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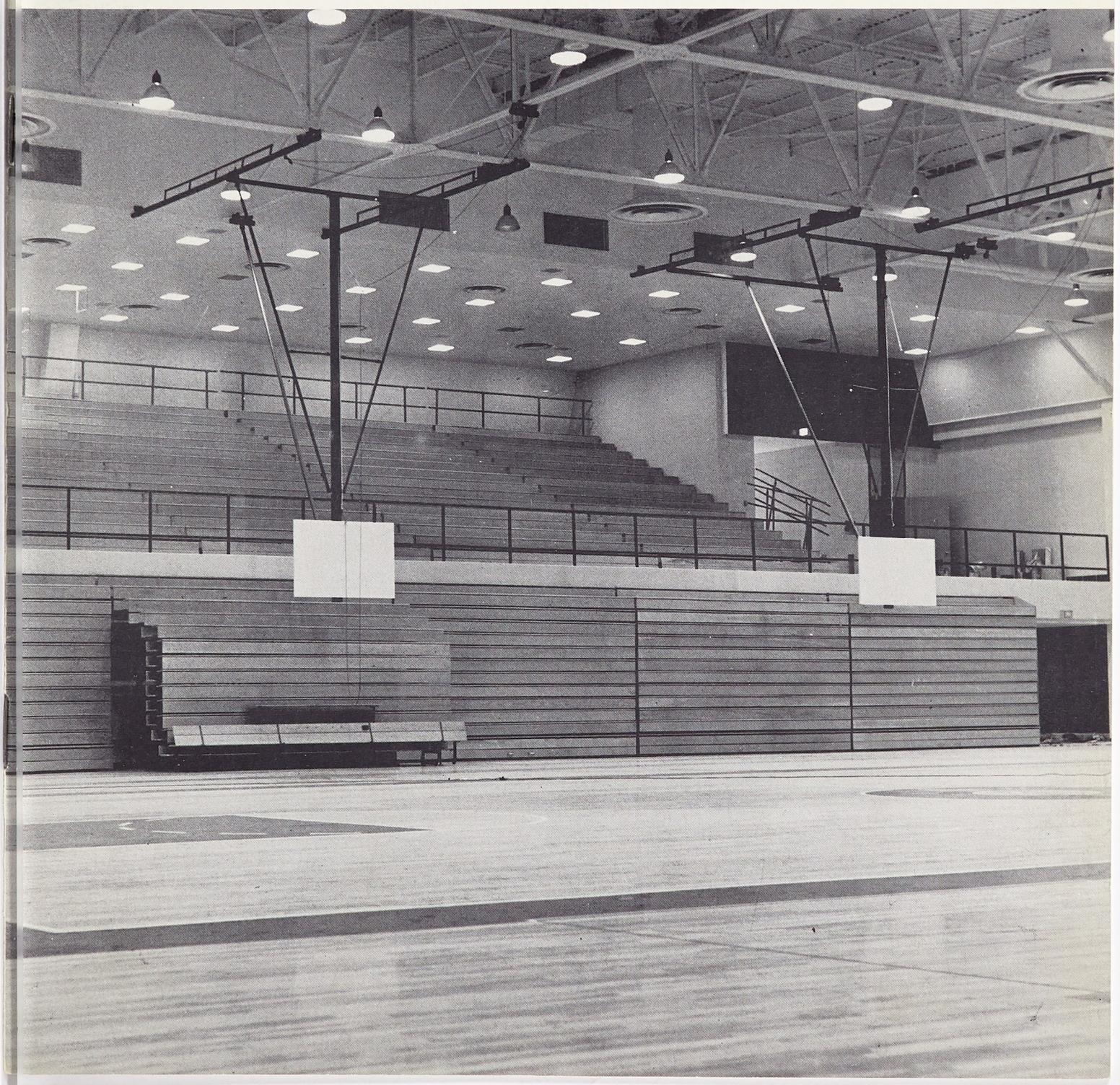
Miner Alumni Association

February 1969

msm Alumnus

UNIVERSITY OF MISSOURI - ROLLA



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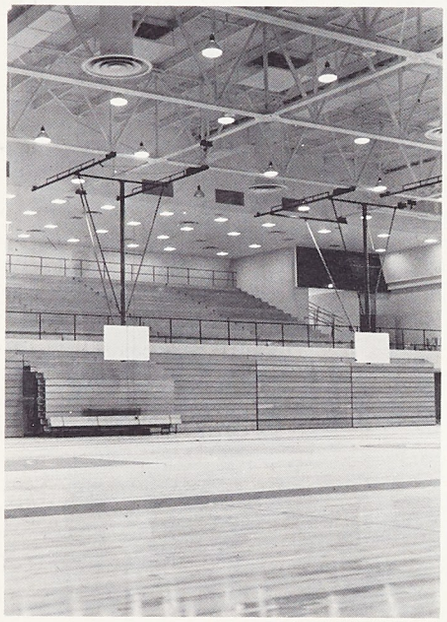


An interior view of UMR's new Multi-Purpose Building. Such a facility has been absent from the campus for three years. The accommodations provided by this new building have been needed for many years to meet the requirements of the expanded enrollment.

Issued bi-monthly in the interest of the graduates and former students of the Missouri School of Mines and Metallurgy and the University of Missouri - Rolla. Subscription price, $1.50, included in Alumni Dues. Entered as second class matter October 27, 1926, at Post Office at Rolla, Missouri, under the Act of March 3, 1897.

Graduates Urged to "Make Things Happen"

Monte C. Throdahl, Vice President-Technology, of the Monsanto Company, told UMR students, at the convocation, January 19, that they, as graduates, will be judged on their ability to make things happen.

Throdahl spoke to some 300 students who were honored at the ceremony for having completed requirements for degrees at the end of the semester. He said that the great test for graduates of technologically oriented universities such as UMR is for them to perceive the needs of the world and then use their resources to meet these needs.

"A true visionary is one who conceives a solution to a problem, evaluates its risks and uncertainties and then commits himself knowingly to its solution," he said.

Throdahl also said that he is encouraged by the students' concern for the really important questions of the world – questions of human equality, of equal opportunity for food, jobs and shelter, of the need for peace and a suitable standard of living for all. "But," he told them, "there is a big difference between complaining about a situation and actually doing something about it. I personally hope that many of you will produce, that you will make a significant contribution."

Throdahl called science and technology a tool which must be used to help solve the needs of society. "We at Monsanto, as well as other similarly large corporations, have come to realize that we must look for new ways of satisfying basic human needs like shelter, food, transportation and clothing," he said. He told the graduates that they too can contribute. "'Plan your work, then work your plan,'" he added.

Throdahl is also a member of the Monsanto Comapny Board of Directors and Corporate Development Committee, a member of the board of directors of Monsanto Research Corporation (a subsidiary of the Monsanto Company) and is a vice president and member of the board of directors of the Chems trand Research Corporation.

He is a member of the board of Central Midwestern Regional Educational Laboratory, Inc., and a member of the executive committee and board of directors of Webster College.

UMR Ranks 7th Nationally in B.S. Degrees

UMR is ranked seventh among the nation's accredited engineering schools in the total number of bachelor's degree granted last year, and the first in two fields, civil engineering and mechanical engineering.

UMR's standing was determined from statistics in "Engineering Degrees 1967-68" recently published by the Engineering Manpower Commission of the Engineers Joint Council. Of 285 institutions covered by the report, a total of 187 have one or more curricula accredited by the Engineers' Council for Professional Development (ECPD), accrediting agency for engineering curricula.

The Rolla campus, which specializes in engineering and science education, continued in first place in undergraduate engineering degrees among universities west of the Mississippi River. UMR has been among the top ten undergraduate engineering schools in the entire nation for many years.

UMR also rated high nationally in the number of B.S. degrees granted in individual fields. Besides first in civil engineering and mechanical engineering, rankings are as follows: materials engineering (which includes metallurgical and ceramic engineering), fourth, mining and geological engineering, seventh; electrical engineering, eighth; petroleum engineering, tied for tenth place, and chemical engineering, tied for 18th.

In total engineering master's degrees

granted, UMR was tied for 20th place. Several departments were among those in the country granting the most degrees. These included: mining engineering, fourth; materials engineering (metallurgical and ceramic), seventh; civil engineering, tied for eighth with the University of Southern California; chemical engineering, tied for 11th with USC.

The survey showed an increase in degrees granted at accredited institutions at all levels. For the 1967-68 academic year a total of 32,916 bachelor's degrees, 14,819 master's degrees and 2,906 doctor's degrees were awarded. The largest rate of increase (26.8 percent in the past two years) was at the doctor's level, with a 10.1 percent increase in master's degrees and 3.5 percent increase in B.S. degrees. All engineering curricula, except electrical engineering and agricultural engineering, showed increases. Including non-accredited institutions, total degrees reported in the survey were 38,002 bachelor's, 15,152 master's and 2,933 doctor's degrees.

The ten accredited institutions awarding the most bachelor's degrees in engineering were: Purdue University, 760; Georgia Institute of Technology, 717; University of Illinois, 709; Pennsylvania State University, 631; Newark College of Engineering, 591; University of Michigan, 589, UNIVERSITY OF MISSOURI – ROLLA, 584; University of Minnesota, 575; Northeastern University, 524; North Carolina State University at Raleigh, 520.

UMR was one of only four institutions in the top ten showing an increase in degrees granted as compared with the last previous survey, which was for the 1965-66 academic year.

BECOME A

MEMBER OF THE

CENTURY CLUB

Gifts for Student Center Near Half-Million

Over $430,000 has been contributed to the University Center Fund by alumni, and friends of the Rolla Campus.

The amount needed to assure construction is $2 million, half of the projected cost of about $4 million for the basic facility and a planned 1500 seat theater-type auditorium.

The amount has been committed by 233 alumni, faculty, corporations and friends. Commitments have ranged from $1 to $100,000. The average gift has been $1,842.24.

In addition, Rolla students have reserved $118,628.66 of their Student Union fees toward the construction of the new University Center.

The two funds total $548,842.84, or slightly over twenty-five percent of the private funds needed, as of February 15.

Bob E. Sutton, Director of the Centennial Challenge Program, advises that a concerted effort is now under way among select alumni to assure completion of the fund's requirements during 1969. "We may not have all $2 million commited, but we are confident that able alumni will have committed enough to allow solid final design and construction planning," he declared.

