Other sources of income:

Tuition and student fees, 14 per cent; Strong Memorial Hospital patients and Municipal Hospital, 27.4 per cent; grants in aid and sponsored research, 24.5 per cent; dormitories and dining facilities, 5.4 per cent; other gifts, 3.1 per cent; miscellaneous, 6 per cent.

Fundamental research in medicine, medical problems related to the production of atomic energy and the use of radiological materials, physics, chemistry, psychology, sociology and other fields, supported by the U. S. Government, New York State and industry, amounted to $3,665,019.

The Medical Center, including the School, its teaching hospital and related clinics, and the Atomic Energy Project accounted for total costs of $10,180,562 during the year, or 57 per cent of the total University operating costs.

Scholarships and loans granted by the University to undergraduate and graduate students aggregated $601,040, which equaled 23 per cent of the amount received in payment of student tuition and fees.

Gifts, grants and bequests to the University in 1955-56 totaled $6,482,578 as follows: For endowment, $4,343,800; for current use, $1,787,009; payments on University Development Fund pledges for current use in the College merger building program, $351,269.

Contributions to endowment included the following:

For the College of Arts and Science, $797,513, of which $733,526 was from the Ford Foundation to increase faculty salaries.

Eastman School, $212,406, including $208,406 from the Ford Foundation.

Medical School, $3,322,963, of which $3,092,455 was from the estate of the late Trustee of the University.

Barbara Buswell of Buffalo for medical research, and $205,764 from the Dr. Albert D. Kaiser Memorial Committee to establish a chair of public health and preventive medicine in memory of the late Trustee of the University.

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In protective equipment and wearing oxygen masks in order not to inhale toxic materials, these men are putting animal wastes containing alpha ray-emitting radioactive material into cans that are put in steel drums weighted with concrete, then shipped out and dumped in ocean. (Story, pages 13-16.)