*Special Report:
American Higher Education

MISSOURI Alumnus

APRIL 1958

MISSOURI Alumnus

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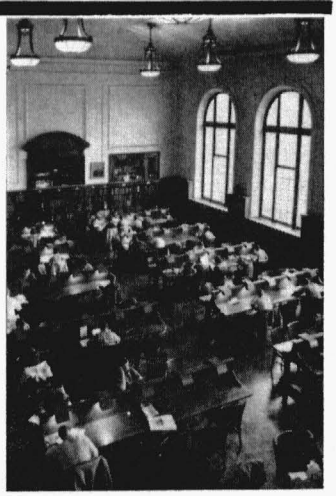
About the Cover

In choosing a picture to go along with this month's feature, American Higher Education 1958, we thought the library would serve as focal point in the educational process. Both views were taken at the General Library.



around the university

Amateur stamp designers have submitted more than forty designs for the commemorative stamp to be issued on the occasion of the 50th anniversary of the University's School of Journalism. The designs have been submitted to the Postmaster General's office to be considered by the Citizens Stamp Advisory Committee. The one-color stamp will be issued in the fall.

Dr. Frederick C. Robbins, noted pediatrician and Nobel Prize winner in medicine and physiology, was back on the campus of his Alma Mater for two days last month. He addressed a convocation of faculty and students in the School of Medicine on "Newer Aspects of Virus Disease." Dr. Robbins, professor of pediatrics at Western Reserve University School of Medicine, holds two degrees from Missouri.

Dr. Frank Luther Mott, dean emeritus of the University's School of Journalism, has won a national award for his research into American magazines. He was selected for the Kappa Tau Alpha award for his *History of American Magazines* 1885-1905, the fourth volume in a series by the Pulitzer Prize winning author.

The University of Missouri School of Mines and Metallurgy at Rolla has received a grant of $186,858 from the U. S. Atomic Energy Commission for purchase of an atomic reactor and auxiliary equipment to use in its nuclear engineering education program. Previously the School had received $111,900 from the AEC. According to information received by Dr. Curtis L. Wilson, dean of the School, similar grants were made at the same time to only two other universities —Ohio State and U. C. L. A., and apparently only these three schools will have reactors for their student training programs.

The first full-scale briefing on atomic science for newsmen of an entire state was held at the University on February 14-15.

The briefing—sponsored by the Missouri Press Association, the School of Journalism and the Argonne National Laboratory—was designed especially to explain past and present research and developments in nuclear science to laymen.

More than 40 newsmen from Missouri papers, radio and television stations attended. Also at the briefing were 21 high school educators attending as guests of their local publishers.

In addition, about 1050 students and 60 faculty members from journalism, engineering, science and medical divisions of the University also attended one session or more and visited the exhibition room.

The briefing was a pilot project for possible briefings in other states, particularly those having colleges and universities affiliated with Argonne, the nation's senior atomic energy research and development installation.

The conference was organized so that a top staff member from the Laboratory outlined the history, research and development of a particular aspect of nuclear science. Research scientists and engineers from Missouri industries and physicians from state hospitals then explained how these developments were being used in the state.

Also on the program was a discussion of the preservation of food by Dr. D. M. Doty, associate director of research and education for the American Meat Institute Foundation, Chicago.

Elmer Rylander, executive assistant for education at Argonne National Laboratory, said:

"The Laboratory has sponsored many technical briefing sessions to inform scientists and engineers of our work. This meeting, however, represents our first organized effort to give laymen an accounting of our progress in the peacetime utilization of atomic energy.

"In planning this briefing with the University of Missouri's great School of Journalism, we regarded this project as a type of educational research. We are, of course, delighted with its success."

A new $500 annual scholarship for four years in special education has been established at the University with a gift of $2,000 from the Missouri Federation of Women's Clubs. Dean Loran G. Townsend of the University's College of Education said the first award of $500 will be made for the school year opening next September, provided a student qualifies, and that similar awards will be made for another three years afterward.

Dr. Loren Reid, professor of speech, will be the main banquet speaker at a speech conference to be held on May 16-17 at Louisiana State University. The occasion is to observe the retirement of Professor C. M. Wise, for many years head of the speech and drama department at Louisiana State. Dr. Reid will represent the Speech Association of America in the capacity of its immediate past president.

This issue of the *Missouri Alumnus* is not a typical one, inasmuch as most of the pages are devoted to a special report on American Higher Education in 1958, thereby limiting the usual amount of news and features. Numerous items are being held over for the May issue. Copies of this issue are to be distributed at the annual Journalism Banquet. The *Alumnus* welcomes reaction to the 32-page supplement on higher education, which was prepared by a group of outstanding alumni editors. The report is being carried by 153 alumni magazines with a total circulation of 1,350,000.

Law school day plans

Governor James T. Blair and Judge Lue C. Lozier, '18, will receive awards for distinguished service from the Law School Alumni Association as one of the program events of Law School Day April 25 and 26.

Judge Laurance M. Hyde of the Missouri Supreme Court will receive honorary membership into Phi Delta Phi, legal fraternity. Orville Richardson of St. Louis will become an honorary member of Phi Alpha Delta. Judge Roy W. Harper of St. Louis will receive honorary membership in the Order of the Coif.

These events take place on Saturday, April 26, which is climaxed by the Law School Banquet in Rothwell Gymnasium. The speaker will be Dean Thomas F. Lambert of Boston, editor-in-chief, NACCA Law Journal. Other traditional features will be the luncheon on the Law School campus at noon, the annual meetings of Life Members of the Law School Foundation and the trustees of the Law School Foundation, and the Junior Finals of the Case Club Competition. The special court hearing the arguments is made up of Judge Cullen Coil, Commissioner of the Missouri Supreme Court; Judge Marshall Craig, 28th Judicial Circuit; and Judge William M. Kimberlin, 17th Judicial Circuit.

Two dinners on Friday night, April 25, open the annual schedule of Law School Day events. Speaker for the Law School Foundation dinner will be John W. Oliver, president of the Board of Examiners of Missouri. Presiding at the dinner will be Flavius Freeman, '35, Springfield, president of the Law School Foundation as well as the University Alumni Association. At the alumni dinner, where there will be no formal program, William Beckett, '46, Columbia, will be in charge. He is president of the Law School Alumni Association.

Also arranged as part of the Law School Day program are reunions of the classes of 1908, 1913, 1918, 1923, 1928, 1933, 1938, 1943, 1948, and 1953.

This year marks the 86th anniversary of the founding of the University's School of Law.

K. C. banquet May 3

The third annual All Schools Reunion in Kansas City is planned for Saturday evening May 3rd in the Grand Ballroom of the Muehlebach Hotel.

Over 700 Kansas City area alumni are expected for the big, annual affair which this year will be highlighted by a short program and a full evening of entertainment.

The principal speaker will be Westbrook Van Vorhies, long famous as the voice of the "March of Time." The program will also feature Dan Devine, the new head man of Missouri football fortunes, and members of the Planning Committee of the Journalism Semicentennial Celebration among others.

The dinner will begin at 7:00 P.M.

Ellis speaks in Chicago

Higher education is faced with shortages of almost everything except students, President Elmer Ellis of the University told a Chicago meeting of college administrators from twenty midwestern states. Speaking before the annual meeting of the North Central Association of Colleges and Secondary Schools on "Efficient Planning for Growth in Higher Education," he said: "We must examine and re-examine our present facilities, staff, curricula, class scheduling, calendar, and management practices, to see if more efficient use can be made of the assets we now have."

President Ellis believes that college administrators should approach the expansion in higher education as a great opportunity, not as a tragedy, and that it should not be assumed that the expansion must be accompanied by a lowering of quality.

The need is greater than ever for colleges to work closely with high schools, he said, for "it is much to our advantage both academically and financially that while in the secondary school the students master thoroughly the studies which will best prepare them for whatever they undertake after coming to college."

A similar problem, he said, exists in many states between the senior colleges and the junior colleges, and in some curricula there is a great need or close coordination between the four-year colleges and the professional schools of the university. This is necessary in order to facilitate mutually advantageous transfer of students to professional study programs.

President Ellis referred to the tendency to hold enrollments down by raising admission requirements. "Colleges and universities must not spend time and resources with students who do not do a reasonable quantity of college work. But if we should raise admission requirements significantly we would deny college opportunity to thousands having the potential of those we have been happy to graduate in the past. This would eliminate a sizeable segment of trained manpower badly needed by the nation.

"Our most serious problem in the years ahead will be securing and keeping an adequate number of properly trained faculty members. This will make the improvement of teaching difficult but all the more necessary, because there is no more profitable way of stepping up the overall efficiency of our institutions than by making the teaching more effective."

Hoosierland alumni meet

On Friday March 28 the Central Indiana Alumni Club met at Brodey's Village Inn in Indianapolis. President Hugh Teeters announced to the 35 attending alumni that the club had undertaken a campaign for new members in the area. The members of the committee are: Hugh Teeters, Ed Miller, Wilkes Dinwiddie, Irving Freeman, Stan Cebula and Mrs. Roy Talbert. Assistant Alumni Director Jean Madden reported on campus changes during the past year.

Gift funds allocated

Allocation of unrestricted funds contributed to the Alumni Achievement Fund for the year 1957-58 includes $5,350 to the Committee on Aids and Awards to provide a total of thirty-one scholarships.

This was the largest single item among the allocations, which came to a total of $13,371.44. Other funds in the annual giving program were channeled to the sources specified by the donors.

Assignment of the non-earmarked funds was recommended by the Plans and Projects Committee, made up of faculty and alumni representatives, which gave careful consideration to requests. The committee's recommendations were submitted to the President for approval and then were formally approved by the Board of Curators.

Thirty scholarships, each worth $170, are to be awarded mainly to sophomores who, as freshmen, held Board of Curators Scholarships. In addition, a new $250 scholarship is to be awarded to an outstanding athlete in his sophomore year who has also made an excellent record as a student. This is the second year that the Alumni Achievement Fund has provided thirty sophomore scholarships.

Other allotments include:

An allocation of $2,500 as part of the cost toward establishing a University of Missouri Press, as requested by the President, with the understanding that a similar request would be made for each of the three succeeding years.

A grant of $500 to the Student Government Association to be used in developing "The University of Missouri Recreational Area" in cooperation with, and under the supervision of, the Office of the Dean of Students.

An allocation of $3,500 to finance the construction of a field laboratory building for the Botany Department-Tucker Prairie Project. This project has been given top priority by the Dean of the College of Arts and Science. (Last year, the University, through the help of a grant of $19,000 from the National Science Foundation and numerous additional gifts from alumni and friends, secured title to the virgin prairie acreage).

An allocation of $850 to defray the cost of an electric computer which is to be part of the computing program of the University servicing the several departments. Purchase of this equipment was recommended by both the Dean of the Graduate School and the Dean of the College of Arts and Science.

A sum of $400 to purchase a tape recorder and playback machine for the use of Dr. Charlotte Wells of the Department of Speech. This equipment will supplement the audiometer that was purchased last year through Alumni Fund allocation.

An allocation of $217.44 to the Crippled Children's Service to purchase educational supplies needed in the educational program of the Service.

Collection given to M. U.

The University has received a collection of books, antiques, scrolls, pictures, and commemorative medals bequeathed by John Lawrence Gehrig, a native of Ashland, Mo., an alumnus and former teacher at the University, who died at his home in New York City last September.

The collection includes many books, one of them published as early as 1540 and others published during the 16th and 17th centuries.

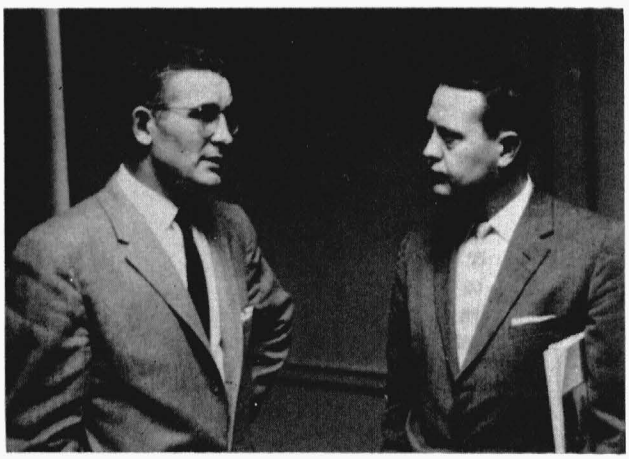
The University librarian plans a display of some of the interesting articles in the exhibit cases in the General Library, and the books will be catalogued and made available for research and study.

Mr. Gehrig was born in Ashland Nov. 30, 1878. He received his A.B. degree from the University in 1898 and his Master of Arts degree in 1899. He took his Ph.D. degree at the University of Nebraska in 1902, and was awarded an honorary LL.D. degree by the University of Missouri in 1941.

Mr. Gehrig taught Romance languages at the University during the year he was working toward his master's degree, and later taught at Williams College and then Columbia University. He was executive officer of the department of Romance languages at Columbia University from 1919 until 1929.

Boyd Ewing new curator

Boyd Ewing, '21, Nevada, Mo. lawyer, has been appointed to the University Board of Curators by Governor James T. Blair. He succeeds the late Powell B. McHaney and will serve until January, 1961. Governor Blair actually named Delos C. Johns of St. Louis to the post but Johns resigned February 18. Since Johns was never confirmed by the state senate, Ewing technically succeeds Mr. McHaney. Mr. Ewing's appointment was confirmed by the Senate.



Maurice Kirk of Higginsville and Dennis Davidson of Hannibal chat during a break in a recent meeting of the Alumni Association Board of Directors.

The J School's 50th Anniversary starting this summer adds luster to Journalism Week. Here are celebration planning committeemen as they met in Chicago recently. Seated, from left: *Jack Hackethorn; Morris E. Jacobs, general chairman; F. M. (Jack) Flynn, finance chairman; and Dean Earl English.* Standing: *John Conde and Walter Reed; Sam Montague, executive director; and Nathan E. Jacobs, public relations committee chairman.*

Journalism's week-long program

This year's Journalism Banquet speakers are two midwesterners who rose to the top in their fields. They are Eugene C. Pulliam, publisher of the Indianapolis (Ind.) Star, and Dr. Frank Stanton, president of the Columbia Broadcasting System.

The banquet will be held in Rothwell Gymnasium on May 2, when 750 persons are expected to attend. Dean Earl English will preside.

The 49th Journalism Week begins April 28 and ends May 3. Speakers and panelists for each day include:

Monday—Wayne Lindsey, Kansas City; Dr. Paul L. Fisher, Jr., associate professor of journalism; Dr. William H. Peden, professor of English; and Donald Romero and Newton Townsend, assistant professors of journalism: Mrs. Gretchen Harshbarger, garden editor, Household Magazine; and Lewis Nordyke, author, Amarillo, Tex.

Tuesday—Mrs. Martha L. Zahrt, Dallas, manager of Braniff Airways publications; Victor Lensner, Cleveland, art director, Ohio Bell Publications; John E. Solomon, Kansas City, publications manager, Western Auto Supply Co.; Robert Criger of Sheffield Steel in Kansas City; Martin H. Bowerman, St. Louis, Union Electric Co.

Wednesday—James H. Dowling, holder of the Li Foundation Fellowship for travel in East Asia, speaks at night. Fifteenth Annual Pictures-of-the-Year Competition in the morning; Missouri Association of Broadcasters discussions in the afternoon.