The campus hopes to have the actual building well under way or completed by the 1970-71 academic year.

Starting Salaries Climb to New Highs

Students completing bachelor's degree requirements at the end of the first semester at UMR are getting job offers at salaries higher than the national average.

According to Leon Hershkowitz, assistant dean of placement at UMR, the National Salary Survey of the College Placement Council (January 1969 edition) reveals that in almost every field which applied to UMR graduates, UMR students are being offered starting salaries above the national average. "And, the UMR starting salary offer at the bachelor's level of $832 per month, is $45 higher than the average starting salary of UMR graduates last May," he said. Those who complete master's degree work in January are starting in jobs at an average of $975 per month – M.S. recipients in May 1968 averaged $918 a month. There were no Ph.D. figures in January, although Dean Hershkowitz predicts that Ph.D. graduates in May will be offered starting salaries of around $1,350 per month.

The national survey showed only jobs at the bachelor's degree level and these jobs, in most cases, represent industrial positions. Examples taken from different career categories in the survey reveal several UMR highs. For instance, in eight areas of chemical engineering jobs, UMR students are drawing higher salaries than the national average. For those in the automotive and mechanical equipment areas of chemical engineering, UMR salaries are averaging $905 per month while the average starting salary across the country is $826 per month. In the chemicals and drugs category of chemical engineering, UMR students are averaging $864 while the national average is $834.

In civil engineering careers the field revealing the most difference between UMR student starting salaries and national starting salaries is the utilities branch. UMR students begin at $816 a month and nationally the average is $772 a month. Another area of civil engineering, the chemicals and drugs area, find UMR graduates averaging $849 and nationally the average is $823. In electrical engineering, in the aerospace field, the beginning is $810 compared with $797 nationwide. In the metals and metals products field they average $840 compared with $798 nationally.

In eleven areas of mechanical engi-

neering careers, UMR starting offers beat the national average. The most significant were in electronics, UMR $915, nationwide $819. In construction, UMR $883, nationally $806. In the automotive field, UMR $820 against $805 national average.

Differences in metallurgical engineering, in the automotive field, UMR $851, nationally $775. UMR chemists are averaging $850, nationally $769. Science majors entering the electronics field are averaging $828 as UMR graduates, the national average is $783.

The highest offer to a B.S. degree graduate was given to a mechanical engineer, $1,000 a month. This was followed by offers of $975 to a chemist, $930 to another mechanical engineer, $915 to a chemical engineer and $900 to an electrical engineer.

The average starting salary offers to UMR students who completed their degree work in January for the bachelor of science were as follows: mechanical engineering, $821; civil engineering, $800; chemical engineering, $857; electrical engineering, $821; petroleum engineering, $857; engineering management, $822; metallurgical engineering, $820; physics, $828; chemistry, $844, and computer science, $850.

The remaining areas will be represented in the May 1969 commencement figures.

Seven Alumni Chosen "Outstanding Young Men"

A total of seven alumni including three who are professors at UMR, have been selected as Outstanding Young Men of America.

Honored are: Dr. Albert E. Bolon '61, assistant professor of metallurgical and nuclear engineering; Jerry R. Bayless '59, assistant professor of civil engineering; Jerry L. Gilmore '60, instructor in engineering mechanics; Robert D. Eberle '57, of the Boeing Company; Richard Bay Heagler '57, director of research, Granco Products; Donald E. Henderson '59, Armco Steel Corporation, Metal Products Division, and George R. Baumgartner '56, product development engineer with the Ford Motor Company.

Outstanding Young Men of America is an annual biographical compilation featuring the accomplishments of about 5,000 young men of outstanding rank throughout the country. Nominations for the awards publication are made by Jaycee chapters, college alumni associations and military commandants. Criteria for selection include a man's service to others, professional excellence, business achievement, charitable activities and civic and professional recognition.

Outstanding Young Men of America is sponsored by the non-profit Outstanding Americans Foundation.

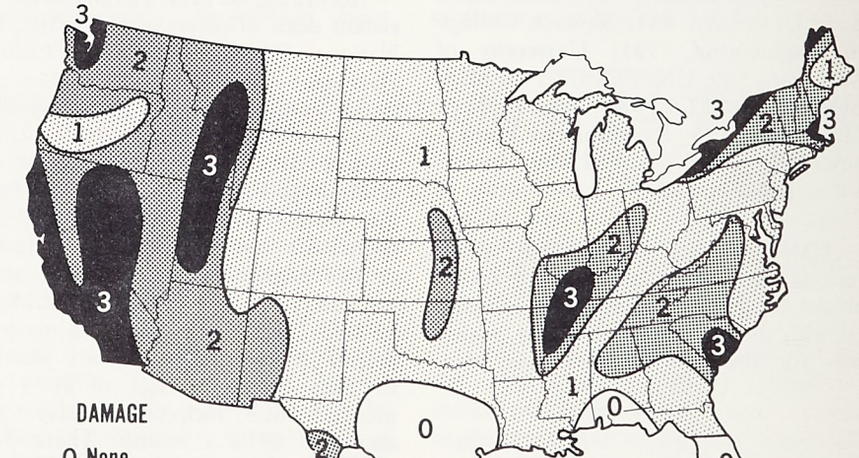
President Richard M. Nixon has said of the publication, "OUTSTANDING YOUNG MEN OF AMERICA presents a most fitting testimonial not only to the success of many of our young people, but also to their awareness of the debt which they owe our free society."

New Map Shows Areas Most Liable to Quakes

Dr. S. T. Algermissen '53, of the Coast and Geodetic Survey, an agency of the Environmental Science Services Administration in the Department of Commerce, headed a group of research geophysicists who have developed a seismic risk map, the first since 1952. The map shows the areas of the conterminous United States most vulnerable to earthquakes. In addition the map also shows what types of damage could be expected in the various areas delineated on the map.

The conterminous United States is divided into four zones; areas where there is thought to be no reasonable expectancy of earthquake damage; areas of expected minor damage; areas where moderate damage could be expected; and areas where major destructive earthquakes may occur.

The zones are based principally on the known distribution of damaging earthquakes, their intensities (observed effects of earthquakes), and geological considerations. The zones were de-

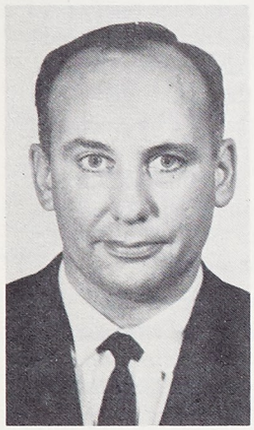


Seismic risk map for conterminous U.S., developed by ESSA/Coast and Geodetic Survey and issued in January 1969. Subject to revision as continuing research warrants, it is an updated edition of the map first published in 1948 and revised in 1951. The map divides the U. S. into four zones: Zone 0, areas with no reasonable expectancy of earthquake damage; Zone 1, expected minor damage; Zone 2, expected moderate damage; and Zone 3, where major destructive earthquakes may occur.

lineated after a two-year study of 28,000 earthquakes in the conterminous United States, including 16,000 in California.

Algermissen emphasized that the map is subject to continual revision as new research developments occur. "Our objective has been to determine where earthquakes may be expected to occur in the reasonable future, their frequency, and the potential damage they will cause," said the ESSA scientist.

The frequency with which damaging earthquakes may occur is not included on the map. The Risk Map shows only the nature of the earthquake risk over a very long time span. However, in a paper which accompanies the map presented at the Santiago (Chile) conference, Algermissen



Dr. S. T. Algermissen

has included tables which give a general idea of the frequency of damaging earthquakes across the United States. For example, portions of California and Missouri are both rated in Zone 3 on the map, but the probable frequency of occurrence of large, damaging earthquakes in certain parts of California is much greater than in Missouri.

"The continuing studies of earthquakes risk by the Coast and Geodetic Survey," he continued, "will probably provide guidelines for building codes governing earthquake-resistant construction. Since earthquakes can neither be predicted at the present time nor prevented, the best deterrent against earthquake damage and resultant loss of life is earthquake-resistant construction."

Algermissen said general risk prediction has three main objectives; (1) providing information which may be used to reestablish, or update, design criteria for earthquake-resistive structures, such as buildings, dams and bridges (2) Providing information useful in planning land use on a very broad scale (3) Constructing a "seismotectonic" map. This involves establishing the variation of earthquake occurrences in the U.S., based on both historical accounts of earthquakes and earth movements that have left visible traces in the form of geologic faults and other topographic changes.

Dr. Algermissen said that if structures in a populated area survive a strong earthquake, there will probably be very little injury and loss of life. Therefore, he added, a major objective of earthquake investigations in this country is to design structures that will sustain great damage during earthquakes.

California, well known for its earthquakes, is not alone in its vulnerability to earth tremors. Strong tremors may also occur in the St. Lawrence region which sustained major shocks in 1663 and 1925; in Charleston, S.C., where a damaging shock in 1886 killed 60 people; and New Madrid, Mo., where a great earthquake occurred in December 1911 and January and February 1812.

Ohio Engineers Honor R. W. Schneider

Robert W. Schneider '57, was the recipient of the "Young Engineer's Award for 1968" presented by the Ohio Society of Professional Engineers. The annual award is given to one young engineer each year for outstanding professional performance, civic participation, technical ability and personal characteristics.

Mr. Schneider achieved statewide recognition as chairman of the highly successful "Seven Engineering Wonders of Ohio" program. He currently is publicity chairman of the Camp Muskingum Committee and has appeared as a speaker at the Lima, Maumee and Lake Erie Chapters and at the 1967 PEI Conference at Lima.

He is a sales engineer for the Metal Products Division of Armco Steel Corporation at Sylvania, Ohio, entering employment with Armco in 1960. In addition to sales, his present responsibilities include providing product engineering and performance data to consulting engineers, owners and contractors.

Robert A. Schneider

He was named Jaycee of the month and Jaycee of the year while active in Sharonville, Ohio Jaycees. He was Jaycee state director in 1964. Other civic activities include Monroe State Methodist Church, Toledo Power Squadron and Toledo Area Chamber of Commerce. His technical affiliations are: American Society of Civil Engineers, American Water Works Association and the Toledo Area Technical, Scientific and Educational Foundation.

HAVE YOU MADE

YOUR CONTRIBUTION

TO THE

1969 ALUMNI FUND?

Engineer or Humanitarian?