Thursday—Fred A. Palmer, Columbus, Ohio sales consultant; Leo G. Piper, Byron (Ill.) Tribune; Miss Ella Wyatt Davis, station KAKC, Tulsa, Okla; Norma Packard, assistant fashion coordinator, Allied Stores in New York; Allan Schmid, a graduate student in journalism recently released from the army; and Henry Gordon, reporter, Cleveland (O.) Press.

Speakers Thursday night: Daniel R. Fitzpatrick, editorial cartoonist, St. Louis Post-Dispatch; and Samuel Brightman of Washington, D. C., publicity chairman, Democratic national committee.

Friday—Clarissa Start Davidson, columnist, St. Louis Post-Dispatch; Wallace Lee Turner, Pulitizer Prize winning reporter, Portland Oregonian. Harold E. Fey, editor of Christian Century, speaking at presentation of the Missouri Honor Awards for Distinguished Service, followed by reception at the home of President and Mrs. Elmer Ellis, and the banquet in Rothwell Gymnasium.

Saturday—Lowell E. Jessen, publisher, Livermore (Calif.) Herald and president, National Editorial Association, and Henry Gordon of the Cleveland Press, speaking at the Missouri Press Association luncheon, following the association's annual meeting.

Miss Mary Kimbrough, feature writer, St. Louis Post-Dispatch, will speak at the annual Matrix Table dinner of Theta Sigma Phi Tuesday evening; and Jameson G. Campaigne, editor of the Indianapolis Star editorial page, will address the Missouri College Newspaper Association on Friday. Numerous other organizations will hold sessions during the week.

Freedom of information center

Whereas the University of Missouri has expressed its interest and intent in establishing a permanent Freedom of Information Center for the purpose of advancing the right of the people to know and to be informed through all means of communication, printed, oral, and visual,

And whereas the University has sought the advice and counsel of representatives of all newsgathering media at a meeting at the University on March 13-14, 1958.

Now therefore be it resolved by the undersigned assembled representatives of newsgathering media, following thorough exploration, that we commend and endorse the concept of establishing a Freedom of Information Center at the School of Journalism and pledge to this project our full support, endorsement and assistance in developing and maintaining the Center's objectives, values and programs.

Thus read the resolution adopted by the group attending a two-day seminar at the University. The seminar resulted from conferences of the Freedom of Information Committee of the National Editorial Association at the NEA's annual meeting in Chicago in October, 1957.

Participating in the seminar were members of the following organizations: National Editorial Association, National Press Photographers' Association, National Association of Broadcasters, Inland Press Association, NBC News (Chicago), Missouri Press Association, Newspaper Managers Association, CBS-TV News (New York), Sigma Delta Chi, Associated Press Managing Editors, and Southern Newspaper Editors Association.

Representing NEA at the seminar were Lowell Jessen, Livermore, Calif., president; Paul C. Smith, Rock Rapids, Ia., director; Hugh Boyd, New Brunswick, N. J.; Guy Easterly, LaFollette, Tenn.; and Ware Edgar, Knox, Ind. Others attending included Dick Applegate, NBC News, Chicago; Howard Bell, National Association of Broadcasters, Washington, D. C.; William Bray, Missouri Press Association; Joseph Costa, King Features, New York; Arthur F. Duncan, Kansas City Star; Coleman Harwell, Nashville Tennessean; Malcolm Johnson, CBS Television News, New York; Robert McCandless, Lindsay-Schaub Newspapers, Urbana-Champaign, Ill.; Robert M. White, Mexico (Mo.) Daily Ledger; and Arthur L. Witman, St. Louis Post-Dispatch.

Moderating the sessions were Journalism Dean Earl F. English and Professor Paul L. Fisher.

These planners attended seminar at the University. They are, from left: Fisher, Harwell, Costa, Boyd, Duncan (back of Boyd), Bell, English, McCandless (back of English), Lambert, Montague, Millis (in front), Edgar, Smith; (small group at right, front row:) Easterly, White, Witman, Jessen, Applegate, Johnson.

A SPECIAL REPORT

AMERICAN HIGHER EDUCATION 1958

ITS PRESSING PROBLEMS AND NEEDS ARE EXCEEDED ONLY BY ITS OPPORTUNITIES

THIS is a special report. It is published because the time has come for colleges and universities—and their alumni—to recognize and act upon some extraordinary challenges and opportunities.

Item: Three million, sixty-eight thousand young men and women are enrolled in America's colleges and universities this year—45 per cent more than were enrolled six years ago, although the number of young people in the eighteen-to-twenty-one age bracket has increased only 2 per cent in the same period. A decade hence, when colleges will feel the effects of the unprecedented birth rates of the mid-1940's, today's already-enormous enrollments will double.

Item: In the midst of planning to serve *more* students, higher education is faced with the problem of not losing sight of its *extraordinary* students. "What is going to happen to the genius or two in this crowd?" asked a professor at one big university this term, waving his hand at a seemingly endless line of students waiting to fill out forms at registra-

HIGHER education in America had its beginnings when the Puritans founded a college to train their ministers. Here, reflected in a modern library window, is the chapel spire at Harvard.

tion desks. "Heaven knows, if the free world ever needed to discover its geniuses, it needs to do so now." President Robert Gordon Sproul of the University of California puts it this way: "If we fail in our hold upon quality, the cherished American dream of universal education will degenerate into a nightmare."

Item: A college diploma is the *sine qua non* for almost any white-collar job nowadays, and nearly everybody wants one. In the scramble, a lot of students are going to college who cannot succeed there. At the Ohio State University, for instance, which is required by law to admit every Ohioan who owns a high-school diploma and is able to complete the entrance blanks, two thousand students flunked out last year. Nor is Ohio State's problem unique. The resultant waste of teaching talents, physical facilities, and money is shocking—to say nothing of the damage to young people's self-respect.

Item: The cost of educating a student is soaring. Like many others, Brown University is boosting its fees this spring: Brown students henceforth will pay an annual tuition bill of $1,250. But it costs Brown $2,300 to provide a year's instruction in return. The difference between charges and actual cost, says Brown's President Barnaby C. Keeney, "represents a kind of scholarship from the faculty. They pay for it out of their hides."

Item: The Educational Testing Service reports that lack of money keeps many of America's ablest high-school students from attending college—150,000 last year. The U. S. Office of Education found not long ago that even at public colleges and universities, where tuition rates are still nominal, a student needs around $1,500 a year to get by.

Item: Non-monetary reasons are keeping many promising young people from college, also. The Social Science Research Council offers evidence that fewer than half of the students in the upper tenth of their high-school classes go on to college. In addition to lack of money, a major reason for this defection is "lack of motivation."

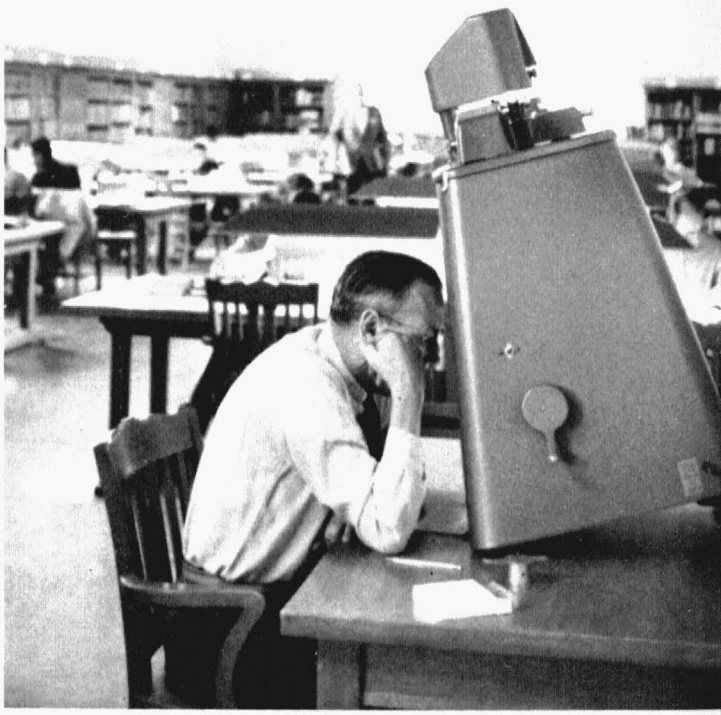
Item: At present rates, only one in eight college teachers can ever expect to earn more than $7,500 a year. If colleges are to attract and hold competent teachers, says Devereux C. Josephs, chairman of the President's Committee on Education Beyond the High School, faculty salaries must be increased by at least

FROM its simple beginnings, American higher education has grown into 1,800 institutions of incredible diversity. At the right is but a sampling of their vast interests and activities.

50 per cent during the next five years. Such an increase would cost the colleges and universities around half a billion dollars a year.

Item: Some critics say that too many colleges and universities have been willing to accept—or, perhaps more accurately, have failed firmly to reject—certain tasks which have been offered to or thrust upon them, but which may not properly be the business of higher education at all. "The professor," said one college administrator recently, "should not be a carhop who answers every demanding horn. Educational institutions must not be hot-dog stands."

Item: The colleges and universities, some say, are not teaching what they ought to be teaching or are not teaching it effectively. "Where are the creative thinkers?" they ask. Have we, without quite realizing it, grown into a nation of gadgeteers, of tailfin technicians, and lost the art of basic thought? (And from all sides comes the worried reminder that the other side launched their earth satellites first.)



UNIVERSITY OF NEW MEXICO

THESE are some of the problems—only some of them—which confront American higher education in 1958. Some of the problems are higher education's own offspring; some are products of the times.

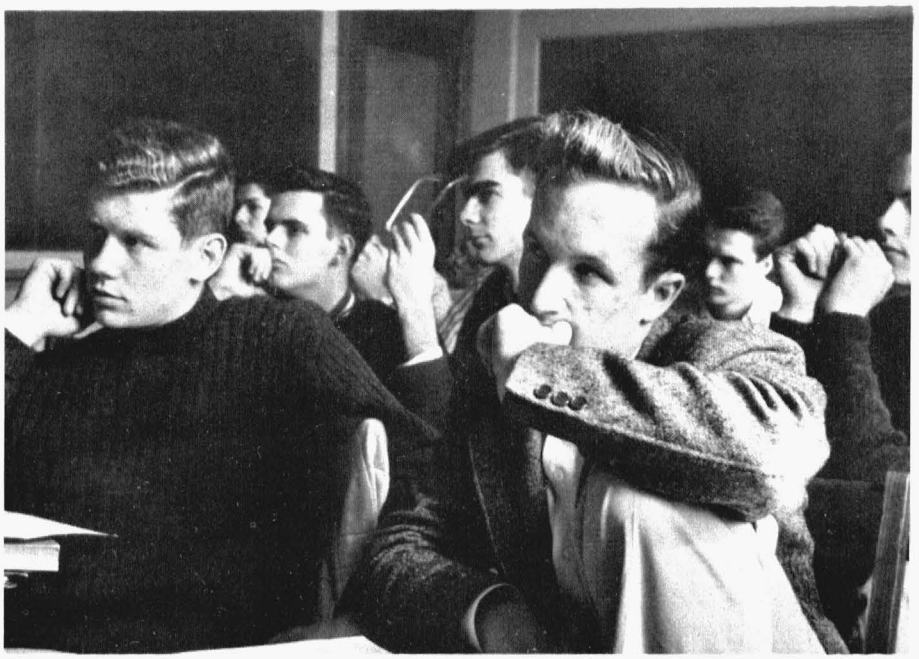
But some are born of a fact that is the identifying strength of higher education in America: its adaptability to the free world's needs, and hence its diversity.

Indeed, so diverse is it—in organization, sponsorship, purpose, and philosophy—that perhaps it is fallacious to use the generalization, "American higher education," at all. It includes 320-year-old Harvard and the University of Southern Florida, which now is only on the drawing boards and will not open until 1960. The humanities research center at the University of Texas and the course in gunsmithing at Lassen Junior College in Susanville, California. Vassar and the U. S. Naval Academy. The University of California, with its forty-two thousand students, and Deep Springs Junior College, on the eastern side of the same state, with only nineteen.

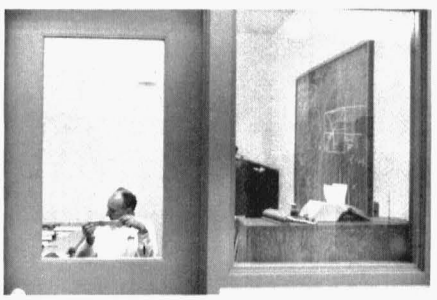
Altogether there are more than 1,800 American institutions which offer "higher education," and no two of them are alike. Some are liberal-arts colleges, some are

MILLS COLLEGE

DARTMOUTH COLLEGE



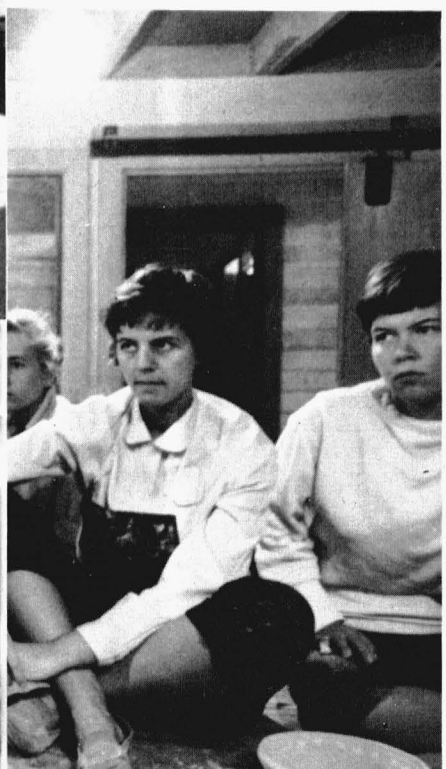
AMHERST COLLEGE



UNIVERSITY OF CALIFORNIA

DEEP SPRINGS JUNIOR COLLEGE

EMORY UNIVERSITY



UNIVERSITY OF KANSAS .

With growth have come problems for the colleges and universities. One of the most pressing, today, is swelling enrollments. Already they are straining higher education's campuses and teaching resources. But the present large student population is only a fraction of the total expected in the next decade.

SMITH COLLEGE

vast universities, some specialize in such fields as law, agriculture, medicine, and engineering. Some are supported by taxation, some are affiliated with churches, some are independent in both organization and finance. Thus any generalization about American higher education will have its exceptions—including the one that all colleges and universities desperately need more money. (Among the 1,800, there may be one or two which don't.) In higher education's diversity—the result of its restlessness, its freedom, its geography, its competitiveness—lies a good deal of its strength.

AMERICAN higher education in 1958 is hardly what the Puritans envisioned when they founded the country's first college to train their ministers in 1636. For nearly two and a half centuries after that, the aim of America's colleges, most of them founded by churches, was limited: to teach young people the rudiments of philosophy, theology, the classical languages, and mathematics. Anyone who wanted a more extensive education had to go to Europe for it.

One break from tradition came in 1876, with the founding of the Johns Hopkins University. Here, for the first time, was an American institution with European standards of advanced study in the arts and sciences.

Other schools soon followed the Hopkins example. And with the advanced standards came an emphasis on research. No longer did American university scholars

IN the flood of vast numbers of students, the colleges and universities are concerned that they not lose sight of the individuals in the crowd. They are also worried about costs: every extra student adds to their financial deficits.

HARVARD UNIVERSITY

simply pass along knowledge gained in Europe; they began to make significant contributions themselves.

Another spectacular change began at about the same time. With the growth of science, agriculture—until then a relatively simple art—became increasingly complex. In the 1850's a number of institutions were founded to train people for it, but most of them failed to survive.

In 1862, however, in the darkest hours of the Civil War, Abraham Lincoln signed the Morrill Land-Grant Act, offering each state public lands and support for at least one college to teach agriculture and the mechanic arts. Thus was the foundation laid for the U. S. state-university system. "In all the annals of republics," said Andrew D. White, the first president of one institution founded under the act, Cornell University, "there is no more significant utterance of confidence in national destiny, out from the midst of national calamity."

NOW there was no stopping American higher education's growth, or the growth of its diversity. Optimistically America moved into the 1900's, and higher education moved with it. More and more Americans wanted to go to college and were able to do so. Public and private institutions were established and expanded. Tax dollars by the millions were appropriated, and philanthropists like Rockefeller and Carnegie and Stanford vied to support education on a large scale. Able teachers, now being graduated in numbers by America's own universities, joined their staffs.

In the universities' graduate and professional schools, research flourished. It reached outward to explore the universe, the world, and the creatures that inhabit it. Scholars examined the past, enlarged and tended man's cultural heritage, and pressed their great twentieth-century search for the secrets of life and matter.

Participating in the exploration were thousands of young Americans, poor and rich. As students they were acquiring skills and sometimes even wisdom. And, with their professors, they were building a uniquely American tradition of higher education which has continued to this day.

OUR aspirations, as a nation, have never been higher. Our need for educational excellence has never been greater. But never have the challenges been as sharp as they are in 1958.

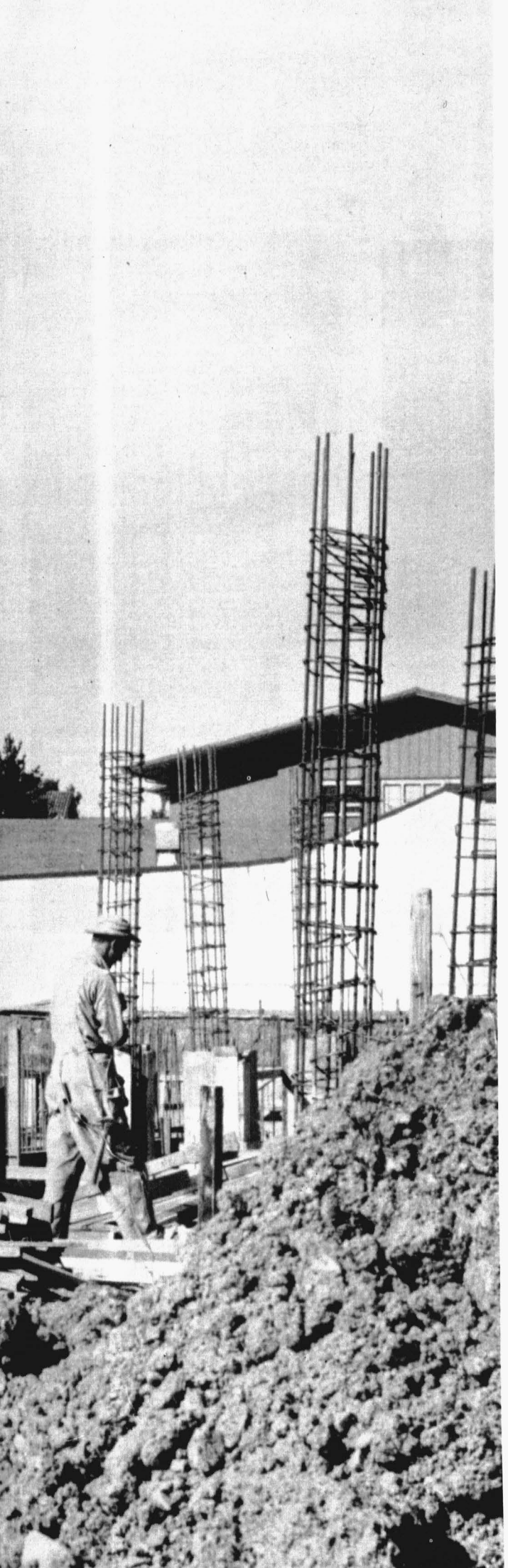
Look at California, for one view of American education's problems and opportunities—and for a view of imaginative and daring action, as well.

Nowhere is the public appetite for higher education more avid, the need for highly trained men and women more clear, the pressure of population more acute. In a recent four-year period during which the country's population rose 7.5 per cent, California's rose some 17.6 per cent. Californians—with a resoluteness which is, unfortunately, not typical of the nation as a whole—have shown a remarkable determination to face and even to anticipate these facts.

They have decided that the state should build fifteen new junior colleges, thirteen new state colleges, and five new campuses for their university. (Already the state has 135 institutions of higher learning: sixty-three private establishments, sixty-one public junior colleges, ten state colleges, and the University of California with eight campuses. Nearly 40 cents of every tax dollar goes to support education on the state level.)

But California has recognized that providing new facilities is only part of the solution. New philosophies are needed, as well.

The students looking for classrooms, for example, vary tremendously, one from the other, in aptitudes, aims, and abilities. "If higher education is to meet the varied needs of students and also the diverse requirements of an increasingly complex society," a California report says, "there will have to be corresponding diversity among and within educational institutions. . . . It will



UNIVERSITY OF CALIFORNIA

To accommodate more students
and to keep pace with increasing demands
for complex research work,
higher education must spend more on construction
this year than in any other year in history.

not be sufficient for California—or any other state, for that matter—simply to provide enough *places* for the students who will seek college admission in future years. It will also have to supply, with reasonable economy and efficiency, a wide range of educational *programs.*"

Like all of the country, California and Californians have some big decisions to make.

DR. LEWIS H. CHRISMAN is a professor of English at West Virginia Wesleyan, a Methodist college near the town of Buckhannon. He accepted an appointment there in 1919, when it consisted of just five major buildings and a coeducational student body of 150. One of the main reasons he took the appointment, Dr. Chrisman said later, was that a new library was to be built "right away."

Thirty years later the student body had jumped to 720. Nearly a hundred other students were taking extension and evening courses. The zooming postwar birth rate was already in the census statistics, in West Virginia as elsewhere.

But Dr. Chrisman was still waiting for that library. West Virginia Wesleyan had been plagued with problems. Not a single major building had gone up in thirty-five years. To catch up with its needs, the college would have to spend $500,000.

For a small college to raise a half million dollars is often as tough as for a state university to obtain perhaps ten times as much, if not tougher. But Wesleyan's president, trustees, faculty, and alumni decided that if independent colleges, including church-related ones, were to be as significant a force in the times ahead as they had been in the past, they must try.

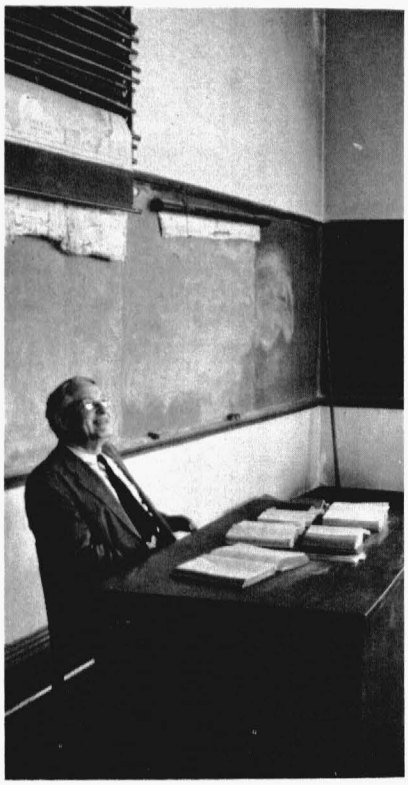
Now West Virginia Wesleyan has an eighty-thousand-volume library, three other buildings completed, a fifth to be ready this spring, and nine more on the agenda.

A group of people reached a hard decision, and then made it work. Dr. Chrisman's hopes have been more than fulfilled.

So it goes, all over America. The U. S. Office of Education recently asked the colleges and universities how much they are spending on new construction this year.

UNIVERSITY OF CALIFORNIA

WEST VIRGINIA WESLEYAN COLLEGE



THE most serious shortage that higher education faces is in its teaching staffs. Many are underpaid, and not enough young people are entering the field. Here, left to right, are a Nobel Prizewinning chemist, a Bible historian, a heart surgeon, a physicist, and a poet.

Ninety per cent of them replied. In calendar 1958, they are spending $1.078 billion.

Purdue alone has $37 million worth of construction in process. Penn has embarked on twenty-two projects costing over $31 million. Wake Forest and Goucher and Colby Colleges, among others, have left their old campuses and moved to brand-new ones. Stanford is undergoing the greatest building boom since its founding. Everywhere in higher education, the bulldozer, advance agent of growth, is working to keep up with America's insatiable, irresistible demands.

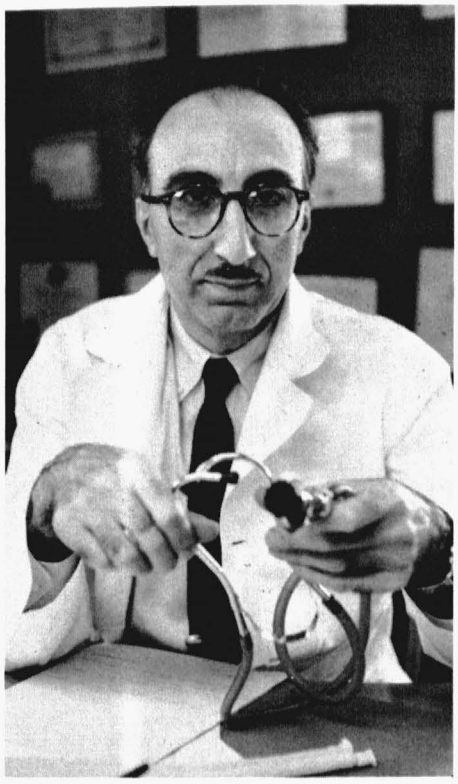
BUILDING PROJECTS, however, are only the outward and visible signs of higher education's effort to stay geared to the times. And in many ways they are the easiest part of the solution to its problems. Others go deeper.

Not long ago the vice president of a large university was wondering aloud. "Perhaps," he said, "we have been thinking that by adding more schools and institutes as more knowledge seemed necessary to the world, we were serving the cause of learning. Many are now calling for a reconsideration of what the whole of the university is trying to *do*."

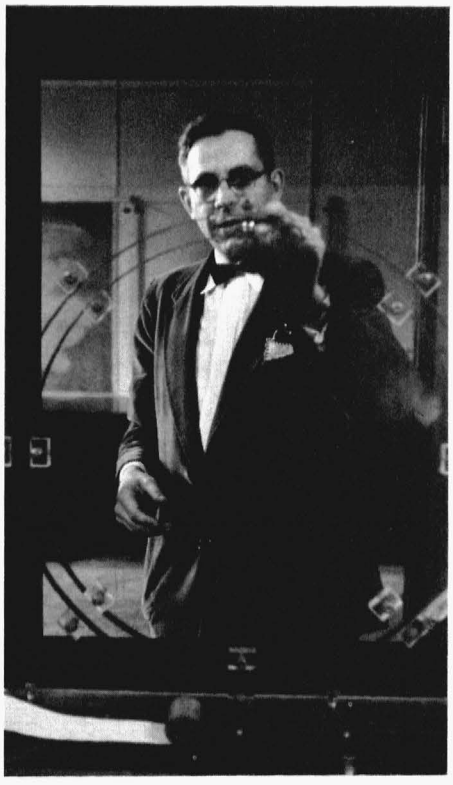
The problem is a very real one. In the course of her 200-year-plus history, the university had picked up so many schools, institutes, colleges, projects, and "centers" that almost no one man could name them all, much less give an accurate description of their functions. Other institutions are in the same quandary.

Why? One reason is suggested by the vice president's comment. Another is the number of demands which we as a nation have placed upon our institutions of higher learning.

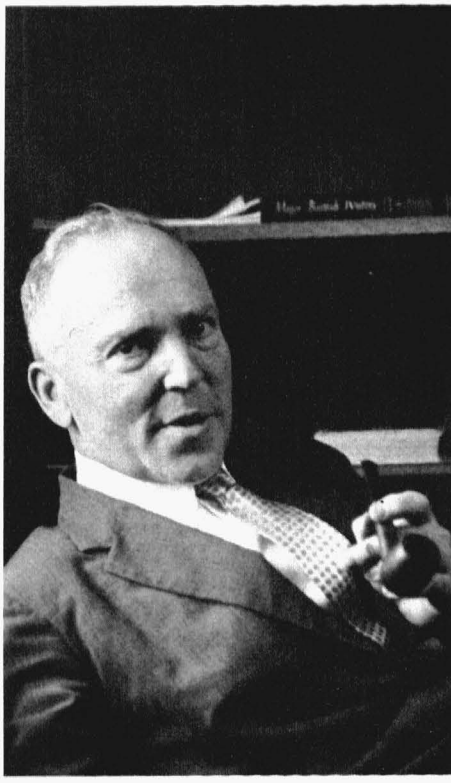
We call upon them to give us space-age weapons and



BAYLOR UNIVERSITY



RENSSELAER POLYTECHNIC INSTITUTE



DARTMOUTH COLLEGE

polio vaccine. We ask them to provide us with lumbermen and liberally educated PTA presidents, doctors and statesmen, business executives and poets, teachers and housewives. We expect the colleges to give us religious training, better fertilizers, extension courses in music appreciation, fresh ideas on city planning, classes in square dancing, an understanding of medieval literature, and basic research.

The nation does need many services, and higher education has never been shy about offering to provide a great portion of them. Now however, in the face of a multitude of pressures ranging from the population surge to the doubts many people have about the quality of American thought, there are those who are wondering if America is not in danger of over-extending its educational resources: if we haven't demanded, and if under the banner of higher education our colleges and universities haven't taken on, too much.

AMERICA has never been as ready to pay for its educational services as it has been to request them. A single statistic underlines the point. We spend about seven tenths of 1 per cent of our gross national product on higher education. (Not that we should look to the Russians to set our standards for us —but it is worth noting that they spend on higher education more than 2 per cent of *their* gross.)

As a result, this spring, many colleges and universities find themselves in a tightening vise. It is not only that prices have skyrocketed; the *real cost* of providing education has risen, too. As knowledge has broadened and deepened, for example, more complicated and costly equipment has become essential.

Feeling the financial squeeze most painfully are the faculty members. The average salary of a college or university teacher in America today is just over $5,000. The average salary of a full professor is just over $7,000.

It is a frequent occurrence on college campuses for a graduating senior, nowadays, to be offered a starting salary in industry that is higher than that paid to most of the faculty men who trained him.

On humane grounds alone, the problem is shocking. But it is not limited to a question of humaneness; there is a serious question of national welfare, also.

"Any institution that fails through inability or delinquency to attract and hold its share of the best academic minds of the nation is accepting one of two consequences," says President Cornelis W. de Kiewiet of the University of Rochester. "The first is a sentence of inferiority and decline, indeed an inferiority so much greater and a decline so much more intractable that trustees, alumni, and friends can only react in distress when they finally see the truth. . . .