By B. R. Sarchet*

The story of man's conquest of nature and the responsibilities to which he has fallen heir concerns man's discoveries and inventions rather than his political achievements. It is a story of engineering rather than political science. As our knowledge of what we now call applied science increased, our control of nature was strengthened. Every discovery and invention added to our knowledge; as did every experiment and observation.

Man's scientific knowledge was constantly edited, each generation picking up the torch from the preceding generation. A fact or technique often lay unused for years and might even have seemed to be forgotten, but the memory of it remained a part of the growing heritage. The growth of our body of scientific knowledge was steady but slow throughout early history. Nevertheless, the tremendous acceleration of achievement during modern times owes its debt to the earlier pathfinders.

Engineering Consumer Oriented

An example of this is engineering. For the thousands of years of recorded history prior to the 19th Century, engineering as an applied science was divided into two principal groups, civil and military. This is no longer true and today we have many disciplines of engineering, some having achieved their total history within the past two decades. And engineering today, instead of being oriented to the civil or military, has become consumer oriented.

It is probably this last change that has contributed most to our growth in this century. The field of advertising and the various media associated with it has provided the impetus. American industry is controlled by its ability to market. Therefore, talent and money have gone into the development of marketing techniques. By this mere shift of effort, people have been brought to the point where they feel a need for things they never previously thought they could need. This in turn has fueled the plants, bought new equipment, increased production, made new jobs, and the cycle has been repeated over and over and over.

Growth in the 20th Century has been at a fantastic rate. It is stated that 90 percent of all the scientists and engineers who ever lived are now alive. Pushed forward by World War II and resultant massive research expenditures, we have seen air transportation move from the speed of 200 mph or 2,000 mph. We have seen communications, handled with difficulty over a few thousands of miles, now handled with ease over many millions of miles in space. We have seen man, who only reached a distance of a few tens of thousands of feet above the earth a few years ago, now having circled the moon. And yet when one of the astronauts was asked during the return flight from the moon, "Who is flying the space craft now?" he responded "Sir Isaac Newton, as much as anyone." He indicated what we have noted – discoveries, inventions, and applications build on one another. Without the fundamental work of scientists building on knowledge gained decade after decade, engineers could not bring forward technological successes of today.

No one would deny that the scientist and engineer have been the prime movers in these developments. But as he has done this, his responsibilities have increased. No longer is he the man making a discovery in a laboratory and trying to make something useful of it in a very local application. Instead, he is a man who is having worldwide influence either by his research and development prowess or through his managerial ability. This is pointed out clearly in a recent book entitled "The American Challenge" by Servan-Schreiber, a Frenchman:

> "God is clearly democratic. He distributes brain power universally. But He quite justifiably expects us to do something efficient and constructive with that priceless gift. This is what management is all about. Management is, in the end, the most creative of all the arts – for its medium is human talent itself!"

Corporations of today are so technically oriented that by 1980 more than 50 percent of them will be headed by men with engineering educations. The bulk of the lower echelon decision-making and supervisory jobs will also be in their hands. This means that by then the impact of the corporation on society will literally be in the hands of engineers. It further means that the course of the world will lie completly within their hands. From the same book, let us look at the present influence of the American engineers and managers on the world:

> "All by themselves the Americans consume a third of the total world production of energy, and have one third of all the world's highways. Half the passenger miles flown every year are by American airlines. Two trucks of every five on the road are American-made and American-based. Americans own three out of every five automobiles in the world.

U. S. Production Highest

> "Advanced technology and management skills have raised per capita production in the United States to a level 40 percent above that of Sweden (next highest), 60 percent above Germany, 70 percent above France, and 80 percent above Britain. The driving force behind this power is American business. The combined profits of the ten biggest firms in France, Britain, and Germany (30 in all) are $2 billion. The profits of General Motors alone are $2.25 billion. To equal the profits of General Motors you would have to add the ten leading Japanese firms to the European total. These 40 firms employ 3.5 million people, while General Motors employ 730,000 – or about a fifth."

Are our engineers prepared for this? Are they fully aware of the influence that they will have on the future? Do they have adequate understanding of this power that is being placed in

* Associate Professor and Chairman of the Department of Engineering Administration at UMR.

their hands? An engineer in the brief four years that he has in school must concentrate most of his time on technical matters. Little humanities and social science are in his curriculum. This is being recognized by corporations and they are turning their attention to men who have been able to broaden their outlook upon management and society through graduate work. Also, corporations have been for a number of years sending men to special advanced management courses to bring about a greater understanding of their role in society today.

To meet this growing need, the University of Missouri – Rolla has set up undergraduate and graduate degree programs within the new Department of Engineering Management. In these programs, we try to satisfy two needs: A course of study for student interested in employment within technically-based industries but not an engineering degree, as such, and a program which broadens the perspective of the technically-trained man and prepares him to better understand the social and economic complexities of today's society.

The high success achieved by these new degree programs among both students and industry tends to underline and document the importance of management knowledge coupled with technical knowledge for the most efficient utilization of technology. UMR is uniquely qualified to serve the student and industry in this manner with outstanding technical departments, a rapidly growing division of Humanities and Social Sciences and this new department of Engineering Management to draw together these various disciplines.

Frank Abrams, retired Board Chairman of Standard Oil of New Jersey, says "the job of the professional managers is to conduct the affairs of the enterprise in his charge in such a way as to maintain an equitable and workable balance among the claims of the various directly interested groups – stockholders, employees, customers, and the public at large." To do this, the businessman must develop an awareness that every decision of his life in the business world involves moral as well as financial considerations.

Thus it would seem that the solution of the poverty and educational problems of the world lies not with the social worker, but with the scientists and engineer. Only through the capitalistic society as we know it can we provide the techniques for material progress that are needed in this country and abroad. If it is food for starving children in Biafra, it must come through the American production genius. If it is equipment to cultivate the fields of India, it must be produced by the engineering techniques of an advanced society. It is money for the United Fund, it must come from the workers of the industries who receive their wages from the production of goods. If it is education for the men of other countries so that they may move to copy our industrial progress, it must come from the universities supported by taxes and gifts which, in turn, come from America's industrial might.

Of course, we cannot bring about world-wide peace and prosperity through this materialistic approach along. Engineers and scientists can take justifiable pride in the achievements just mentioned, but their contributions in the field of human relations have been insignificant. In coming years, the technological arm of our society must see that the power of techniques learned during our era of material progress are applied to the area of human relations. Corporate and tax dollars must be put into research in the humanities and sciences. Finally, we in technology must "will" the best for all the men of the world, driving toward this goal with the same devotion we used in achieving our materialistic goals.

The scientist, engineer, and engineering manager has before him great challenges and great opportunities. The rewards are also great. And to those who choose to devote their careers to these goals, America's debt will be great.

Dr. Spokes Continues Service as Officer of A.I.M.M.E.

Dr. Ernest M. Spokes, Chairman of the Department of Mining and Petroleum Engineering, has been appointed vice president for 1969 of the American Institute of Mining, Metallurgical and Petroleum Engineers.

As one of the six institute vice presidents, Dr. Spokes will serve on the Board of Directors and will represent the AIME in visits to various sections of the institute across the country. The six vice presidents represent the Society of Mining Engineers, the Metallurgical Society and the Society of Petroleum Engineers.

He is also central regional vice president of the Society of Mining Engineers of AIMR, a position which he will hold until 1971.

Dr. Spokes served AIME as vice president representing the Society of Mining Engineers in 1967 and member of the board of directors from 1965-68. He was a member of the board of directors of the Society of Mining Engineers from 1961-64. He has been for several years, a member of the executive committee of the coal division of the society and member of the coal division scholarship selection committee, and is a member of the SME education committee of which he was chairman in 1967.

He has served on the coal research committee and on the coal show program committee of the American Mining Congress. He was chairman of the minerals engineering division of the American Society of Engineering Education in 1965-66.

Dr. Anton deS. Brasunas, director of the St. Louis Graduate Engineering Center, has been reappointed to the AIME committee on continuing education for 1969.

Dr. Harry Weart, chairman of the department of metallurgical and nuclear engineering, was chairman of the AIME Council of Education in 1968 and has served on the education and the publications committees of the Metallurgical Society. Dean Emeritus Curtis L. Wilson also served as vice president of the AIME in the past.

Capt. Miklos Receives 23 Medals for Air Action in S. E. Asia

Captain George A. Miklos '57, now an operations staff officer at Headquarters, U.S. Air Force, Washington, D. C., was recently decorated with 23 medals for his actions in Southeast Asia.

Captain Miklos was presented three awards of the Silver Star, six awards of the Distinguished Flying Cross, and 14 Air Medals.

The captain earned the medals as an F-105 Thunderchief electronics warfare officer with the 357th Tactical Fighter Squadron at Takhli Royal Thai AFB, Thailand. His Silver Stars were for surface-to-air missile suppression flights over North Vietnam prior to December 1967.

Captain George A. Miklos is presented with medals for his actions in Southeast Asia by Major S. J. Byerley, deputy director for operations for the deputy chief of staff, plans and operations of the U. S. Air Force.

Disregarding his own personal safety, he deliberately exposed himself to SAMs and MIGS so that strike aircraft could destroy vital targets in the Hanoi area. His courage and outstanding airmanship enabled strike aircraft to destroy the Doumar Highway and Railroad Bridge, missile units, artillery positions and neutralize a transformer station.

Although his aircraft sustained a direct hit on one mission, Captain Miklor courageously continued his bomb dive run and completely destroyed and active flack site defending a mobile SAM position.

The DFC's were earned on various flights over North Vietnam. On these flights the captain suppressed missile threats, acted as a decoy so that the main strike force could destroy vital enemy targets.

The Air Medals were presented to Captain Miklos for meritorious achievement which contributed to the mission of the U.S. Air Force in Southeast Asia.

The Captain and his wife, Mary, have four children.

Dr. Stone Cited for Distinguished Service in Thermal Analysis

Dr. Robert L. Stone '34, a leader in the development of measurement methods for thermal analysis, was the recipient of the 1969 Mettler Award in Thermal Analysis. The award was presented at the Third Toronto Symposium in Thermal Analysis held at the Inn on the Park, Toronto, Canada, February 25-26.