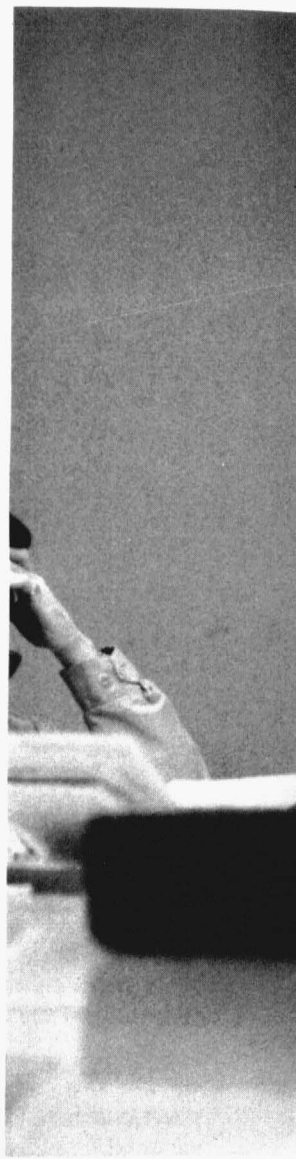
"The second . . . is the heavy cost of rehabilitation once the damage has been done. In education as in business there is no economy more foolish than poor maintenance and upkeep. Staffs that have been poorly maintained can be rebuilt only at far greater cost. Since even less-qualified and inferior people are going to be in short supply, institutions content to jog along will be denied even the solace of doing a moderate job at a moderate cost. It is going to be disturbingly expensive to do even a bad job."

The effects of mediocrity in college and university teaching, if the country should permit it to come about, could only amount to a national disaster.

WITH the endless squeezes, economies, and crises it is experiencing, it would not be particularly remarkable if American higher education, this spring, were alternately reproaching its neglecters and struggling feebly against a desperate fate. By and large, it is doing nothing of the sort.

Instead, higher education is moving out to meet its problems and, even more significantly, looking beyond them. Its plans take into account that it may have twice as many students by 1970. It recognizes that it must not, in this struggle to accommodate quantity, lose sight of quality or turn into a molder of "mass minds." It is continuing to search for ways to improve its present teaching. It is charting new services to local communities, the nation, and vast constituencies overseas. It is entering new areas of research, so revolutionary that it must invent new names for them.

CONSIDER the question of maintaining quality amidst quantity. "How," educators ask themselves, "can you educate everyone who is ambitious and has the basic qualifications, and still have time, teachers, and money to spend on the unusual boy or girl? Are we being true to our belief in the individual if we put everyone into the same mold, ignoring human differences? Besides, let's be practical about it: doesn't this country need to develop every genius it has?"



EXCEPTIONAL students must not be overlooked, especially in a time when America needs to educate every outstanding man and woman to fullest capacity. The students at the right are in a philosophy of science class.

There is one approach to the problem at an institution in eastern California, Deep Springs. The best way to get there is to go to Reno, Nevada, and then drive about five hours through the Sierras to a place called Big Pine. Deep Springs has four faculty members, is well endowed, selects its students carefully, and charges no tuition or fees. It cannot lose sight of its good students: its total enrollment is nineteen.

At another extreme, some institutions have had to

STANFORD UNIVERSITY

devote their time and effort to training as many people as possible. The student with unusual talent has had to find it and develop it without help.

Other institutions are looking for the solution somewhere in between.

The University of Kansas, for example, like many other state universities, is legally bound to accept every graduate of an accredited state high school who applies, without examinations or other entrance requirements. "Until recently," says Dean George Waggoner of Kansas's College of Liberal Arts and Sciences, "many of us spent a great deal of our time trying to solve the problem of marginal students."

In the fall of 1955, the university announced a program designed especially for the "gifted student." Its objective: to make sure that exceptional young men and women would not be overlooked or under-exposed in a time of great student population and limited faculty.

Now Kansas uses state-wide examinations to spot these exceptional high-school boys and girls early. It invites high-school principals to nominate candidates for scholarships from the upper 5 per cent of their senior classes. It brings the promising high-school students to its Lawrence campus for further testing, screening, and selection.

When they arrive at the university as freshmen, the students find themselves in touch with a special faculty committee. It has the power to waive many academic rules for them. They are allowed to take as large a bite of education as they can swallow, and the usual course

UNIVERSITY OF KANSAS

EVEN in institutions with thousands of students, young people with extraordinary talents can be spotted and developed. This teacher is leading an honors section at a big university.

prerequisites do not apply; they may enter junior and senior-level courses if they can handle the work. They use the library with the same status as faculty members and graduate students, and some serve as short-term research associates for professors.

The force of the program has been felt beyond the students and the faculty members who are immediately involved. It has sent a current throughout the College of Liberal Arts and Sciences. All students on the dean's honor roll, for example, no longer face a strict limit in the number of courses they may take. Departments have strengthened their honor sections or, in some cases, established them for the first time. The value of the program reaches down into the high schools, too, stimulating teachers and attracting to the university strong students who might otherwise be lost to Kansas.

Across the country, there has been an attack on the problem of the bright student's boredom during his early months in college. (Too often he can do nothing but fidget restlessly as teachers gear their courses to students less talented than he.) Now, significantly large numbers are being admitted to college before they have finished high school; experiments with new curricula and opportunities for small discussion groups, fresh focus, and independent study are found in many schools. Foundations, so influential in many areas of higher education today, are giving their support.

The "quality *vs.* quantity" issue has other ramifications. "Education's problem of the future," says President Eldon L. Johnson of the University of New Hampshire, "is the relation of mind and mass. . . . The challenge is to reach numbers without mass treatment and the creation of mass men. . . . It is in this setting and this philosophy that the state university finds its place."

And, one might add, the independent institution as well. For the old idea that the public school is concerned with quantity and the private school with quality is a false one. All of American higher education, in its diversity, must meet the twin needs of extraordinary persons and a better educated, more thoughtful citizenry.

WHAT *is* a better educated, more thoughtful citizenry? And how do we get one? If America's colleges and universities thought they had the perfect answers, a pleasant complacency might spread across the land.

In the offices of those who are responsible for laying out programs of education, however, there is anything but complacency. Ever since they stopped being content with a simple curriculum of theology, philosophy, Latin, Greek, and math, the colleges and universities have been searching for better ways of educating their students in breadth as well as depth. And they are still hunting.

Take the efforts at Amherst, as an example of what many are doing. Since its founding Amherst has developed and refined its curriculum constantly. Once it offered a free elective system: students chose the courses they wanted. Next it tried specialization: students selected a major field of study in their last two years. Next, to make sure that they got at least a taste of many different fields, Amherst worked out a system for balancing the elective courses that its students were permitted to select.

But by World War II, even this last refinement seemed inadequate. Amherst began—again—a re-evaluation.

When the self-testing was over, Amherst's students began taking three sets of required courses in their freshman and sophomore years: one each in science, history, and the humanities. The courses were designed to build the groundwork for responsible lives: they sought to help students form an integrated picture of civilization's issues and processes. (But they were not "surveys" —or what Philosophy Professor Gail Kennedy, chairman of the faculty committee that developed the program, calls "those superficial omnibus affairs.")

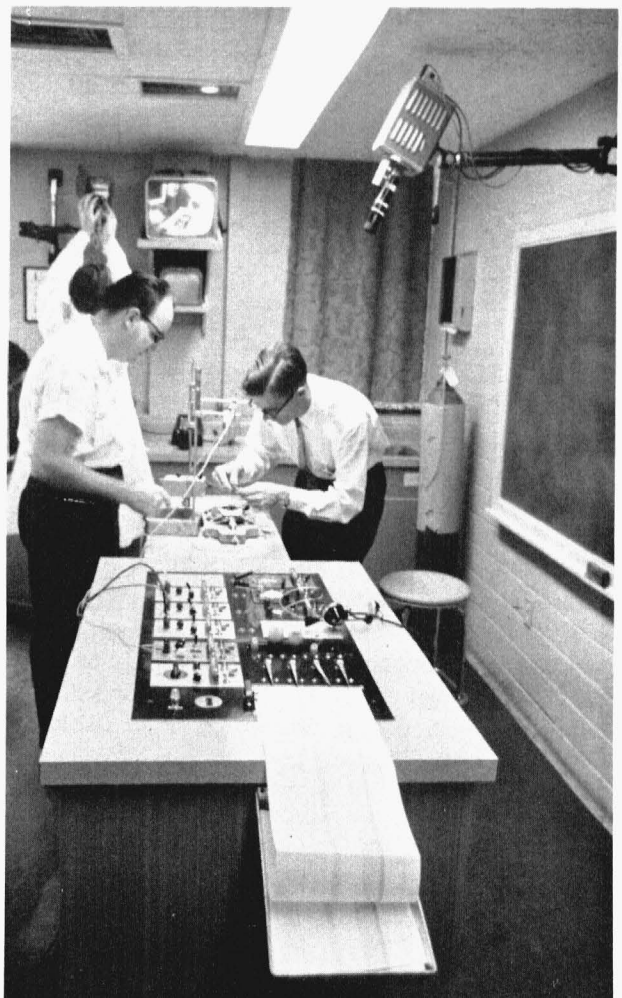
How did the student body react? Angrily. When Professor Arnold B. Arons first gave his course in physical science and mathematics, a wave of resentment arose. It culminated at a mid-year dance. The music stopped, conversations ceased, and the students observed a solemn, two-minute silence. They called it a "Hate Arons Silence."

But at the end of the year they gave the professor a standing ovation. He had been rough. He had not provided his students with pat answers. He had forced them to think, and it had been a shock at first. But as they got used to it, the students found that thinking, among all of life's experiences, can sometimes be the most exhilarating.

TO TEACH them to think: that is the problem. It is impossible, today, for any school, undergraduate or professional, to equip its students with all the knowledge they will need to become competent engineers, doctors, farmers, or business men. On the other hand, it can provide its students with a chance to discover something with which, on their own, they can live an extraordinary life: their ability to think.

THUS, in the midst of its planning for swollen enrollments, enlarged campuses, balanced budgets, and faculty-procurement crises, higher education gives deep thought to the effectiveness of its programs. When the swollen enrollments do come and the shortage of teachers does become acute, higher education hopes it can maintain its vitality.

BAYLOR UNIVERSITY



TO IMPROVE the effectiveness of their teaching, colleges and universities are experimenting with new techniques like recordings of plays (*above*) and television, which (*left*) can bring medical students a closeup view of delicate experiments.

HARVARD UNIVERSITY

To stretch teaching resources without sacrificing (and, perhaps, even improving) their effectiveness, it is exploring such new techniques as microfilms, movies, and television. At Rensselaer Polytechnic Institute, in Troy, New York, the exploration is unusually intense.

RPI calls its concerted study "Project Reward." How good, Project Reward asks, are movies, audio-visual aids, closed-circuit television? How can we set up really effective demonstrations in our science courses? How much more effective, if at all, is a small class than a big one? Which is better: lecture or discussion groups? Says Roland H. Trathen, associate head of Rensselaer's department of mechanics and a leader in the Project Reward enterprise, when he is asked about the future, "If creative contributions to teaching are recognized and rewarded in the same manner as creative contributions to research, we have nothing to fear."

The showman in a good professor comes to the fore when he is offered that new but dangerous tool of communication, television. Like many gadgets, television can be used merely to grind out more degree-holders, or—in the hands of imaginative, dedicated teachers—it can be a powerful instrument for improvement.

Experiments with television are going on all over the place. A man at the University of Oregon, this spring, can teach a course simultaneously on his own campus and three others in the state, thanks to an electronic link. Pennsylvania State experimented with the medium for three years and discovered that in some cases the TV students did better than their counterparts who saw their instructors in the flesh.

The dangers in assembly-line education are real. But with new knowledge about how people actually learn—and new devices to *help* them learn—interesting possibilities appear.

Even so, some institutions may cling to time-worn notions about teaching until they are torn loose by the current of the age. Others may adulterate the quality of their product by rushing into short-cut schemes. The reader can hope that his college, at least, will use the new tools wisely: with courage yet with caution. Most of all, he can hope that it will not be forced into adopting them in desperation, because of poverty or its inability to hold good teachers, but from a position of confidence and strength.

AMERICAN higher education does not limit itself to college campuses or the basic function of educating the young. It has assumed responsibility for direct, active, specific community service, also.

"Democracy's Growing Edge," the Teacher's College of the University of Nebraska calls one such service project. Its sponsors are convinced that one of the basic functions of local schools is to improve their communities, and they are working through the local boards of education in Nebraska towns to demonstrate it.

Consider Mullen (pop. 750), in northwest Nebraska's sandhills area, the only town in its cattle-ranching county. The nearest hospital is ninety miles away. Mullen needs its own clinic; one was started six years ago, only to bog down. Under the university's auspices, with Mullen's school board coordinating the project and the Teacher's College furnishing a full-time associate coordinator, the citizens went to work. Mullen now has its clinical facilities.

Or consider Syracuse, in the southeast corner of the state, a trading center for some three thousand persons. It is concerned about its future because its young people are migrating to neighboring Lincoln and Omaha; to hold them, Syracuse needs new industry and recreational facilities. Again, through the university's program, townspeople have taken action, voting for a power contract that will assure sufficient electricity to attract industry and provide opportunities for youth.

Many other institutions currently are offering a variety

of community projects—as many as seventy-eight at one state university this spring. Some samples:

The University of Dayton has tailored its research program to the needs of local industry and offers training programs for management. Ohio State has planted the nation's first poison plant garden to find out why some plants are poisonous to livestock when grown in some soils yet harmless in others. Northwestern's study of traffic problems has grown into a new transportation center. The University of Southern California encourages able high-school students to work in its scientific laboratories in the summer. Regis College runs a series of economics seminars for Boston professional women.

Community service takes the form of late-afternoon and evening colleges, also, which offer courses to school teachers and business men. Television is in the picture, too. Thousands of New Yorkers, for example, rise before dawn to catch New York University's "Sunrise Semester," a stiff and stimulating series of courses on WCBS-TV.

In California, San Bernardino Valley College has gone on radio. One night a week, members of more than seventy-five discussion groups gather in private homes and turn on their sets. For a half hour, they listen to a program such as "Great Men and Great Issues" or "The Ways of Mankind," a study of anthropology.

When the program is over (it is then 8:30), the living-room discussions start. People talk, argue, raise questions—and learn. One thousand of them are hard at it, all over the San Bernardino Valley area.

Then, at ten o'clock, they turn on the radio again. A panel of experts is on. Members of the discussion groups pick up their phones and ask questions about the night's topic. The panel gives its answers over the air.

Says one participant, "I learned that people who once seemed dull, uninteresting, and pedestrian had exciting things to say if I would keep my mouth shut and let them say it."

When it thinks of community services, American higher education does not limit itself to its own back yard.

Behind the new agricultural chemistry building at the University of the Philippines stand bare concrete columns which support nothing. The jungle has grown up around their bases. But you can still see the remains of buildings which once housed one of the most distinguished agricultural schools in the Far East, the university's College of Agriculture. When Filipinos returned to the campus after World War II, they found virtually nothing.

The needs of the Philippines' devastated lands for trained men were clear and immediate. The faculty began to put the broken pieces back together again, but it was plain that the rebuilding would take decades.