Mettler Instrument Corporation, Princeton, New Jersey, sponsors the award which consists of a citation and $1,000. The award recognizes and encourages work in and distinguished services to the field of dynamic thermal analysis. Nominees must have performed outstanding service to the field of dynamic thermal analysis or performed outstanding creative work in either the creation or refinement of measurement techniques of generally wide interest.

Dr. Stone, Vice President and Technical Director for Analytical Instruments, Tracor, Inc., is an expert in the fields of ceramic engineering, differential thermal analysis, and analytical chemistry. He is well known for his delineation of the effects of atmosphere control in dynamic thermal methods, his achievement in instrument design, and his understanding of thermal phenomena in materials. In 1959, he founded the Robert L. Stone Company–manufacturers of equipment for differential thermal analysis and thermogravimetric analysis. The company was purchased by Tracor, Inc., in 1966. He has written four books on ceramic engineering, and published many articles and bulletins on applications of differential thermal analysis.

Dr. Robert L. Stone

Dr. Stone is a member of various professional, technical, and honorary societies. He is listed in Who's Who in Engineering and Who's Who in Education and he is a Fellow of the American Ceramic Society, the Mineralogical Society of America, and the American Association for the Advancement of Science.

ALUMNI SECTION NEWS

Tulsa Meeting

Seventy alumni and guests from Tulsa, Bartlesville, Oklahoma City, Ada and out-of-state points took over the 14th floor of the Tulsa Petroleum Club Saturday evening, January 25, for what has been described as the most outstanding alumni gathering in Oklahoma during recent years.

The meeting honored alumni who have been active leaders in the Centennial Challenge Program's alumni effort, the Centennial Priority Campaign for the University Center. So recognized were Area 6 Executive Chairman Karl F. Hasselmann, Oklahoma State Chairman Hans Schmoldt, Tulsa Chairman Herman Fritschen, Bartlesville Chairman Kenneth Yochum, and Oklahoma City Chairman George Fort.

Absent from the meeting due to illness was one other to be honored: H. E. "Hank" Zoller, Dr. Hasselmann's associate chairman of San Antonio, Tex., who had anticipated being with two brothers, Lawrence Zoller and John Zoller of Tulsa, both of whom attended, and a special guest and former business associate, John O. Farmer, of Russell, Kansas, as well as other friends of many years from the Tulsa area.

Also a special guest was Mrs. Thomas Leach of Tulsa, widow of the late Thomas W. Leach '20.

From St. Louis, Association President James J. Murphy and Mrs. Murphy flew down to be with Oklahoma alumni, and from Rolla Chancellor and Mrs. Merl Baker, Dean Emeritus Aaron J. Miles, Executive Secretary of the Association and Mrs. F. C. "Ike" Edwards, Field Secretary of the Association and Mrs. Frank Mackaman, President of the Student Union Board Randy Richards and Centennial Director Bob Sutton were present.

Master of Ceremonies Hans Schmoldt set the tone for the meeting with a paraphrase of Lincoln's Gettysburg address:

"Two score, and five weeks ago, our alumni leaders brought forth on this State a new Centennial Challenge, conceived in loyalty, and dedicated to the proposition that a great University Center shall be built upon our campus. We are now engaged in a great Priority Campaign, testing whether we alumni, or any group of people so concerned, and so dedicated, can meet this challenge. We are met, in a great central city of this State. We have come to express appreciation to those who here gave of their time and personal resources, that our University Center may live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot yet dedicate, we cannot yet construct, nay, we cannot yet plan our University Center. We must strive for higher goals, and we must pledge with greater bounty. The brave men, who struggled here, and throughout this campaign, have made great strides toward the ultimate goal of this campaign. The University will little note, nor long remember what we say here; but it can never forget what they have done. Rather, it is for us, the determined, to be dedicated here to the unfinished work, which they who have campaigned here, have thus far so nobly advanced. It is rather for us to be dedicated to the great task remaining before us — that from the pace, and foundation here established, we move on with great determination to that cause for which we must all give our greatest support and effort — that we here highly resolve, that those who have thus far struggled, shall not have struggled in vain, that our University Center, under Jim Murphy, shall have a new birth of dedication, and that our University of Missouri at Rolla, her dedicated leaders, and her proud alumni, shall flourish upon the earth."

OKLAMOMA UNIVERSITY CENTER FUND LEADERSHIP — Present at the January 25th meeting of alumni in Oklahoma to discuss the University Center Fund were national, area, state and metropolitan leaders. From left, Tulsa Chairman Herman Fritschen '51, Oklahoma City Chairman George Fort '40, Area 6 Executive Chairman Karl F. Hasselmann '25, Bartlesville Chairman Kenneth Yochum '50, Chancellor Merl Baker, Oklahoma State Chairman Hans Schmoldt '44, and Interim National Chairman and President of the Alumni Association James J. Murphy '35, of St. Louis.

Since Oklahoma alumni had not had an opportunity to meet in state-wide session in recent years, each, as Emcee Schmoldt called his name, took brief minutes to bring the group up-to-date about his activities and current interests.

Principal speaker of the evening, Chancellor Merl Baker briefed alumni

about current activities at the Rolla Campus and Rolla's efforts to help overcome the national shortage of engineers. He made the trip to visit Oklahoma alumni in spite of a broken left arm which he had sustained the previous day while at a meeting in Columbia, Mo.

Among others bringing greetings, senior student Randy Richards brought an appeal from current and future students to alumni for support of the alumni project University Center. His address appears elsewhere in this issue of THE ALUMNUS.

Attending from Tulsa were Mr. and Mrs. Herman Fritschen, Mr. and Mrs. Bennett Howell, Mr. and Mrs. Jerry Doane, Mr. and Mrs. Joseph Wanenmacher, Mr. and Mrs. Joseph Jarboe, Mr. and Mrs. Oscar Holman, Mr. and Mrs. William Coghill, Mr. Lawrence Zoller, Mr. John Zoller, Mr. and Mrs. Ray Pfaff, Mr. and Mrs. James McDonald.

Mr. and Mrs. Joseph Scally (Bixby), Mr. and Mrs. Terry Mills, Mr. Gerald Henson, Mr. Lindy Cummins, Mr. and Mrs. James Clippard, Mr. Frank King and guest, Mr. and Mrs. Edwin Barsachs, Mr. and Mrs. Glen Jett, Mrs. Tom Leach, Mr. E. A. Smith, and Mr. and Mrs. Joseph Cook.

From Bartlesville came Mr. and Mrs. Kenneth Yochum, Mr. and Mrs. Herbert Volz, Mr. and Mrs. Vernon McGhee, Mr. and Mrs. Alan Kamp, Mr. and Mrs. Kenneth Klebba, and Mr. and Mrs. Hans Schmoldt with their son, a freshman student at UMR, Hans Karl Schmoldt.

Oklahoma City alumni who attended were Mr. and Mrs. George Fort, and Mr. and Mrs. Robert Schoenthaler.

Mr. Bruno Rixleben came from Ada.

Non-alumni who had the privilege of visiting with the group included Mr. Harold Zielke, public relations officer for Skyways Airline of Rolla, and pilots Chester Clore and Armond Baughman who had escorted the Chancellor's party to Tulsa as a courtesy of the airlines company.

Randy Richards, president of the Student Union Board, made the following remarks during the Tulsa meeting. They express the concern of current and future students for the much needed university center.

Class of 1933 represented at the Tulsa Meeting — William W. Coghill '33, John O. Farmer II '33, James F. McDonald '33.

Greetings from the Student Body!

I am here tonight to show you the need for a new University Center. I stress the word *need* because of the vital role the Student Union plays in the college community.

Since some of you may not be familiar with the purpose of the Student Union, I would like to tell you a little more about it so that you can see the need.

The Student Union serves the physical needs of the students as well as developing social, cultural and intellectual understanding.

1. The Student Union provides recreation – ping pong and billiards, TV and dances, and other forms of relaxation.

2. It provides worthwhile entertainment – concerts and special lectures.

3. The Student Union is the community center of the University for all members of the university family – students, faculty, administration, alumni, and guests.

4. It is the "living room" or "hearthstone" of the University.

5. It is a place to get to know and understand one another through informal association outside the classroom.

6. It serves as a laboratory of citizenship, training students in social responsibility and leadership in our democracy.

It encourages self-directed activity, giving a maximum opportunity for growth in individual social competency and group effectiveness.

8. It gives a new dimension to education.

9. It cultivates an enduring regard for and loyalty to the University.

So now you see that the Student Union is more than just a building – it is an organization with a purpose and a program.

The Student Union sponsors concerts and special lectures. At every event this year the ballroom has been overflowing with students looking through open doors as far as they could see and hear. Only a few members of the university family are able to attend due to lack of adequate space for all. Faculty and administration forfeit their privilege so more students can be seated.

There is a possibility that Scott Carpenter, the astronaut and aquanaut, will be a speaker on campus this spring. Weather permitting, we may have to set up chairs on the campus mall in order to have adequate space. There have been opportunities for excellent plays and musical programs but due

to the lack of facilities, scheduling has been impossible.

The present Student Union was constructed to accommodate a campus enrollment of 1,500. We now have over 5,000 students and in a few years this number will double.

The Student Union is the community center for the university family including alumni. The names of all alumni donors are to be listed in the new facility's "Hall of Dedication." There, students would always be reminded of alumni and honor their efforts.

Perhaps in some small way you have seen a portion of the benefits of the Student Union here tonight in my life. I owe much to this organization and I hope that the *Need* has been seen and that the new facility can be secured so that more of the university family can reap the rewards.

In order to make the new University Center a reality, your encouragement as well as financial support is needed. Students can be exhorted to become active alumni by looking to your example as present alumni and your pride in your Alma Mater.

Left to right: Ragan Ford '23 and Mrs. Ford; Mrs. Crider and Kevil Crider '23, President of the Ark-La-Tex Section.

Ark-La-Tex Section

The Ark-La-Tex alumni gathered for their winter meeting at the Ramada Inn at Minden, Louisiana, January 11, 1969. Hosts of this gathering were Minden alumni, J. C. "Fish" Salmon '22 and Mr. and Mrs. Ragan Ford '23. A social hour preceded the dinner.

A business meeting followed for the reading of the minutes of the previous meeting and a slate of officers were nominated and elected for 1969.

The President for the ensuing year is John Moscari, Jr. '51; Vice President, Charles McGaughey '50, and Secretary-Treasurer Homer F. Thompson '32. The date for the Spring Meeting was set and it will be held April 26, 1969, at the residence of Mr. and Mrs. Homer Thompson, 4101 Lochridge Road, Little Rock, Arkansas.

Chancellor Merl Baker spoke to the gathering telling of the progress and the growth of the school and the future plans for the university. And the importance of alumni support.

Dr. Karl Hasselmann '25, Chairman of the Centennial Priority Campaign for Area No. 6, and Hank Zoller 23, each expressed the need for the University Center on the UMR campus. The funds for this facility must come from other than state appropriations. Frank Mackaman, the new staff member in the Alumni Office, was introduced and spoke briefly. Dr. Aaron Miles '30 and W. H. McCartney '16, also were called on for brief remarks.

Robert M. Brackbill '42, Vice President for Production, Texas and Pacific Petroleum Company and who is Chairman for the State of Texas under Dr.

Left to right: J. C. "Fish" Salmon '22, Mrs. Baker, Dr. Karl Hasselmann '25, Claude N. Valerius '25.

Hasselman, gave Chancellor Baker a check for $5,000 as a first annual gift from the Halliburton Education Foundation, Inc., and he remarked that it is probable that the amount will be increased to $10,000 annually.

Mr. and Mrs. Ragan Ford, Mr. and Mrs. John Livingston, Mr. and Mrs. David Flesh and J. C. Salmon were hosts at a breakfast Sunday morning. Twenty-two guests enjoyed a delightful meal before departing.

Alumni guests present at the Saturday dinner were: J.C. Salmon '22; Mr. and Mrs. Charles McGaughey '50; Mr. and Mrs. David Flesh '23; Mr. and Mrs. Ragan Ford '23; Mr. and Mrs. Homer Thompson '32; Mr. and Mrs. Denver Patton, Jr. '52; Mr. and Mrs. John Moscari, Jr. '51.

Mr. and Mrs. John J. Krebs '16; Mr. and Mrs. J.O. Ferrell '40; Mr. and Mrs. Gerald Roberts '28; Mr. and Mrs. W.R. Mays '32; Mr. and Mrs. John Livingston '39; Claude Valerius '25; Mr. and Mrs. William H. McCartney '14; Mr. and Mrs. Kevil Crider '28; Chancellor and Mrs. Merl Baker; Bob E. Sutton; Mr. and Mrs. Frank Mackaman; Robert M. Brackbill '42; Ike Edwards; Dr. Karl F. Hasselmann '25 and Dr. Aaron J. Miles '30.

Chancellor Baker receives a check for $5,000 from Robert Brakebill '42, the Texas Chairman for the Centennial Priority Campaign. The gift is from the Halliburton Educational Foundation.

Traditional Meeting Held in Washington, D.C.

The Rolla alumni had their traditional gathering during the Annual Meeting of the American Institute of Mining, Metallurgical and Petroleum Engineers. This year it was in Washington, D.C. More than fifty alumni, guests and faculty attended the Alumni Luncheon at the Washington Hilton Hotel, February 18. John Toomey '49, arranged for this successful gathering with many alumni from both the Washington area and those who were attending the AIME convention.

John was M.C. He introduced Chancellor Merl Baker who spoke to the group about the rapidly growing UMR campus. Dean Aaron J. Miles '30, in his brief remarks told of the Centennial Challenge Program and his pleasure of reacquainting himself with the alumni. Frank Mackaman, Field Secretary in the Alumni Office at UMR, was introduced and spoke briefly.

Previously these occasions have been in the evening and the luncheon hour limited the time of the session. The abbreviated meeting was enjoyed by those present.

Those in attendance were: Frank Appleyard '37; W. A. Blood; Jose A. Botta, Jr. '65; Mr. and Mrs. O. L. Brandenburger '23; John S. Brown '17; Raymundo J. Chico '59; Mr. and Mrs. Richard E. Cole '47; Robert P. Alger '38; Daniel Eppelsheimer, Jr. '64; William H. Feldmiller '54; James H. Fox '42; Joe E. Gray '54; Mr. and Mrs. H. W. Flood '43; R. D. Grimm '37; Robert B. Hopler '54.

James L. Hetherington '50; James H. Jacobs '39; A James Kiesler '40; William E. Mead '49; Mr. and Mrs. James H. Menefee '36; James R. Paul '43; Ed Rassinier '42; Herbert O. Schramm '25; William M. Shepard '51; Mr. and Mrs. Carl J. Thye, Jr. '57; Dr. Robert Van Nostrand '42; Mr. and Mrs. John Toomey '49; Thomas H. Weidman '50; Billy West '58; Mr. and Mrs. Don E. Williams '56; Eugene E. Winter '50 and John P. Zedalis '52, and Joseph A. Kolasch.

Those from the campus who were present: Chancellor and Mrs. Merl Baker; Mrs. Ernest Spokes; Dr. James J. Scott '50; Dr. Aaron J. Miles '30; Dr. Daniel Eppelsheimer; Dr. Thomas O'Keefe '58; Dr. Harry Weart; Professor and Mrs. Richard L. Ash; Dr. Thomas R. Beveridge '42; Dr. Robert Carlile; Frank Mackaman and Ike Edwards.

Detroit Section

The Detroit Section of the Alumni Association held their winter meeting January 13, 1969, at the Chambertin House in Dearborn, Michigan. There were thirty-three alumni and guests at this dinner meeting. George Baumgartner '56, President of the Section pre-

sided. Immediately after dinner, he called for a business meeting for the election of a new president. By prearranged strategy he relinquished his office and Douglas Kline '61, is the group's new leader.

The group was pleased to have as their honored guest, James J. Murphy '35, President of the national alumni association. Jim is also Interim National Chairman of UMR's Centennial Priority Campaign. Speaking as the chairman and an alumnus, he told the group about the campaign to raise funds for construction of an addition to the University Center on the campus. This facility that is badly needed by the students should receive the financial support of all alumni.

Those attending the dinner were: R. F. Gillham '56; R. G. Frakes '57; Mr. and Mrs. Douglas Kline '61; Brij Mohta '64; Shanti Jani '65; John E. Francis; R. S. Gabrielse '51; Mr. and Mrs. R. Dean Jarman '63; Mr. and Mrs. Floyd Uthe '66; Mr. and Mrs. Clarence Benton '68; Mr. and Mrs. Richard Powers '68; Mr. and Mrs. Larry McKinnis '66; Mr. and Mrs. Gene Fadler '62; Mr. and Mrs. George Daumgartner '56.

Those from the Rolla campus were: Dr. Gordon L. Scofield '49, and Mrs. Nancy Scofield '50; Dr. and Mrs. Bill Gatley and three students who were guests and were awarded an all-expense trip to the national meeting of the Society of Automotive Engineers meeting in Detroit. The students were Ronald Schoenbach '70; Dennis Schlueter '70 and Thomas V. Huber '68. Ike Edwards and Frank Mackaman from the Alumni Office, and James J. Murphy '35, President of the Alumni Association.

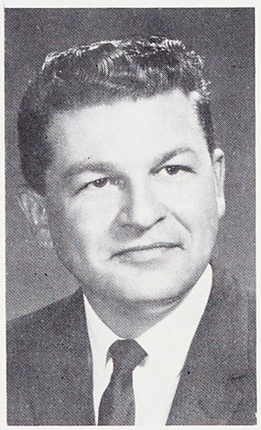
Named Head of Mathews Conveyor Co., Division

Mr. Dwight E. Lewis '47 has received the appointment as President of Mathews Conveyor Co., a division of REX Chainbelt, Inc., Ellwood City, Pennsylvania.

Mr. Lewis will be responsible for all activities of the division. The division has manufacturing facilities at Ellwood, City, Pa., Chico, California, and Port Hope, Ontario.

Lewis joined REX Chainbelt's management training program in 1947. He was appointed tool engineer in 1949, and became supervisor to tool design in 1950. In 1954, he was appointed assistant superintendent of the company's Chain and Transmission Division, and was made superintendent of that division in 1957.

Lewis served as factory manager of the Heavy Machinery Division from 1961 to 1963. He was promoted manager of the Chain and Transmission Division and Foundry in 1963. Most recently, he has been general manager of the Mathews Conveyor Division.



Dwight E. Lewis

He is active in the Rotary Club of Ellwood City, The Industrial Committee of the Ellwood Chamber of Commerce and the Boy Scouts of America. The Lewis' reside at 621 Morningstar Drive, Ellwood City.

Advanced in Laclede Steel Company

W. A. Peters '35 and Harry M. Meyer, Jr. '57 have received management appointments with Laclede Steel Company.

Mr. Peters, former general superintendent, is now assistant to the vice president of operations. He has been with Laclede Steel for forty years. He began his career with Laclede in February 1928, in the Metallurgical Department at the Alton works. He has served in a number of management positions with the company. In 1955, he was named superintendent of manufacturing, in 1959, he was appointed

W. A. Peters

plant superintendent, and in 1963 was elevated to general superintendent. He is married, the father of one daughter and lives at Crystal Lake in Godfrey, Ill.

Mr. Meyer joined Laclede in January 1957, and in March of that year he went on active duty with the Navy

Harry M. Meyer

and served as an officer until July 1960. In 1962, he was named tube mill general maintenance foreman; in 1963, he was assigned as master mechanic of the Alton Plant; and in June 1968, Meyer was named assistant superintendent of the Service and Maintenance Department. Since May 1967, he has been on a special assignment as project manager for the construction of the pre-stress merchant bar mill and swing forge now nearing completion at the Alton works. Meyer will continue to serve in this capacity on a temporary basis until the new pre-stress

Computer Science Department Established At UMR January 30; Chairman Sought

A Department of Computer Science has been established at UMR. The department became effective January 30. A committee has been appointed to make recommendations for a chairman of this new department.

Computer science is not new on the Rolla campus. The M.S. degree in computer science was approved in 1964, the B.S. degree in 1966 and the Ph.D. degree in mathematics with the emphasis in mathematics and computer science in 1967.

Presently, there are about 150 enrolled in the B.S. degree program, 40 in the M.S. program and nine in the Ph.D. program. In addition to serving its major, computer science is required in almost all engineering and science curricula on the campus. There are now 12 staff members in computer science at the professional level with five more at the instructor level on the faculty.