In 1952, Cornell University's New York State College of Agriculture formed a partnership with them. The objective: to help the Filipinos rebuild, not in a couple of generations, but in a few years. Twelve top faculty members from Cornell have spent a year or more as regular members of the staff. Filipinos have gone to New York to take part in programs there.

Now, Philippine agriculture has a new lease on life—and Filipinos say that the Cornell partnership should receive much of the credit. Farms are at last big enough to support their tenants. Weeds and insects are being brought under control. Grassland yields are up. And the college enrollment has leaped from little more than a hundred in 1945 to more than four thousand today.

In Peru, the North Carolina College of Agriculture and Engineering is helping to strengthen the country's agricultural research; North Carolina State College is

UNIVERSITY OF OKLAHOMA

IN ADDITION to teaching and conducting research, America's colleges and universities offer a wide range of community services. At the left are hundreds of curriculum materials available at one state university.

UNIVERSITY OF CALIFORNIA

NONE of its services can function effectively unless higher education remains free. Freedom to pursue knowledge is the strongest attraction of college and university teaching.

helping to develop Peruvian research in textiles; and the University of North Carolina co-operates in a program of technical assistance in sanitary engineering. In Liberia, Prairie View A. and M. College of Texas (the Negro college of the Texas A. and M. system) is working with the Booker Washington Agricultural and Industrial Institute to expand vocational education. Syracuse University is producing audio-visual aids for the Middle East, particularly Iran. The University of Tennessee is providing home-economics specialists to assist in training similar specialists in India. The University of Oregon is working with Nepal in establishing an educational system where none existed before (only eleven persons in the entire country of 8.5 million had had any professional training in education). Harvard is providing technical advice and assistance to Latin American countries in developing and maintaining nutrition programs.

THUS emerges a picture of American higher education, 1958. Its diversity, its hope that it can handle large numbers of students without losing sight of quality in the process, its willingness to extend its services far beyond its classrooms and even its home towns: all these things are true of America's colleges and universities today. They can be seen.

But not as visible, like a subsurface flaw in the earth's apparently solid crust, lie some facts that may alter the landscape considerably. Not enough young people, for instance, are currently working their way through the long process of preparation to become college and university teachers. Others, who had already embarked on faculty careers, are leaving the profession. Scholars and teachers are becoming one of the American economy's scarcest commodities.

Salary scales, as described earlier in this article, are largely responsible for the scarcity, but not entirely.

Three faculty members at the University of Oklahoma sat around a table not long ago and tried to explain why they are staying where they are. All are young. All are brilliant men who have turned down lucrative jobs in business or industry. All have been offered higher-paying posts at other universities.

EVERYWHERE—in business, government, the professions, the arts—college graduates are in demand. Thus society pays tribute to the college teacher. It relies upon him today as never before.

"It's the atmosphere, call it the teaching climate, that keeps me here," said one.

"Teachers want to know they are appreciated, that their ideas have a chance," said another. "I suppose you might say we like being a part of our institution, not members of a manpower pool."

"Oklahoma has made a real effort to provide an opportunity for our opinions to count," said the third. "Our advice may be asked on anything from hiring a new professor to suggesting salary increases."

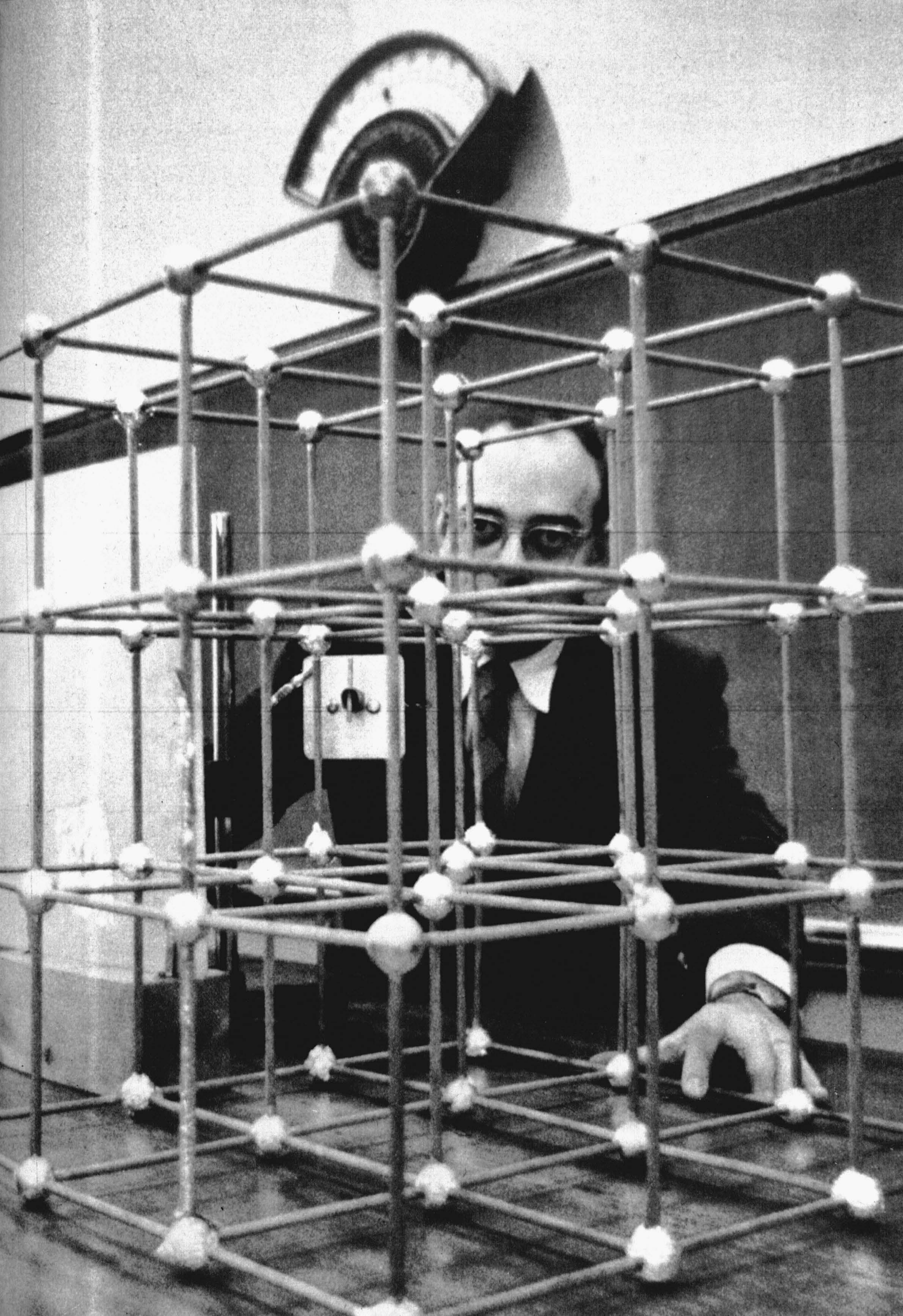
The University of Oklahoma, like many other institutions but *un*like many more, has a self-governing faculty. "The by-products of the university government," says Oklahoma's Professor Cortez A. M. Ewing, "may prove to be its most important feature. In spite of untoward conditions—heavy teaching loads, low salaries, and marginal physical and laboratory resources, to mention a few—the spirit of co-operation is exceeded only by the dedication of the faculty."

The professor worth his title *must* be free. He must be free to explore and probe and investigate. He must be free to pursue the truth, wherever the chase may take him. This, if the bread-and-butter necessities of salary scales can be met, is and will always be the great attraction of college and university teaching. We must take care that nothing be allowed to diminish it.

GONE is the old caricature of the absent-minded, impractical academician. The image of the college professor has changed, just as the image of the college boy and the college alumnus has changed. If fifty years ago a college graduate had to apologize for his education and even conceal it as he entered the business world, he does so no longer. Today society demands the educated man. Thus society gives its indirect respect to the man who taught him, and links a new reliance with that respect.

It is more than need which warrants this esteem and reliance. The professor is aware of his world and travels to its coldest, remotest corners to learn more about it. Nor does he overlook the pressing matters at the very edge of his campus. He takes part in the International Geophysical Year's study of the universe; he attacks the cancer in the human body and the human spirit; he nourishes the art of living more readily than the art of killing; he is the frontiersman everywhere. He builds and masters the most modern of tools from the cyclotron to the mechanical brain. He remembers the artist and the philosopher above the clamor of the machine.

The professor still has the color that his students recall,



and he still gets his applause in the spring at the end of an inspiring semester or at the end of a dedicated career. But today there is a difference. It is on him that the nation depends more than ever. On him the free world relies—just as the enslaved world does, too.

DR. SELMAN A. WAKSMAN of Rutgers was not interested in a specific, useful topic. Rather, he was fascinated by the organisms that live in a spadeful of dirt.

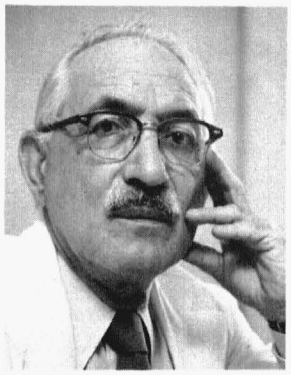
A Russian emigrant, born in a thatched house in Priluka, ninety miles from the civilization of Kiev, he came to the United States at the age of seventeen and enrolled in Rutgers. Early in his undergraduate career he became interested in the fundamental aspects of living systems. And, as a student of the College of Agriculture, he looked to the soil. For his senior project he dug a number of trenches on the college farm and took soil samples in order to count the different colonies of bacteria.

But when he examined the samples under his microscope, Waksman saw some strange colonies, different from either bacteria or fungi. One of his professors said they were only "higher bacteria." Another, however, identified them as little-known organisms usually called actinomyces.

Waksman was graduated in 1915. As a research assistant in soil bacteriology, he began working toward a master's degree. But he soon began to devote more and more time to soil fungi and the strange actinomyces. He was forever testing soils, isolating cultures, transferring cultures, examining cultures, weighing, analyzing.

Studying for his Ph.D. at the University of California, he made one finding that interested him particularly. Several groups of microbes appeared to live in harmony, while others fed on their fellows or otherwise inhibited their growth. In 1918 Waksman returned to Rutgers as a microbiologist, to continue his research and teaching.

RUTGERS UNIVERSITY



SOME research by faculty members strikes people as "pointless." It was one such pointless project that led Dr. Selman A. Waksman (*left*) to find streptomycin. Good basic research is a continuing need.

OHIO STATE UNIVERSITY

In 1923 one of his pupils, Rene Dubos, isolated tyrothricin and demonstrated that chemical substances from microbes found in the soil can kill disease-producing germs. In 1932 Waksman studied the fate of tuberculosis bacteria in the soil. In 1937 he published three papers on antagonistic relations among soil micro-organisms. He needed only a nudge to make him turn all his attention to what he was later to call "antibiotics."

The war provided that nudge. Waksman organized his laboratory staff for the campaign. He soon decided to focus on the organisms he had first met as an undergraduate almost thirty years before, the actinomyces. The first antibiotic substance to be isolated was called actinomycin, but it was so toxic that it could have no clinical application; other antibiotics turned out to be the same. It was not until the summer of 1943 that the breakthrough came.

One day a soil sample from a heavily manured field was brought into the laboratory. The workers processed it as they had processed thousands of others before. But this culture showed remarkable antagonism to disease-producing bacteria. It was a strain—*streptomyces griseus*—that Waksman had puzzled over as a student. Clinical tests proved its effectiveness against some forms of pneumonia, gonorrhea, dysentery, whooping cough, syphilis, and, most spectacularly, TB.

Streptomycin went into production quickly. Along with the many other antibiotics that came from the soil, it was labeled a "miracle drug." Waksman received the Nobel Prize and the heartfelt praise of millions throughout the world.

In a sense, discoveries like Dr. Waksman's are accidents; they are unplanned and unprogrammed. They emerge from scholarly activity which, judged by appearances or practical yardsticks, is aimless. But mankind has had enough experience with such accidents to have learned, by now, that "pure research"—the pursuit of knowledge for the sake of knowledge alone—is its best assurance that accidents will continue to happen. When Chicago's still-active Emeritus Professor Herman Schlesinger got curious about the chemical linkage in a rare and explosive gas called diobrane, he took the first steps toward the development of a new kind of jet and rocket fuel—accidentally. When scientists at Harvard worked on the fractionization of blood, they were accidentally making possible the development of a substitute for whole blood which was so desperately needed in World War II.

But what about the University of Texas's Humanities Research Center, set up to integrate experiments in linguistics, criticism, and other fields? Or the Missouri expedition to Cyprus which excavated an Early-Bronze-

To find the most promising young people of America and then provide them with exceptional educational opportunities: that is the challenge. Above, medical school professors vote on a candidate.

BAYLOR UNIVERSITY

Age site at Episkopi three years ago and is planning to go back again this year? Or the research on folk ballads at the University of Arkansas? In an age of ICBM's, what is the value of this work?

If there is more to human destiny than easing our toils or enriching our pocketbooks, then such work is important. Whatever adds to man's knowledge will inevitably add to his stature, as well. To make sure that higher education can keep providing the opportunities for such research is one of 1958 man's best guarantees that human life will not sink to meaninglessness.

ALFRED NORTH WHITEHEAD once said, "In the conditions of modern life, the rule is absolute: the race which does not value trained intelligence is doomed."

In recent months, the American people have begun to re-learn the truth of Whitehead's statement. For years the nation has taken trained intelligence for granted—or, worse, sometimes shown contempt for it, or denied the conditions under which trained intelligence might flourish. That millions are now recognizing the mistake—and recognizing it before it is too late—is fortunate.

Knowing how to solve the problem, however, and knowing how to provide the *means* for solution, is more difficult.

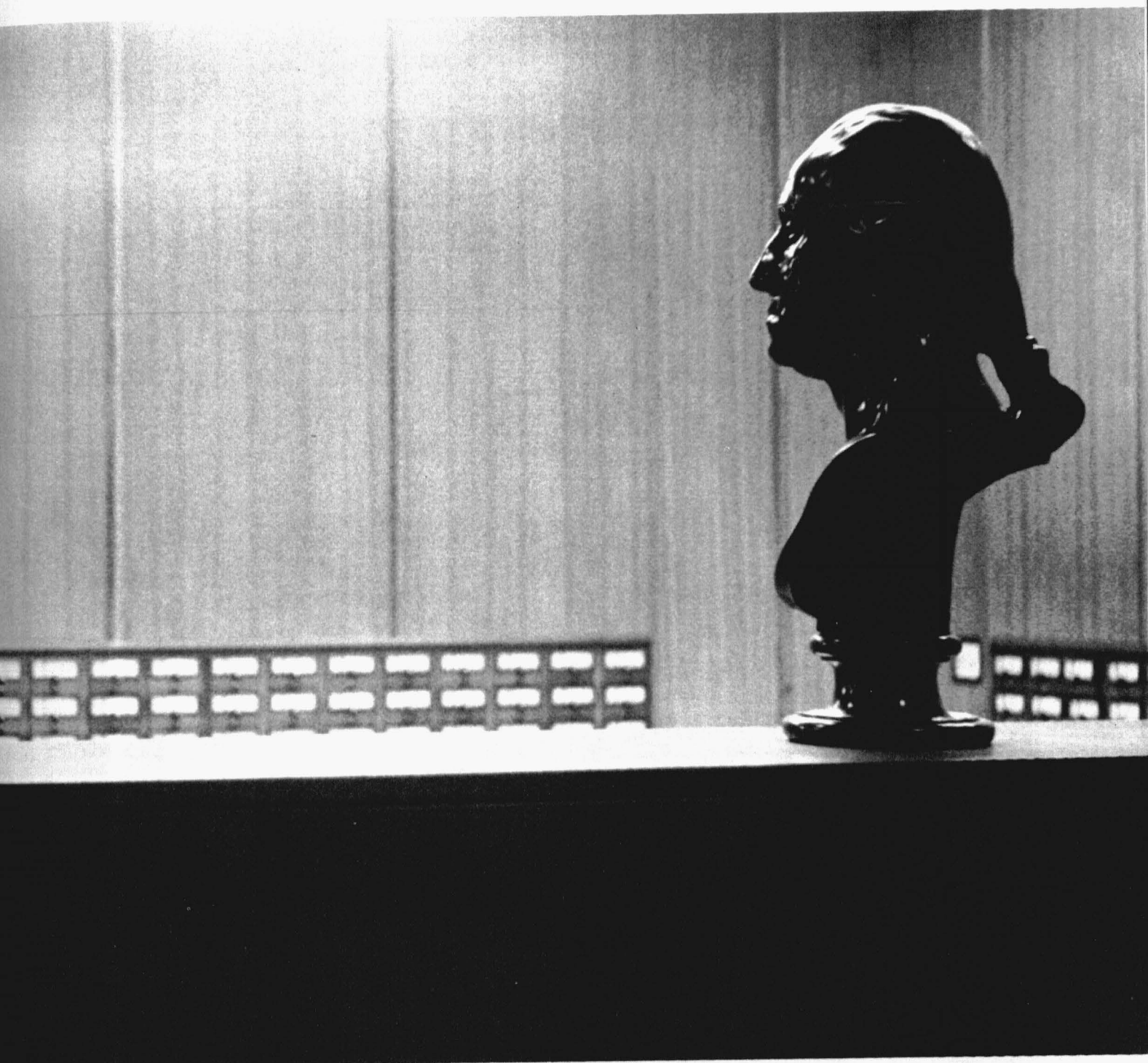
But again America is fortunate. There is, among us, a group who not only have been ahead of the general public in recognizing the problem but who also have the understanding and the power, *now*, to solve it. That group is the college alumni and alumnae.

Years ago Dr. Hu Shih, the scholar who was then Chinese ambassador to the United States, said America's greatest contribution to education was its revolutionary concept of the alumnus: its concept of the former student as an understanding, responsible partner and champion.

Today, this partner and champion of American higher education has an opportunity for service unparalleled in our history. He recognizes, better than anyone, the essential truth in the statement to which millions, finally, now subscribe: that upon higher education depends, in large part, our society's physical and intellectual survival. He recognizes, better than anyone else, the truth in the statement that the race can attain even loftier goals ahead, by strengthening our system of higher education in all its parts. As an alumnus—first by understanding, and then by exercising his leadership—he holds within his own grasp the means of doing so.

Rarely has one group in our society—indeed, every member of the group—had the opportunity and the ability for such high service.

EDUCATION of high quality for as many as are qualified for it has been a cherished American dream. Today we are too close to realizing that dream not to intensify our striving for it.



TULANE UNIVERSITY

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class notes

10 J. LEWIS P. SCOTT, BS CE, is a highway consultant and lives at 526 Forest Avenue, East Lansing, Mich.

Mrs. OPHELIA ROBINSON Shepard, AB, BS Ed. '13, retired on February 1 from her work as an agricultural home agent. For the past twelve and one-half years she has served in Platte County with headquarters at Platte City, Mo. Mrs. Shepard was given recognition by the Home Economics Council, the 4-H Clubs and other groups in appreciation of her service. She is returning to Columbia to make her home.

Mrs. MARY PAXTON KEELEY, BJ, AM '28, a former editor of The Missouri Alumnus, was featured in the Kansas City Star of March 2 in an article entitled, "Missouri History Told in Dolls." It tells the story of a collection made for 1939 World's Fair which is now being restored by Mrs. Keeley as a gift for her granddaughter, Linda Keeley, of Kansas City. Linda's collection of "Missouri Ladies" will be rare and valuable when the task of restoration is complete.

ALONZO V. BAYLEY, AB, is with the Northwestern Mutual Life Insurance Company with offices at 200 Chancery Building, 564 Market Street, San Francisco, California.

Mrs. Robert E. Bethel, who was AMALIA SCHMIDT, BS Ed., has retired from teaching, after many years in the schools of Ferguson, St. Louis County, Mo. She is now living at 2903 Park Place West, Cairo, Ill.

14 ORSON LEE, BS EE, is supervisor of typewriter sales for Rembrandt, Inc., of St. Louis. A pioneer in the sales of the first electric typewriter when it was introduced in that area in 1933, he is widely known in the typewriter industry. Mr. Lee resigned from Smith-Corona company to take over the DeJur-Triumph typewriter sales for Rembrandt.

D. D. MOSS, Jr., BS Agr, BS Ag.E '20 is a member of Moss Engineering Corporation, registered professional engineers, of 312 Standard Building in Fort Wayne, Ind. Mr. Moss lives at 1605 Cresent Ave., Fort Wayne.

16 ELMER C. HILL, who began work with the Post Office in Columbia in 1915 as a part-time worker at 25c per hour while a student, retired January 31 after more than 41 years of service. He served nearly two years in the Army in World War I and returned to a full-time job at the Post Office. He has lived at 815 West Broadway in Columbia since 1922, but early in March moved to Olathe, Colo., where he and Mrs. Hill will make their home on a ranch they have bought there. Their daughter, BEVERLY JANE, AB '49, is the wife of MARION PAUL MOURNING, BS Ch.E. '51, of Hattiesburg, Miss.

RAY E. WATSON, LLB, is a widely known lawyer of Jasper County, Mo., and a former circuit judge and prosecuting attorney. His home address is 220 W. Third St., Webb City, Mo.

24 J. C. WEBB, BS Agr., is now a training specialist for the U. S. Army at Camp Gary, Texas. For many years Mr. Webb was an instructor of vocational agriculture and for veterans in Missouri and Oklahoma. One son, Randy, is an aeronautical engineer and commercial pilot. Mr. Webb lives at San Marcos, Texas.

HARRY M. GRIFFITH, AB, is returning to Columbia to resume medical practice at 11 South Eighth Street. Dr. Griffith, who received a BS degree in medicine at the University of Kansas in 1928, practiced in Columbia 1946-51 and was Boone County coroner for three years. He is a former owner and operator of the Richmond, Mo., Hospital and more recently has practiced in Camdenton. Dr. and Mrs. Griffith are living at 404 West Blvd. South, Columbia.

27 O. PRICE MINNICK, BS Eng., has spent 30 years in various phases of engineering with the Southwestern Bell company in Kansas City and Topeka. He is now a senior transmission engineer and lives at 2007 Birchwood, Topeka, Kansas. Mr. Minnick sent us a nice letter of information concerning his family. His sons are SIDNEY A., BS EE '51, and OLEY P., Jr., BS EE '51. The daughter, GERTRUDE M. BROWN, BS Ed. '55, plans to enroll again at the University for graduate work, as her husband, FRED V. BROWN, AB '55, passed away in February, 1957. Mrs. Brown is teaching physical education at East High School in Kansas City.

REX GOAD, BJ, who joined NBC news in Washington in 1950, has been named manager of the National Broadcasting Company's news department. He is living in New York City.

28 ROBERT V. BAKER, BS & EE, is a relay engineer with Union Electric Company in St. Louis, Mo. Mr. and Mrs. Baker have a daughter, Sharon, who is in her second year at the University of Missouri, and a son, Brent, who is a junior in high school. The Baker home is 5414 Goethe Ave., St. Louis 9, Mo.

HENRY EVERETT BELDEN, BS BA, is vice president of Hanna Rubber Company in Kansas City, Mo. His residence is 11915 East 43rd St., Kansas City 33, Mo.

HARRY W. HOWZE, AB, recently was elected a vice president and manager of aviation sales by Esso Export Corporation, New York City. Mr. Howze had been president and director of Esso Standard (Near East), Inc. His address is 30 Rockefeller Plaza, New York 20, N. Y.

42 FLETCHER SIMS, Jr., AB, contractor, is owner and operator of the Timberib Building Distributors in Amarillo, Texas. His construction work there, with Timberib and Tim-Frame buildings, which is a new type of construction using laminated wood frames, has been chiefly in farm construction, but he plans to expand for commercial uses also. Mr. Sims, whose former home is near Auxvasse, Mo., was a scientist with the Fish and Game Wildlife Service stationed at Billings, Montana, until 1949 when he went to Amarillo. He began construction work in Montana eleven years ago. The story of his work in Amarillo, particularly the recent new building for Western Trailer Sales there, was featured recently in the Sunday Amarillo Globe. Mr. and Mrs. Sims and two sons, Stephen, 7, and Kevin, 4, live at 2024 Bonham, Amarillo.

46 Mrs. CORA ROUSSIN THOMING, BS Ed., a teacher for more than 40 years, retired on January 24 because of ill health and is living at St. Clair, Mo., her home town. Mrs. Thoming began her teaching career in the rural schools of Franklin County before she was 17 years old, and ended her career at the same grade school where she received her entire grade school education. Not all of her teaching was in Franklin County, as she had taught near Goodland, Kan., and near Hugo, Colo. She completed her high school work at the age of 36, and, continuing in summer sessions at the University, received her bachelor of science degree at 53. An event of interest in her life occurred in August, 1953, when a homecoming of her pupils was held at Meramec Caverns and recognition was given to her years of service. Upon retirement Mrs. Thoming was teaching her second term at Salem School and has taught at many school districts in the county, some on two or three occasions.

48 FRED "Duke" BENSLEY, AB, is a visiting teacher for the Kansas City, Mo., Board of Education and lives at 5824 Dearborn, Mission, Kan. Mr. and Mrs. Bensley have two children, Colleen, 6, and Mark, 5. Mr. Bensley says STAN MOULTON,

class notes

still single, is in the insurance business in Washington, D. C.

Mr. and Mrs. BILL HOWE, BJ, of 420 E. 2nd St., Shamrock, Texas, announced the birth of Mary Kathryn, on January 8. They have two other daughters, Carol and Claudia, and one son, Jack. Mr. Howe is advertising manager for the newspaper, Shamrock Texan.

ROY M. STUART, AB, is pastor of the Avondale Methodist Church in Kansas City, Mo. Mrs. Stuart, who was INEZ JENNINGS of Birmingham, Ala., assists Mr. Stuart in his work. They began work with churches in Montgomery County as students at the University, and his first full-time pastorate was the Maitland and Graham charge in Northwest Missouri from 1951 to 1954. They went to the Avondale assignment in 1954. Their children are Deborah Anne, 5, and Denise Michele, 3. Their home is the Methodist Church Parsonage at 3601 N. Bellefontaine, Kansas City.

Mrs. Leonard H. Lemon, who was BETH HARING, BS Ed., lives in West Chester, Pa., at 20 North Concord Road. Mr. Lemon is a sales engineer for the Bastian-Blessing Company of Chicago, Ill. Their three children are Sherry Beth, 7½, Douglas, 4½, and Laurie Ann, born October 25, 1957.

LESLIE J. SWOPE, BS Agr., received a master's degree from the School of Commerce and Business Administration at the University of Alabama in August, 1957.

Mr. and Mrs. JERRY THOMASSON, BS Agr., of Chehalis, Washington, announced the birth of a daughter, Tamara, on January 27. Mr. Thomasson, former Columbian, is a timber cruiser for Weyerhauser Lumber Company and their address is RFD 1, Box 130, Chehalis.

49

LOUISE LITTLE Henderson, AB, with the U. S. Air Force, is now located at Nouasseur Air Base, about 20 miles from Casa Blanca, Morocco. She has recently finished six years of service at Burtonwood AFB in England, arriving in Morocco on December 28. The address there is Hq. SAMAE, Procurement—Box D, APO 30, New York, N. Y.

WALTER METCALF, BSF, is district ranger with the U. S. Forestry Service at Sundance, Wyoming. Mr. and Mrs. Metcalf have two sons and live at Sundance.

WILLIAM B. STYLES, BJ, member of the editorial staff of the *Cincinnati Post*, recently was appointed business editor of that newspaper. His home address is 4428 Blue Rock Rd., Cincinnati 39, O.

50

CHARLES ELDON DRENNAN, BJ, has been called as associate pastor of the First Christian Church and as Director of the Christian Student congregation in Columbia, Mo., effective July 1. Rev. Drennan is now director of religious education for the Central Christian Church of Marshalltown, Iowa, and will complete his requirements for a bachelor of divinity degree at Drake University School of Divinity in June. He is a native of Kirksville, Mo. Mr. and Mrs. Drennan and three children will live at 113 Garth Avenue in Columbia.

GEORGE B. ADKINS, BS, AM '51, is chief of the mathematical statistics branch of the Atomic Energy Commission which recently moved to their new headquarters in Germantown, Md. Mr. Adkins has been honored by a cash award from the Navy for work done on naval research, and has recently been accepted for membership in the American Association for the Advancement of Science. His home is at 1111 Arlington Blvd., Arlington, Va.

ARNOLD ALPERSTEIN, LLB, is deputy district attorney for Jefferson County, Colorado. Mrs. Alperstein is the former PEARL G. GREENLOT, BJ '47. Their home is 8825 Cole Drive, Arvada, Colo.

DAVID L. G. JACOBS, AM, is a lecturer in the Traffic Institute of Northwestern University. He has recently moved from Evanston, Ill., to 5109 Main St., Skokie, Ill.

J. G. ROTRAMEL, AB, formerly of Kansas City, has been transferred to Columbus, Ohio, as farm chemicals sales representative for Monsanto Chemical Company's Organic Chemicals Division, after serving as sales representative for Monsanto's farm chemicals in Missouri, Kansas, Arkansas and Oklahoma.

Bill Styles, '49

ROBERT F. STOCKHAUSEN, BS BA, is district manager for Anheuser-Busch, Inc., in South and West Texas. His address is Apt. 5, 131 Pinecrest Blvd., San Antonio 9, Tex.

WILLIAM W. CUNNINGHAM, BJ, returned in December from a four months "shoestring" tour of Europe, where he visited 13 countries. He is now publications writer for Hallmark Cards, Inc., in Kansas City. His address is 119 North Kensington, Kansas City, Mo.

51

Mrs. James Akers of Lakewood, Colo., the former LOIS JEAN WEAVER, BS BA, of Louisiana, Mo., on February 1 was announced on television as the winner of an $84,000 prize in a contest conducted by an electric razor company. Her prize is in the form of common share of stock in American industry. Mr. and Mrs. Akers live at 7420 W. 12th Ave., Lakewood.

The Dow Chemical Company announced the addition to their Midland, Mich., staff of technical personnel of CARL G. HEIDBREDER, BS Eng. Mr. Heidbreder is in the sales training department.

RUSSELL WOERHEIDE, BS CE, BS BA '56, and Mrs. Woerheide announced the birth of a daughter, Susan, shortly before Christmas last year. Their home is 5936 Pershing in St. Louis, Mo.

ROBERT ADAMS, BS BA, lives at 4004 Palm, St. Louis, Mo. He was married last July to Miss Judy Lackey.

KENNETH THIELE, BS BA, lives at 7461½ N. Verdugo Road, Glendale, Calif.