The department already has a substantial beginning in the computers and equipment required, located in the Computer Science Center located in Harris Hall. Professor Ralph E. Lee is the director of this center which will work very closely with the new department.

UMR has received state funds for a new mathematics-computer science building. Construction, however, has not yet begun on this $1.6 million facility because of a delay in receiving approximately one third of this total from the federal government.

Another measure of the growing stature of computer science is the summer program on the campus. Over the past six years UMR has received about $450,000 from the National Science Foundation for summer institutes. This summer the seventh annual institute in computer science for college teachers will be held. The institute has served 252 teachers thus far. Four NSF summer in-service institutes in computer science for high school teachers have been held here since 1964.

Chancellor Baker states, "Our goals are to develop the best instructional and research computer science department in mid-America. The computer equipment for this will be planned to serve as a laboratory for these instructional and research programs. It will also meet the research service requirements for other departments on the campus."

1969 HOMECOMING

OCTOBER 24-25

Reunion for Classes of 1924, 1929, 1934, 1939, 1944, 1949, 1954, 1959 and 1965.

mill is completed. Meyer, his wife, Wanda, and their two sons and one daughter reside at 3207 Mission Road, Alton.

MSM
Alumni Association
University of Missouri - Rolla

This is to certify that

is a 1969 member of the

CENTURY CLUB

an organization of alumni founded on May 27, 1967 to aid and support the University of Missouri - Rolla through substantial gifts to the MSM Alumni Association Annual Alumni Fund.

President *Secretary - Treasurer*

Exec. Vice President *Exec. Secretary*

This is a replica of the Century Club Award to be presented to alumni who contribute $100.00 or more to the Alumni Association's Annual Alumni Fund. Five, ten and twenty-five year awards will also be made to those continuing to contribute $100.00 per year over this span.

Military Ball Queen

The annual Military Ball, the campus social event of the year, was held the evening of February 15th at the National Guard Armory. The 1969 Military Ball Queen was the lovely Miss Lendi Ann Stettler, a sophomore at UMR, who was sponsored by the Pershing Rifles. Runners-up are Miss Linda Jean Walker (left) of Dickinson, Texas, and Miss Candy Hover, of Kansas City, Mo.

Rugby Popular New Sport on Campus

Rugby is fast becoming a well known sport in this country and the UMR team is among those better known this season.

UMR has two teams, the neophyte Gold Team and the Blacks, the veteran squad.

The Blacks were invited to New Orleans to play in the annual Hammond Mardi Gras Rugby Tournament. Their first opponent was the team from the University of Texas-Galveston. This game was forced into a sudden death overtime and Galveston was overpowered in the extra period.

The UMR squad next met the host team, Hammond, which they overwhelmed. Their third and championship game was against a combined team of Navy fliers and Marines from the Pensacola Naval Base. This contest ended with the score 22-11 and the Miners tournament champions.

Following the tournament the rugby team was to meet the squads from the University of Missouri-Columbia, Indiana U., Kansas U. and Wisconsin U. The Gold team will participate in the Missouri Rugby Football Union which is located in St. Louis.

UMR 4th Highest in Engineers in "Who's Who"

An article in the January 1969 isisue of "Mechanical Engineering" revealed that according to statistics taken from the 1964 edition of "Who's Who in Engineering," the Rolla campus ranked fourth in the number of engineers listed in that edition.

The statistics were based on the first engineering degree received by the engineers listed in the volume.

The 1964 "Who's Who in Engineering" is the latest issue of that publication which is published every five years.

At one time the Rolla campus was first in the number of engineers listed.

$1,018,287 Low Bid For Humanities, Social Science Building

The low bidder for the general construction of the Humanities and Social Science Building on the campus was Hoel Steffen Construction Company, of St. Louis, Missouri, with a base bid of $565,287.

The low bidder for the heating and plumbing with a base bid of $351,000 was The Murphy Company, St. Louis. Eckelkamp Company, a Washington, Missouri was the low bidder for the electrical work with a base bid of $102,000.

The low base bids for general construction, heating and plumbing and electrical work total $1,018,287.

The $1 million structure will house classrooms, laboratories and faculty offices for the Departments of Humanities and Social Sciences. The three-story brick building will be located west of the library and north of the mining and petroleum engineering building. It will contain more than 33,000 square feet of floor space.

The structure will be built with State of Missouri funds approved during last summer's special session of the Missouri legislature.

Record Poor, But Miner Cagers Showed Improvement

The Miner cagers were anything but spectacular this past season as they tallied a final slate of 5 wins and 17 losses. In all honesty, however, handicapped with a lack of experience, they did an admirable job. Many games fell to their opponents by merely a few points and the younger players showed a vast improvement as the season progressed, and it is forecast that they will provide plenty of headaches for their competitors next season. The team is losing their outstanding captain and center, Wayne Lewis who has played admirably the past four years. Much credit must be given to Coach Billy Key and his assistants who had quite a task in filling vital positions with inexperienced talent. The outlook for next year is bright since we now have experience at our fine coaching staff's disposal. And living in hopes that additional talent can be recruited that can pass physics, chemistry, math, etc., as well as play a good brand of basketball.

The Springfield Bears came out on top in the MIAA standing with Warrensburg in second place, followed by Kirksville, Maryville, Cape Girardeau and the Miners.

1968-69
UNIVERSITY OF MISSOURI - ROLLA
BASKETBALL SEASON'S RECORD

UMR	60	Harris Teachers	49
UMR	70	Southeast Oklahoma State College	64
UMR	61	Lincoln University	81
UMR	65	Missouri Southern	78
UMR	65	Missouri Valley	45
UMR	78	SEMS, Cape Girardeau	79
UMR	70	Trinity U. San Antonio, Texas	93
UMR	82	U. of Texas, Arlington	84
UMR	46	SWMS, Springfield	92
UMR	65	CMS, Warrensburg	67
UMR	58	NWMS, Maryville	65
UMR	54	NEMS, Maryville	70
UMR	63	Kansas St. College, Pittsburg	78
UMR	48	NWMS, Maryville	63
UMR	52	NEMS, Kirksville	77
UMR	90	Lincoln University	96
UMR	99	Missouri Valley	69
UMR	69	SEMS, Cape Girardeau	90
UMR	46	Pershing College, Beatrice, Neb.	67
UMR	49	SWMS, Springfield	92
UMR	70	CMS, Warrensburg	85
UMR	79	McKendree College	77

Won 5 — Lost 17

ENGINEERS AND SCIENTISTS WANTED

For information concerning the positions listed below, please contact Assistant Dean Leon Hershkowitz, UMR, Rolla, Mo. 65401. Also give the File Number.

GEOLOGIST – Minerals and chemical company on east coast. Refer File No. 216.

ENGINEER – Industrial: 35 to 40. 5 years experience. With strong background in incentives. North Central metal company. Attractive salary. Refer File No. 217.

Ch.E; M.E. – Experience in process equipment design. Also sales representative. Eastern suburban area. Refer File No. 218.

ENGINEERS – All disciplines. Large established company. Good salary range. Northern U.S. Experienced and non-experienced. Refer File No. 219.

M.E.-MET.E.-C.E. – Mining: Sales application-Mining Machinery. Also C. E. hydraulics engineer. Refer Files No. 220-223.

E..E; M.E. – Design engineer. Motor manufacturer. Missouri location. Refer File No. 224-225.

PROGRAMMER – ANALYST – 2 years experience IBM 360 using COBAL. Commercial. Refer File No. 226.

CHEMIST – Physical-Basic research. Glass industry. Refer File No. 227.

C.E.; CER. E; MI N. E. – Operation engaged in the mining and milling of ball clay. Refer File No. 228-230.

MANAGERS – Personnel and Material control. Grain drying equipment company. Midwest. Refer File No. 231.

DIRECTOR – Personnel. 5 to 7 years experience administration recruiting, counceling. Refer File No. 235.

ENGINEERS – Systems analyst/programmer. M.E. production manager trainees. To complete a training program. Management-warehouse operations administrator. Large midwest food and feed production plant. Refer File No. 236-238.

MET. E.; M.E. – 1 to 5 years experience. To develop quality control department. Machine tool evaluation, design and installation. Die press form design and flow operation. Good salaries. South central U.S. Refer File No. 239-240.

M.E.; E.E.; Ch.E.; PHYSICS: COMPUTER SCI. – Automobile manufacturer. Research center. Detroit area. Refer File No. 241-247.

E.E.; M.E.; C.E.; – Municipal utilities company. Mid-south. 21 to 35 years. Refer File No. 248-250.

ENGR-SCIENTISTS – Chemistry, physics, chemical engineer, mechanical and civil engineers. Graduate and advanced degrees. Several midwest locations, south and east. Experienced and non-experienced. Refer File No. 251-257.

AIR POLLUTION CONTROL Motor car manufacturer. Backgrounds environmental mechanical and chemical engineering or other related technical areas. Refer File No. 1, 2, 3.

METALLURGIST – Staff. Highly-automated midwestern foundry. Over 1,000 employees. New position. 4 to 10 years ferrous foundry experience. Refer File No. A-4.

ENGINEERS: – Ceramic basic research Process develop electronic and electro-mechanical mfg. processes. Automation, develop, supervise, design machinery for automated production. Refer File A-5, 6.

ENGINEERS – Sales. Manufacturers' representative. M.E.; Ch.E.; E.E. or Met. St. Louis area. Refer File No. 7, 8, 9. 10.

Ch.E.; – Development department. 2 to 5 years experience. Southwest location. Refer File No. A-12.

MET. E. – Employment in midwest plant. Nuclear division of large company. Refer File No. A-16.

Ch.E.; MET. E. – Several production staff openings provide excellent career opportunities in non-ferrous smelting E. Pa. and Northern Ill. Experience desirable, but not essential. Salaries commensurate with individual qualifications. Refer File No. 17-18.

ALL DISCIPLINES – Both science and engineering. B.S. and advanced degrees. Experienced and non-experienced. Salaries good. Refer File No. A-19 through 28.

MIN.; M.E.; C.E. – 1 or 2 years experience in mining or related minerals handling industry. Vacancy-Plant Engineer. Refer File No. A-29, 30, 31.

MET.; Ch.E. – Fluorspar mill. Ass't Mill Sup't in Texas. Good opportunity for advancement. Refer File No. A-32-33.