52

ROBERT E. CAMPBELL, BJ, is real estate editor of the Daily Oklahoman, Oklahoma City. Mr. Campbell represented the University at the inauguration of Jack S. Wilkes, the president of Oklahoma City University, on March 6, 1958. His address is 3413 N.W. 24.

Mrs. Ralph D. Garrison, who is the former ANTHRET BRITE, BS Ed., teaches second grade in the Wildwood School of Monett, Mo. She received the Master of Education degree at Fayetteville, Arkansas, in January.

EVERETT HANCOCK, BS Ed., ordained Baptist minister and native of Sedalia, Mo., is a minister of music at the Carpenter Street Baptist Church in Moberly, Mo. For a number of years Mr. Hancock has been director of the

Missouri Baptist Student Center Choir, and is director of the Chapel Choir, at 1101 University in Columbia. He is also an agent for Jenkins Music Company at 919 E. Broadway. Mr. and Mrs. Hancock live at 1205 Paris Road, Columbia, Mo.

JAMES R. HOLT, BS BA, who started in the shoe business at 13 in his father's store in Maryville, Mo., owns and operates Holts Shoes, Inc., at 24 S. Ninth in Columbia, Mo. Mr. Holt opened this store last October, and also owns part interest in shoe stores in Bethany and Trenton, Mo., and in Fall City, Neb. Mr. and Mrs. Holt live at 1135 West Worley Street.

PAUL E. WILLIAMS, AB, LLB '53, and Mrs. Williams, who was HARRIETT ROLLINS, AB '47, announced the birth of a son on December 17, 1957. The Williams' have two daughters, Nita Sue, 3½, and Mary Lou, 2. They are living in Pike County at Bowling Green, Mo., where Mr. Williams is a practicing lawyer and prosecuting attorney of Pike County.

53 LARRY WOODS, LLB, is associated with the law offices of Alexander, Welliver and Wayland in Columbia, Mo. He joined the firm in 1956, shortly after leaving the Air Force, where he was stationed at San Marcos, Texas, and was on the staff of the judge advocate. Mr. and Mrs. Woods and two daughters, Leslie Lynn, 3, and Lisa Elaine, 2, live at 206 Pinewood Drive in Columbia.

ROY F. TALBERT, BS Agr., has been transferred by the Borden Ice Cream Company from Canton, Ohio, to Indianapolis, Ind., with a promotion to laboratory manager. Mrs. Talbert, who was VIRGINIA MAE SCISM, AB, is continuity writer for WIRE radio, N.B.C., in Indianapolis. Their address there is 3136 North Bolton Ave.

MARGARET SHEPPARD, BJ, is with the United Press bureau in Jefferson City, Mo., and has been reporting the special session of the State Legislature, as well as other news for the Jefferson City, Rolla and the central Missouri areas. Miss Sheppard had been employed on the Jefferson City News-Tribune, the Richmond, Mo., News Leader and the Pontiac, Ill., Daily Leader. Born in Doniphan, Mo., she has lived in Jefferson City, where her father, Maj. Gen. A. D. SHEPPARD, '20, is adjutant general of Missouri. Miss Sheppard's mother is the former MARVINE CAMPBELL, BJ '19. A brother, Maj. A. D. SHEPPARD, Jr., '42, lives at 114 South Rolla St., Rolla, Mo.

PERRY McCANDLESS, Ph.D., associate professor of history at Central Missouri State College in Warrensburg, is included in the new edition of the Directory of American Scholars. This directory recognizes workers in philosophy, history, literature and the languages and related fields. Dr. McCandless was graduated from Central State in 1941 and received an AM at Southern Methodist University. He joined the staff of Central State in 1948, was on leave for three years while completing his doctorate work from 1950 to 1953, and returned to the faculty there. His writings have appeared in many historical publications. A native of Lincoln, Mo., he served in the Air Corps from 1941 to 1945. Dr. and Mrs. McCandless and two children, Richard Lee, 3, and Anne Christine, 1 year, live at 604 Broad Street in Warrensburg, Mo.

54 MORTON S. LINDNER, BJ, is public information officer in the VII Corps Artillery, Seventh Army, in Stuttgart, Germany. Lt. Lindner, of 348 Second Ave., Long Branch, N. J., entered the Army in August, 1954, and arrived overseas in April, 1955. His address is A Btry, 74th FABn, APO 751, New York, N. Y.

BILL M. CARNELL, BSF, is district forester of the Neosho forest fire protection district of the Missouri Conservation Commission. Mr. Carnell's home is at Pineville, Mo.

55 MARION LOUISE ALBRECHT, BS Ed., taught school for two years before entering Western Reserve University in Cleveland, Ohio, where she is working for a masters degree in Library Science. Miss Albrecht's home address is 4320 Schirmer St., St. Louis 16, Mo.

LEONARD J. LEA, AM, is public relations director for the Church of Jesus Christ of Latter-day Saints in Independence, Mo. Mr. and Mrs. Lea live at 722 Procter Place, Independence.

JOEL J. GOLD, AB, recently joined the Lederle Laboratories Division of the American Cyanamid Company as a sales representative in Detroit. Mr. and Mrs. Gold live at 22923 Allen Court, St. Clair Shores, Michigan.

M. A. SNELL, DVM, in February moved to Maryville to take over the practice of Dr. J. B. Cheshire, retiring veterinarian there. He has been located in Anita, Iowa. Dr. and Mrs. Snell and daughter are living at 210 W. 3rd St. in Maryville, where he has his home and his office.

COLLETT R. WILSON, BS CE, has been assigned as a sales engineer to The Trane Company sales office in Newark, New Jersey.

DORIS ATHY, AB, is librarian of the Mexico, Mo., and Audrain County Library. In addition to handling the work of the Mexico Library, she has charge of the Vandalia Library and of the Bookmobile which covers Audrain County. Miss Athy went to Mexico in June, 1955, as assistant librarian and soon became head librarian. She lives at the Ben Bolt Motel, Apartment 349, in Mexico.

WILLIAM J. DOYLE, BS ChE, has joined the technical services department of Monsanto Chemical Company's Organic Chemicals Division at St. Louis.

56 EDMUND B. WELSHANS, Jr., BS BA, is a member of the VII Corps Artillery and is a supply clerk in Headquarters Battery. Pvt. Welshans received basic training at Fort Leonard Wood, Mo., and went overseas in April, 1957, following an assignment at Fort Monmouth, N. J. His home address is 6645 Oleatha Ave., St. Louis, Mo.

RICHARD A. OESTERLE, BS BA, is teaching an Armed Forces Institute class in mathematics at the Seoul Area Command Education Center in Korea. PFC Oesterle is a clerk in the 304th Signal Battalion's Headquarters Company. His home address is 424 Grandview Dr., Edwardsville, Ill.

57 Mr. and Mrs. Tom Seawell announced the birth of a son, James Bradford, on February 28 in St. Louis, Mo. Mrs. Seawell is the former EVA JOE BRADFORD, BS Nur., of 1117 Ash St., Columbia.

JO ANN ALLEN, former Columbian, transferred to the College of St. Teresa in Kansas City last fall, where she enrolled in the three-year nursing course. She was capped recently at St. Joseph's Hospital Chapel there. Miss Allen's home is on Vandiver Drive, Columbia.

G. T. BARROWS, DVM, and CLIFTON HODGES, DVM, have taken over the practice of Dr. Eldon F. Hayes at 620 North Rollins in Macon, Mo. Dr. Barrows, formerly of Trenton, Mo., worked in Macon with Dr. Hayes last summer. Dr. Hodges is a native of Perry, Mo. Both doctors were recently discharged from military service, and both are making their homes in Macon.

ROBERT G. SHOWERS, AB, is a salesman for Allton Automobile Company in Columbia, Mo. Mr. and Mrs. Showers and son live at 511 Hardin in Columbia.

GARLAND D. LINDSEY, DVM, is associated in general practice with Dr. M. D. CONRAD, DVM '50, in Plattsburg, Mo. Prior to going to Plattsburg

last October, Dr. Lindsey was located in Little Rock, Ark., in small animal practice.

JAMES R. THORNTON, BJ, in the U. S. Army, is doing public information in Hawaii. Entering the Army in September, he took basic training at Ft. Chaffee, Ark., and was then assigned to PIO at Schofield Barracks on the island of Oahu in the Hawaiian Islands. Pvt. Thornton expects to complete Army duty in September, '59, but for the present his mailing address is HQ, USARH AW/25th Inf. Div. (PIO) APO 957, San Francisco, Calif

DOUGLAS R. ADAIR, BS BA, of Odessa, Mo., is now stationed in Germany as a member of the 802d Field Artillery Battalion. Pvt. Adair, a fire direction control specialist in the battalion's Headquarters Battery, entered the Army last August and completed basic training at Fort Chaffee, Ark.

THOMAS L. EDWARDS, of Lemay, Mo., is a graves registration specialist in the 565th Quartermaster Graves Registration Company in Mainz, Germany. Pvt. Edwards entered the Army in August 1957, completed basic training at Fort Gordon, Ga., and arrived overseas in January, 1958. His home address is 521 Walworth Drive in Lemay.

MELVYN L. LEFKOWITZ, BS BA, completed the final phase of six months active duty training under the Reserves Forces Act program Jan. 28 at Fort Benjamin Harrison, Ind., and is scheduled to spend the remainder of his military service with the 405th Finance Disbursing Section in St. Louis. Pvt. and Mrs. Lefkowitz live at 7241 Kingsbury, University City, Mo.

JOHN E. COOK, BS BA, has been assigned to the 285th Field Artillery Battalion at Fort Bragg, N. C. Entering the Army last June, he received basic training at Fort Chaffee, Ark. His home address is 1127 Polk St., Chillicothe, Mo.

LOUIS E. COTTLE, BS BA, of Moscow Mills, Mo., is an executive officer in Mortar Battery of the 1st Division's 2d Infantry at Fort Riley, Kan. Lt. Cottle entered the Army in August 1957, and was stationed at Fort Sill, Okla. Lt. and Mrs. Cottle live in Junction City, Kansas.

LOUIS LEE LOWRY, BS ME, is now stationed in Korea near Munsan. Lt. Lowry, formerly of Mercer, Mo., sends his address as 05502619, E. Btry, 2nd How. Bn. 8th Arty, APO 7, San Francisco, Calif.

ROGER WILCOXSON, BS Agr., is 4-H Agent for Bates County, Mo., with his headquarters at Butler. He has worked as an assistant agricultural agent for Jackson County. Mr. and Mrs. Wilcoxson and daughter, Terri, are living at 502 West Vine Street in Butler.

RICHARD A. STUBER, BS EE, has completed a microwave course at Fort Monmouth, N. J., and has been sent to Karlsruhe, Germany. Mrs. Stuber, formerly MARTHA THOMAS of Columbia, Mo., has gone to join him there.

2nd. Lt. JOHN N. KENDRICK, BS Agr., early in February reported to Lackland Air Force Base, San Antonio, Texas, where he entered navigator's training in jet aircraft. He is a native of Hermann, Mo., and had been employed in livestock marketing research work.

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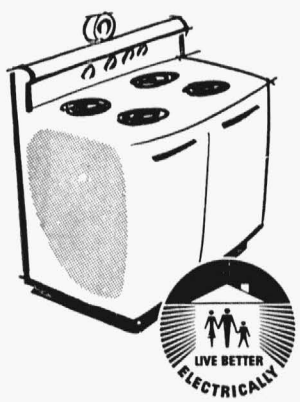

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deaths

KIMBROUGH STONE, AM, BL '95, LLD '28, former presiding judge of the Eighth United States Court of Appeals, on February 27 following a heart attack at his home in Kansas City. Judge Stone resigned from the bench in 1947, after 31 years of service. After his retirement he was given special assignments for a number of years. Born in Nevada, Mo., he had been a resident of Jackson County since about 1900. His father was a governor of Missouri and later a United States senator. Another ancestor, Thomas Stone of Maryland, helped to draw the Articles of Confederation and was a signer of the Declaration of Independence. Judge Stone opened a law office in St. Louis in 1898 with the firm of the late Frank Hagerman. He moved to Kansas City soon after marrying Miss Lucy Cockrill of Platte County. In 1913 he was elected judge of the Independence division of the Circuit Court and in 1916 was appointed by President Wilson to the appellate court. He is survived by Mrs. Stone, of the home at 235 Ward Parkway; and two daughters, Mrs. Samuel E. Otto of Germany and Mrs. Albert E. Bassett, Toronto, Canada.

CHARLES HERBERT GRAVES, LLB '97, on September 13, 1957, following a brief illness. Born in Nevada, Mo., Mr. Graves moved to Seattle, Wash., soon after beginning his career as an attorney, and was still engaged in practice at the time of his death. Mrs. Graves is the former Emily Harding, also of Nevada, who survives at their home at 1406 E. 63rd St., Seattle. A son, Harding Graves of Seattle, also survives.

OAK HUNTER, '99, former president of the Alumni Association and long-time supporter of its programs and interests, on March 15 in Moberly, Mo. Mr. Hunter was a former state representative and a practicing attorney of Moberly for more than fifty years. As a student at the University, he played right guard with the Tigers of 1898 and '99. He began his law career with Swift and Company in Kansas City, but soon returned to Moberly. There he became city attorney, prosecuting attorney, and in 1918 was elected to the Missouri state legislature. Mr. Hunter has served as governor of this Rotary district; as a senior vice-president and on the board of governors of the Missouri Automobile Club; a member of the County Highway Commission, the board of governors of the Missouri Bar Association and on the athletic advisory committee of the University. After working closely with the late Robert E. Lee Hill for nearly a quarter of a century, Mr. Hunter became president of the Alumni Association of the University in 1944 and served three years in this capacity. His feeling of responsibility to the University seems to be summed up in a quotation from his page in a past issue of the *Alumnus*: "Each and everyone of us must play his part, knowing full well that if we do our work well the results will be far beyond our expectations . . . We have a lot to do." He was a past president of the University's "M" Men's Club. Other activities include the Masonic lodge and civic organizations. Surviving are Mrs. Hunter and a daughter, Miss MARJORIE HUNTER, AB '32, of 144½ Tannehill, Moberly, Mo.

WALTER W. STEWART, AB '09, LLD '32, who had served as an economic adviser to four presidents, on March 6 in New York City, following a heart attack. Dr. Stewart served presidents Coolidge, Hoover, Roosevelt and Eisenhower, being a member of President Eisenhower's three-man Council of Economic Advisers. Born in Manhattan, Kan., he became a professor of economics at the University, at the University of Michigan, at Amherst College and at Princeton, N. J. For many years he worked with the Federal Reserve Board in Washington, D. C. Dr. Stewart, who lived at 6 Springdale Road in Princeton, N. J., is survived by two sons and a daughter.

HOMER E. McNATT, BS Agr. '09, former agriculture teacher and a farmer of the Warsaw, Mo., community, on February 26 following an operation in Kansas City. Mr. McNatt formerly was an assistant professor of the University of Utah Agricultural Department, of the University of Illinois Agricultural College, and was in charge of the Dairy Department of Western Washington State Experimental Station for three years. In 1920 he returned to a farm near Clinton, Mo., living there until 1947, when he and Mrs. McNatt moved to Warsaw. Mr. McNatt taught vocational agriculture and science in the Aurora school system, and recently he had been an instructor in the veteran's program. Surviving are Mrs. McNatt of the home, and three children. They are ROBERT McNATT of Annapolis, Md.; Airman First Class FRANK McNATT of Whiteman Air Base, and ANN McNATT BOOZE, BJ '43, of 254 Flamingo Road, Mill Valley, Calif. Her husband, RALPH BOOZE, is a journalism graduate of '46.

Mrs. Morris S. Michael, who was formerly RUBY FOWLKES, AB '10, was found dead of a heart attack on February 7, 1957, in her apartment in Los Angeles, Calif.

JOHN M. HENRY, '11 on January 11 at Richardson, Texas. Mr. Henry began work with the Y.M.C.A. in 1911 and served for 38 years, the last 13 years as general secretary of the Dallas, Y.M.C.A. He retired in 1949. Mrs. Henry, who survives, is the former SYLVIA MAGILL, '13. Their two sons are Dr. David Henry of Dallas and Col. Stephen W. Henry of the Air Command in Alaska. The Richardson address is P. O. Box 635.

EUGENE L. PRESTON, '11, editor and publisher of the Liberty, Mo., Tribune and Advance, on February 22 in Kansas City. He was born in Fort Scott, Kan., but had moved as a youth to Nevada, Mo., and attended school there. His family owned and published the Nevada Mail and consecutively published the Marshall Democrat-News, the Moberly Index, the Boonville Advertiser and the Norborne Democrat. Mr. Preston began his newspaper career in Marshall and became editor of the Liberty Tribune in 1943. In 1951 Mr. Preston and his newspaper were recognized with an award of merit from the American Association of State and Local History for that paper's contributions to local history. He was an active member of the Kansas City Press Club, as well as other professional groups. Surviving are Mrs. Preston, of the home, 600 College, Liberty, Mo.; a son, William E. Preston of Washington; and a daughter, Mrs. Margaret Alice Marr, Jackson County.

WILLIAM S. THOMPSON, AB '10, LLB '13, of Princeton, Mo., on February 28 of a heart attack. He had served as prosecuting attorney of Mercer County for 25 years before his retirement in 1946 and was a lifelong resident of Princeton. His wife, Mrs. Doris Thompson, is the Princeton correspondent for the Kansas City Star.

CHARLES C. TOOMEY, Eng. '14, president of the Toomey Oil Company of Tulsa, on November 15, 1957, following a heart attack. Mr. Toomey, born and reared in Kansas City, was a varsity track and baseball player as a student. He was also a member of the glee club and other musical groups. He began his work as a bridge engineer, was with the engineering department of Carter Oil Company, the geological departments of Carter Oil and of Skelly Oil Company, and in 1928 joined the Midco Oil Corporation of Tulsa as vice president and general manager. He became president of Midco in 1930 and when that company dissolved in 1952, he organized Toomey Oil Co. Among his civic interests were the YMCA and the Kiwanis Club. Mrs. Toomey, of the home at 2412 S. St. Louis Avenue in Tulsa, survives. There are also two daughters, Mrs. Clayton M. Harrell of Houston, Texas, and Mrs. Davis B. Blue Jr., of Tulsa. He also leaves three grandchildren, a sister and three brothers.

CLARK V. SINGLETON, BS Agr. '15, teacher and farmer of Maysville, Mo., on February 11 at his home. Mr. Singleton had been a member of the faculty at Northwest Missouri State College in Maryville and on the faculties of the Universities of Idaho and Wyoming. He was affiliated with state and U. S. government agricultural agencies and after his retirement he had been farming and teaching vocational agriculture. He is survived by Mrs. Singleton of Maysville; two daughters, Mrs. Fred Smith of Sunland, Calif., and Mrs. Max D. Kim of Milwaukee, Wis.; three grandchildren, and a brother, O. V. Singleton, of Columbia.

Mrs. Eric Englund of Washington, D. C., who was the former AMY JANE LEAZENBY, BS Ed. '17, of Mt. Moriah, Mo., on January 24 while visiting a sister in Berea, Ky. Dr. Englund is an economist for the Department of Agriculture and he and Mrs. Englund returned late in 1957 from London, England, where he was agriculture attache at the American Embassy. Dr. Englund planned to retire January 31 and they had planned to return to their farm at Sandy Springs, Md. Mrs. Englund, of a pioneer Missouri family, held a master's degree from the University of Chicago and was head of the department of household economics at Kansas State College in Manhattan before her marriage. Her two sisters who survive are Miss Gladys F. Leazenby of Berea, Ky., and Miss Dessie R. Leazenby, Farmington, Mo.

A. J. (Pete) RENNER, '17, a farm and rural club leader of the New Madrid-Sikeston area for many years, suddenly on February 4 in Sikeston, Mo. He had been suffering from a heart ailment for the past year. Mr. Renner's service to agriculture included serving as Agricultural Agent of Scott County, as a representative of the Real Estate Division of the Federal Land Bank of St. Louis, and since 1942, as public relations officer of the Scott County Milling Company. He was a promoter of the 4-H Club Foundation and was a member of its board of directors. He was also active with Corn and Wheat Clubs and the Missouri State Seed Show activities. He leaves his wife, of New Madrid, Mo., and a son, Ed Dan Renner, of Sikeston.

FRANK OGLESBY YOUNG, '19, of Alton, Mo., on February 17, 1957 unexpectedly of a heart attack. Mrs. Young and two sons, of the home in Alton, survive, also another son, J. C. Young of Glasgow, Mo.

ARTHUR F. BARNES, BS Eng. '21, chief engineer for the R. B. Potashnick Construction Company of Cape Girardeau, Mo., on February 26 of a heart attack. Born in Pattonsburg, Mo., Mr. Barnes, a lieutenant colonel, served in the Corps of Engineers in both the Atlantic and Pacific theaters. After service he returned to engineering and in 1954 moved to Cape Girardeau with this firm. Mrs. Barnes, who was Miss Edna Harmon of Pattonsburg, survives at their home at 701 E. Rodney Drive.

W. PHILIP COTTON, BJ '23, Columbia lumberman, on March 13 of a heart attack. Mr. Cotton, co-owner with his brother, W. COOPER COTTON, AB '24, of the Cotton Lumber Company, was also a director of the Boone National Savings and Loan Association and was a former director of the Columbia Chamber of Commerce. He was an ardent supporter of the University's intercollegiate athletic program and had played on the Columbia Inter-City golf team for 30 years. Mrs. Cotton, who was Miss Frances Harrington of Kansas City, survives at their home at 204 South Glenwood Avenue in Columbia. Their son, W. Philip Cotton, Jr., is an architectural student at Harvard University. Their daughter, Barbara, is Mrs. FRANK TULL III, of Laguna Beach, Calif. Lt. Tull, AB '51, BS Med.'53, is a flight surgeon with the U. S. Marine Corps at El Toro.

FLORIEN P. GASS, AB '23, director of research for Doremus and Company, advertising and public relations concern, on February 18 at his home of a heart attack. Mr. Gass, a native of Kansas City, from 1924 to 1927, attended Oxford University as a Rhodes Scholar, returning to the University as an instructor of English. He then did graduate work at Harvard and entered press relations work in New York with the Mandeville Press Bureau. Later he became director of public relations of the Glass Container Association of America, joining Doremus in 1945. Four years ago Mr. Gass became blind, but continued to commute regularly to his office in New York. Mrs. Gass and a son, Peter F. Gass, survive at their home at 14 Ingraham Lane, Hempstead, New York.

VIVIAN RUTH FEIST, AB '27, on January 14, 1958. Her home in Kansas City was 20 West 36th St.

Mrs. LETTIE RODMAN Hecker, BS Ed. '30, who had lived at 7323 Forsyth in Clayton, Mo., on December 17, 1958.

GEORGE E. PHELPS, LLB '32, lawyer and former Missouri legislator, on March 15 of a heart ailment. Mr. Phelps had served two terms as state representative from Jasper County, and had long been prominent in political and community activities there. Mrs. Phelps, who was the former ELIZABETH OKEEFE, AB '31, of 1601 Grand Avenue in Carthage, survives. There are also two sons; George Phelps, Jr., a student at Rice Institute, and John O. Phelps, a student at Harvard.

ALBERT FREDERICK MUTTI, Jr., BS BA '32, owner of Mutti Motors Company in Hopkins, Mo., on February 10, 1958, following a long illness. "Fritz" had been ill with lateral sclerosis since 1955. Mr. Mutti became head of the Mutti Motors Company, Ford dealers, 22 years ago and had been an active leader in business and community fields. Mrs. Mutti, a son and a daughter survive. Mr. Mutti was a life member of the Alumni Association.

FLORA JOANNA HOLTMAN, BJ '45, AM '49, assistant professor of journalism at the University, of a heart attack at her home in Columbia on March 15. Born in Perryville, Mo., Miss Holtman was assistant office manager and bookkeeper for the Absorene Manufacturing Company in St. Louis from 1926 to 1943. After receiving her journalism degree at the University, she was a reporter and feature writer on the Mankato, Minn., Free Press for two years. She joined the faculty of the School of Journalism in 1947, and has been active in student, campus and professional organizations. In October she was elected president of the Missouri Women's Press Club, and edited the club's page in the Missouri Press News. Miss Holtman was active in the American Association of University Women, and last year was president of University Journalism Women. She was adviser of the Gamma chapter of Theta Sigma Phi, honorary professional journalism fraternity for women, and secretary of the campus chapter of Kappa Tau Alpha, national scholastic journalism fraternity, and a member of Phi Sigma Iota, national honorary romance language society. She is survived by her mother, Mrs. William Holtman, of St. Louis, and four sisters.

EDWARD KUHR, BS Agr.'52, former manager of the Kroger Super Market in Sedalia, Mo., was killed instantly on March 6 in a car-truck collision near Lucas, Iowa. Mr. Kuhr, native of St. Louis, had lived in Sedalia nearly two years. Mrs. Kuhr and a daughter, born March 4, survive, also his mother, a brother and a sister.

CAROL WHEELER, sophomore in the College of Arts and Science, was killed March 7 when her car went out of control south of Columbia, Mo. Miss Wheeler, daughter of Mr. and Mrs. Hubert Wheeler of Jefferson City, was returning to Columbia after a trip home pertaining to her plans as a contestant in a "Miss Jefferson City" beauty pageant. She had also been selected as a mistress of ceremony for the Savitar Frolics. Her parents, of 1525 Greenberry Road in Jefferson City, and a sister, Georgeann, 3½, survive.

page thirty-six

It really isn't page thirty-six, of course. Inside back cover is more like it. The mix-up is caused by the 32-page special report on American Higher Education, which makes up most of this issue. The temporary shift in position reminds us that the title "page thirty-six" may have to be abandoned next year. The reason: The *Alumnus* is scheduled to become a forty-four page magazine. Our customary spot then would become "page forty," which sounds less glamorous somehow. Maybe we'll call it "the back forty." To hold on to the current title, the page would have to fall amidst the Class Notes, which is all right except that we would be ill at ease among all those people. You begin to see the immensity of the problem. We like it back here. More privacy. Unheralded, at the fag end, this department is discovered only by those persistent readers who hunger for enlightenment and wander far in quest of it. They're an elite group, discriminating, of deep intellectual curiosity. Them's the best kind.

In view of the new emphasis on higher education, we hesitate to mention this incident. Recently, during Engineers Week, two of the ancient Columns were splattered with green paint. For the next several days University workmen had their hands full trying to restore the smeared pillars to their natural appearance, with moderate success. The Columns are the symbolic trademark of the University; they are rich in tradition and known the world over. But they are weather-beaten and crumbling. Time and the elements are taking their toll; abuse by pranksters is nothing but thoughtless vandalism. The Columns are not identified with any single division of the University; they represent the entire University. Defacement of the Columns is not a joke on any one school or college; it is a senseless attack on the University.

This must be the time of year when many universities make their pitch to lure outstanding teaching talent from other campi. It is the season when we begin to hear that this professor or that one has been offered an enticing deal that will remove him from Missouri. Rumor has it that one of our most respected professors, after a quarter of a century here, is leaving to join the faculty of a famous university in the east. Other rumors are that several valuable men on the University faculty are wrestling with juicy offers from other schools. The situation lends backing to the familiar philosophy, "them as has, gits." One of our department heads has facetiously suggested that our professors should be barred from authoring a book. His theory is that a successful publication sets well-heeled institutions on the trail of the author as a desirable faculty addition. But you can't keep a good professor under wraps. Better strategy: better salaries.

Our well-appointed Memorial Student Union provides a variety of ways to get your hands dry. Gadgets for this purpose have come and gone at the Union for years, being installed on a test basis as requested by manufacturers. There have been some dillies. Best remembered was an old-fashioned cloth roller towel, reminiscent of boarding house days; but it wasn't around long. We are familiar with the methods now available in the men's washrooms on three floors. In the basement quarters you may press a button to touch off an air blower (rub hands rapidly, prevents chapping) or you may withdraw a folded square of paper toweling from a metal container above the wash basin; the latter device is also standard equipment on the top floor. Neither gadget presents a challenge to the well-adjusted student or faculty member. However, in the main floor washroom there's another problem. This is a temperamental dispenser attached to the wall; the guest feels his way along a thin opening underneath, grips the edge of the paper and pulls downward. Thereupon the machine releases a modest square of toweling, then the thing locks. This one square is enough to dry one hand, but not two. The guest, water dripping from his hands, must wait approximately five seconds until he hears a clicking sound; then he can pull the paper downward again for a second square. It is in this five-second interval that the student's character is put to a test. If his second tug follows the first too quickly, he learns that he is dealing with an unyielding foe; the extra square of paper will not come down, no matter how strong the pull, until the magic click. To some students, five seconds is a torturous waste of time, especially when their hands are all wet. The impatient ones react violently, pounding the machine futilely with their free hand, while jerking and shredding the paper with the other. Such treatment often throws the timing mechanism out of whack, and the dispenser is likely to make the guest wait ten seconds, rather than five. Obviously, some students are no match for a machine with a hesitation complex. On the other hand, others have shown refreshing ingenuity. We have seen them pull down one portion of paper towel, utilize the waiting period by washing their hands, then draw out the second square and calmly dry their hands. Others get around the five-second pause, and thus achieve peace of mind, by simultaneously pulling one square each from the two machines (they are side by side), either before or after washing. This resourcefulness is all to the good; it bolsters one's faith in our future leaders. We propose that this cantankerous contraption be retained so that the student may know in advance something of the problems he must face in life beyond the classroom. We like to think that our boys will go forth qualified to cope with all the hand drying devices in the washrooms of the world. J.C.T.

YESTERDAY it wasn't there. Today, he picks it up and wonders: *why did it grow like that?* The miracle of growth! Whether it's a "toadstool" that springs up overnight or a cancer cell that suddenly comes into being, we've a lot to learn about the whole beautiful process of orderly growth . . . and the dreadful, senseless growth that is cancer.

The cancer puzzle is tied up in growth —growth of body cells smaller than the periods on this page.

Scientists, working under grants from the American Cancer Society, are ceaselessly studying cells—normal and cancer cells. And they too are asking: *Why?*

Why do cells suddenly change from normal growth to uncontrolled, disorderly growth? This question can be answered only by the most probing, painstaking and costly research.

Your contributions to the American Cancer Society will support hundreds of scientific studies necessary to save lives today and tomorrow.

Remember: Cancer can strike anyone. But you can strike back *hard* with your dollars. Send your gift to CANCER in care of your local post office.

AMERICAN CANCER SOCIETY