ENGINEERS – Six to eight by Sept. 1. Max. age 29. Sales. Midwest. Turnover in sales dep't nil, and new men are needed to permit company to reach future sales goals which have been established. Prefer men who have been with larger companies for a few years and are now looking for their "last job." Refer File No. A-34.

MARRIAGES

Rude-Ramsey

Owen D. Rude '65 and Lucy Ann Ramsey, Zanesville, Ohio, were married December 6, 1968. Owen is a field engineer with Schlumberger Well Services. His business address is Box 312, Opelousas, La.

Throckmorton-Jones

John H. Throckmorton '68 and Miss Brenda Kay Jones were married August 25, 1968, in the General Baptist Church, Poplar Bluff, Missouri. John is a chemical engineer with E.I. du Pont De Nemours and Company, Parkersburg, West Virginia. Their new residence is at 4908 8th Ave., Vienna, West Virginia.

Meier-Ross

Thomas O. Meier '66 and Bobbie Ann Ross, of Thomasville, Alabama, were married recently. The new groom just received his commission as 1st Lt. in the U.S. Army and the bride is a graduate of the University of Alabama, with a degree in music, and teachers in the schools of Enterprise, Alabama. Their new address is 117 Town House Apartments, Enterprise.

Dyhouse-Altadonna

Gary R. Dyhouse '64 and Miss Diane Altadonna, of St. Louis, Missouri, were married September 7, 1968. They reside in St. Louis, Mo., 4221 La Salette Drive, where Gary is a hydraulic engineer with the U.S. Corps of Engineers, St. Louis District.

Lambur-Weller

Charles H. Lambur '33 and Ute Weller, 2905 Avenue M. Aleman, Acapulco, Gro., Mexico were married January 15, 1968. Their residence address is 41 Park Avenue, New York, N. Y. Charles is President of Schneider of Paris, Inc.

Thompson-Duke

Rachel A. Thompson '65 and Alan H. Duke were married March 2, 1968. Mrs. Thompson is a senior associate programmer at International Business Machines, Endicott, N.Y. The Thompsons' address is 107 Pine Knoll Road.

BIRTHS

Mr. and Mrs. Warwick W. Doll '65, have a daughter, Kathryn Lynn, born February 16, 1969. Warwick is a candidate for a Ph.D. degree in the Polymer Science and Engineering Department of Case Western Reserve University, Cleveland.

Mr. and Mrs. Larry D. Cline '62, are parents of their first child, Laura Anne, born December 28, 1968. Larry is a reservoir engineer in the Corpus Christi District, Humble Oil and Refining Co. The Clines have purchased a new home at 227 Pecos, Portland, Texas.

Mr. and Mrs. Carl R. Carver '59, have a sister for Carl Paul who is 4 years old. Carolyn Heidi was born December 31, 1968. The Carvers live in Hamilton, Va. Their mailing address is P.O. Box 239.

Mr. and Mrs. Ronald R. Williams '63, welcomed Christopher John, January 7, 1969. His sister, Stacy, age one, is happy too. Ron and Janet have a new home too, at 1520 Sugargrove Court, St. Louis, Mo. Ron is a research scientist at McDonnell-Douglas.

Mr. and Mrs. Larry M. Lower '65, have a second son, Kevin Paul, born August 19, 1968. His sister is Kathy, age 8, and a brother is Randy, 2 years. The Lowers are in Seattle, Washington, 19004 46th Ave., South. The father is an Associate Research Engineer at The Boeing Company, Commercial Division.

Mr. and Mrs. Joseph D. Pridgeon

'67, have a son, Jay, born July 11, 1968. Joseph is a petroleum engineer with Pan American Petroleum Corportion, Farmington, New Mexico.

Dr. and Mrs. Albert E. Bolon '61, added a son to their family, January 14, 1969. Their daughter, Cynthia, is 18 months old. They all welcomed Bruce Thomas. Albert is Assistant Professor of Metallurgical and Nuclear Engineering at UMR. Bruce Thomas' grandfather is Harry C. Bolon '29.

Mr. and Mrs. Neal T. Schaeffer '68, 2608 D Park Hill Circle, St. Louis, Mo., are parents of a son born December 5, 1968. The father is employed at the Monsanto Chemical Company's central engineering department.

Mr. and Mrs. William J. Price '65, have a son, Bryant, born August 9, 1968. William was released from active duty with the Army, in August, and joined Union Carbide at their South Charleston Technical Center. He is working in the R & D Department in process development group. Their address is 6409 Bobbys Drive, Charleston.

Mr. and Mrs. Donald Bugg '65, have a daughter, Christine Marie, born September 27, 1968. They reside at 9575 Webster, Freeland, Michigan. Don assistant superintendent, bromine products, The Dow Chemical Company.

Mr. and Mrs. Donald K. Massey '67, began parenthood, January 19, 1969, upon the arrival of Shannon Moelle. This was her father's birthday also. The Masseys reside in South Bend, Indiana, 20339 Jewel Ave. Don is a mechanical engineer with South Bend Lathe, a division of Amsted Industries.

Mr. and Mrs. Richard Martin '64, announce the arrival of their second son, Curtis Anthony, on Halloween 1968. His brother, Scott, is three years old. The Martins at present are living in Denver, Colorado, but a move to Honolulu, Hawaii, is pending.

Mr. and Mrs. Robert W. Becker '57, are proud of their second child, David Alan who arrived December 23, 1968. They reside in St. Charles, Mo., 9711 Holtwood, and Robert is operations manager of Lectronix, Inc.

Mr. and Mrs. Frazier L. Bronson '64, are elated with their first child, Duane Stuart, born November 18, 1968. The new father is head, Instrumentation Division, Radiation and Industrial Safety Department, Armed Forces Radiobioloy Research Institute, Bethesda, Maryland. Their residence is at 1109 Broadwood Drive, Rockville.

Mr. and Mrs. Bruce Betts '63, announce the birth of their third child, Darrel Curtis, January 16, 1969, Brian is 4½ years and Debra is 2½ years old. Bruce is taking graduate work toward a Ph.D. at UMR.

2nd. Lt. and Mrs. Nick L. Prater '67, have a son, Michael David, born January 21, 1969. The Praters reside at 14 Sabre St., K. I. Sawyer AFB, Michigan.

DEATHS

Alfred D. Vores '50

Alfred D. Vores '50, died October 24, 1968, in Tallahassee, Florida. He was employed by the Florida State Highway Department at the time of his death. Surviving are his widow and two children.

Hugh Harness, Jr. '42

Hugh Harness, Jr. '42, 49 years died of a sudden heart attack, November 24, 1968, in Mobile, Alabama. He was employed as a chemical engineer for the Aluminum Company of America and had spent five years in Australia. He is survived by his mother, his widow, Evelyn, three children and three sisters.

Edward H. Cook '27

Edward H. Cook '27, died January 4, 1969, in his sleep. He was a chemical engineer and technical director with the Valspar Corporation, St. Louis, Missouri, at the time of his death.

John E. McCauley '27

John E. McCauley '27, died November 1, 1968.

Roswell H. Maveety '12

Roswell H. Maveety '12, died December 31, 1968, in Eugene, Oregon. He was a structural engineer, with offices in the Madaneck Building until 1964, when he became semi-retired.

Elmer F. Chapin '23

Elmer F. Chapin '23, died November 17, 1968. He retired in 1967 at which time he was Raw Materials Representative, U.S. Atomic Energy Commission with an assignment in Canada. He was residing in Cobourg, Canada at the time of his death. His wife died three weeks after his demise.

Lloyd A. Cutter '27

Lt. Col. Lloyd A. Cutter '27, U.S. Army (ret.) age 63, died January 6, 1968, at a Concord, New Hampshire, hospital after a brief illness. He resided on East Washington Road, Hillsboro, for the past 7 years. Col. Cutter was a veteran of World War II, having served 43 months in the European Theatre. He was awarded the Bronze Star for ground operations with the Army Engineers. He was owner of the Cutter Fire Brick Company, Cambridge, Mass. Members of the family include his widow, Mrs. Dorthy M. Cutter; two sons, Robert A., of Sudbury, Mass., and C. Thomas, of Wayland, Mass., five grandchildren and a brother, Howard of Auburn, Maine.

Carl G. Stifel '16

Carl G. Stifel '16, realtor, civic leader and Republican political leader, died February 23, 1969, at the Deaconess Hospital, St. Louis, Missouri after a long illness. He was chairman of the board and treasurer of the Carl G. Stifel Realty Company which he founded in 1930. He lived on the Woods Hill Road, Chesterfield, Mo. He graduated from the Missouri School of Mines, in Mining Engineering. He enlisted in World War I and was later commissioned a lieutenant in the field artillery. He was twice candidate for a political office in St. Louis. In 1953, he was a candidate for mayor of St. Louis but lost the contest. He held many public appointive posts.

He was a member of the St. Louis Housing Authority, served on the Board of Equalization, the Board of Adjustment, the Municipal Auditorium Commission and the Municipal Plaza Commission. A Shriner, he was potentate of the Moolah Temple in 1943. He inaugurated the annual outdoor Shrine Circus for the benefit of the

Shriners Hospital for Crippled Children, which he served as treasurer in 1941-42. He was also past president of the St. Louis Rotary Club and the St. Louis Convention and Publicity Bureau and vice president of the Engineers' Club, a former director of the Chamber of Commerce and a deacon and trustee of the Second Presbyterian Church. Surviving are his widow, Alma Clark Stifel; two sons, Carl Clark and Frederick Benton, and a sister, Mrs. Marie Shanley.

John Matsek '32

John Matsek '32, age 59, died February 9, 1969, in Little Rock, Arkansas. He was chief of the operations division for the Little Rock District, U.S. Army Corps of Engineers. He came to Little Rock in 1942. While Mr. Matsek

John Matsek

was assistant chief of the project planning branch, he directed engineering studies that led to the elimination of Lock and Dam No. 11 on the Arkansas River – a savings the government estimated at $21 million. He was honored by the government at the time for his work. He was a veteran of World War II and was retired as a lieutenant colonel in the Army Reserve. He is survived by his widow, Louise Means Matsek, a son, John, Jr., a daughter, Mrs. Jack Caughley, all of Little Rock; three brothers and three sisters.

Donald Tedford '23

Donald S. Tedford '23, died February 25, 1968. He resided in Espanola, New Mexico at the time of his death.

Alumni Personals

1907

A. B. Bartlett is still active and self employed. He is owner of mining properties but not producing at present. His residence address is 3 Alexander Lane, Littleton, Colorado.

1923

E. Rowland Tragitt, is Chief Mining Engineer, Southwest Region, U.S. Forest Service, Albuquerque, N.M. The region comprises the National Forest lands in Arizona and New Mexico and the National Grasslands in the western parts of Oklahoma and Texas. Rowland has been in ill health the past year and is now convalescing from surgery. He will retire on February 28. His address now is 147 N. "C" Street, Exeter, California.

Henry G. Hubbard is now in Oracle, Arizona. His mailing address is P.O. Box 401. He was formerly employed by Kaiser Steel Corporation at their Eagle Mountain iron mine, Eagle Mountain, California.

1928

Tom Murphy, consulting mining geologist, has a consulting contract for specialty metals exploration in Australia and Pacific Islands and South-East Asia. His address is Apt. 21, No. 44 Bennett, Cremorne, N.S.W., Australia. His business address is Placer Exploration Pty, Ltd., Kaiser Aluminum & Chemical Corporation. Mining House, 13th Floor Gold Fields House, Sydney Cove, Sydney, Australia.

1935

Warren B. Danforth, who is in the industrial diamond powders business, now has a new company the Min-Pro Corporation which uses a new diamond recovery process. Warren's residence and business are still in Pittsburgh, Pa.

1938

W.P. Ruemmler is manager of Engineering, Pacific Smelting Company, Torrence, California. The Ruemmlers are touting their first grandchild who arrived December 4, 1968.

1940

Everett W. Sharp, president of Lawrence Refractories Co., Division of BMI, Inc., Pedro, Ohio, has his youngest son enrolled at UMR this year.

John J. O'Neil has been named Vice President, Plastics in the Chemicals Group of Olin Mathieson Chemical Corporation. He was formerly Vice President, Commercial Development. He heads a new plastics department that was formed following the acquisition by Oil, recently, of a polyvinyl chloride resin operation in Assonet, Mass. In his new position Mr. O'Neill will be in charge of all of Olin's plastics operations which include, in addition to the resin, chemicals for urethane foams, special foam-filled building panels, special foam systems, and Nylon 12.

S. L. Hertling has been promoted to the position of plant manager for the new manufacturing plant of Sherwood Medical Industries, Inc., at Rosecrans Field, St. Joseph, Missouri. It will manufacture medical "prepackaged procedure" kits.

1941

Kenneth L. Hardine, Jr., construction superintendent, Gunther Construction Company, Galesburg, Ill., advises both of their children are in college. The daughter, Kendra is in Central Missouri State College, Warrensburg, and the son, Richard, is at Robert Morris College, Carthage, Ill. The Hardines reside at 1232 Dayton Drive, Galesburg.

G. D. Grayer

1942

George Grayer has been appointed to the new post of General Sales Manager Field Sales, for Bucyrus-Erie Company's domestic field sales force. All regional sales managers and sales managers of the Canadian subsidiary, will report to Mr. Grayer. He joined Bucyrys-Erie as a sales representative in 1948, and occupied a number of sales and sales management positions in the Company prior to being appointed Sales Manager-Large Machines in 1963.

1944

Dr. Robert P. Balin is currently employed as Science Coordinator for The American School in Makati, Rizal, a suburb of Manila, Philippine Islands.

1945

Earl M. Shank, after 21½ years with Union Carbide Corporation, at Oak Ridge National Laboratory, (of which the last 6½ years have been at Mol, Belgium, as the United States Technical Advisor to Eurochemic), has returned to the United States and has accepted a position with Allied Chemical Corporation. He is Director-Nuclear Project Engineering. His wife and two daughters will remain in Belgium until July 1969, at which time the youngest daughter will have completed high school. Earl's address is 11 Knollwood Road, Morristown, N.J.

1948

Harvey B. Leaver is now Assistant General Manager-Sales, Armco Steel Company, Middleton, Ohio.

1949

Robert R. Penman has been transferred from the position of mid-west regional sales manager, Texas Instruments Inc., to marketing manager for the commercial controls department. This changed his residence from Wheaton, Illinois, to Frankfort, Kentucky, 305 Leawood Drive.

1950

Martin G. Hobelman is extended our sincere sympathy and condolences in the loss of his wife, Faye Loughridge Hobelman, May 27, 1968. There are four children surviving. Martin resides at 14 Cordele Road, Newark, Delaware and is employed at the International Nickel Company.

Robert E. Wittman, materials engineer, Aeronautical Systems Division of the USAF at the Wright-Patterson AFB, Ohio has received a Certificate of Merit for his work in placement of armor on helicopters. The presentation was made by Major General Harrey E. Goldsworthy the installations commanding officer. Wittman and his wife, Jane, reside at 1728 South Union Road, Medway, Ohio.

Robert H. Mendell is with the Fred Weber Construction Company, St. Louis, Mo. His son, Frederick, is a junior at UMR. Robert's address is 1130 Dovergate, Kirkwood, Mo.

Billy Stevens has been promoted by Kerr-McGee, Inc. He is now Manager, Grants Operations, Grants, New Mexico. He formerly was Assistant Manager.

1951

Donald R. Brown, 1810 Arlene Avenue, Oxnard, California, Program Value Engineer, U.S. Navy Missile Engineering Station, Port Hueneme, has been licensed as a professional engineer in California.

Harry Harris, process department superintendent at the FMC Corporation's barium chemicals plant in Modesto, California for 10 years, has been promoted to assistant to the general engineering superintendent at the FMC's ash plant in Green River, Wyoming. He is a registered professional engineer and is active in a number of professional societies including the American Society of Chemical Engineers. He served in World War II and has held positions in his company's plants in Lawrence, Kansas and Newark, N.J. Mr. and Mrs. Harris have two children.

1952

James R. Hubbard is resident engineer with the Missouri State Highway Department and is now in charge of the new Interstate 44 project at Arlington and also the Highway 63 project in Rolla. He and his family reside at 37 Great Oaks, Rolla.

Wayne D. Jackson was promoted to mine superintendent, Goldsworthy Mining Ltd., Goldsworthy, W. A., Australia, last April. They have a son, Michael Ian, joined the family, in November 1967. Their daughter is Yolanda.

1953

Eugene A. Lang has changed employment and is now Manager of Operations mining Natural Resources, Union Pacific Railroad Company, 5480 Ferguson Drive, Los Angeles, California.

Dr. Frank M. Almeter has joined the research division of Brundy Corporation, Norwalk, Conn., as chief metallurgist and manager of metallurgical research. He will direct materials research applicable to the electrical connector field. His mailing address is P.O. Box 385, Norwalk.

1954

James A. Gerard has been transferred from Atlanta, Georgia, where he was assistant district manager to the main office of Union Special Machine Company, Chicago, Illinois. In the Chicago office he will be assistant to the vice president-engineering. The Gerards are building a new home in Cary, Illinois. They have five children; Steve 13, Jim 12, Julie 10, Jack 5 and Bob 2. Being closer to UMR Jim expects to attend homecoming this fall. Their address is 248 Wulff St., Cary.

1955

Laszlo F. Zala is with McDowell-Wellman Engineering Company, Cleveland, Ohio as project electrical engineer. The Zalas have six children. Emilia Maria was born December 27, 1968. The other three girls are Judith, Marianna and Eva. The sons are Laszlo and Steve. Their address is 2722 East 128th Street.

Arthur V. Fitzwater has been named marketing manager for the new consolidated and named USM Corporation (United Show Machinery Corporation). He was former regional manager for Harmonic Drive, in Los Angeles, California, which is part of the new company. The consolidation of U.S. Gear and Harmonic Drive will provide USM

with greater technical and marketing capabilities in producing mechanical and electro-mechanical actuation systems.

1957

Robert W. Cowan, Jr. recently completed requirements for a Master's degree in Business Administration at the University of Chicago after 4½ years of night school. Coupled with his petroleum master's degree from the University of Tulsa, he has turned into a banker and accepted the position of Vice President with the First National Bank of Denver. He will be the petroleum officer in the commercial loan department. He has worked for the past 5½ years in the petroleum division of the First National Bank of Chicago. Bob, his wife, Jo, and daughter Cathy, age 8, and Elizabeth 3, reside at 3755 East Easter Circle, South, Littleton, Colorado.

1958

Dr. Delbert Day, Professor of Ceramic Engineering and Director of the Industrial Research Center, at UMR, has been named Rolla's Outstanding Young Man for 1968. The award was sponsored by the Rolla Area Chamber of Commerce. Day is also president of the Rolla Community Development Corporation.

James W. Owen, Jr. has been cited for his work at the U.S. Army Mobility Equipment Research and Development Center, Ft. Belvoir, Va. The certificate was for outstanding performance of his duties as a senior project engineer in the Special Projects Division of the Intrusion Detection and Sensor Laboratory; and the citation for his technical management and administrative ability in connection with the Laboratory's budget; reducing the time cycle for research, development, testing and engineering of urgently needed detection and sensor items and the procurement of such items. He entered the Army in 1958, serving as a lieutenant at the R & D Center, where he accepted a civilian position in 1961. He, his wife Rosemarie, and children, Michael, Stephen, Gary and Renne, reside at 602 Botts Ave., Woodbridge, Va.

Wayne T. Andreas has returned to the United States from West Pakistan where he has been supervising the start-up of a power plant and distribution for the Pakistan Fertilizer plant. He is a project engineer for Esso Research and Engineering Co., Florham Park, N. J.

1959

Gordon E. Johnson has been named Vice President of Operations, Manley Sand Division of Martin Marietta Corporation, in Rockford, Ill. Their Rockford, Illinois address is R.R. No. 3, Box 234.

George H. Morgan is supervisor, cost analysis department, Bendix Energy Control Division, South Bend, Indiana. He is also commissioner on the City of South Bend Public Housing Authority. The Morgans have three sons.

Carl D. Sutfin, 2812 Flamewood Drive, St. Louis, Mo., has been with Union Electric Company for ten years; 1 year in training; 4 years at the Cahokia power plant; 2 years at the central engineering office of power production and now he is in his third year at the Meramec power plant.

Billy D. Powell, 321 West 18th, Riviera Beach, Florida, is with Pratt-Whitney Aircraft.

1960

Gordon R. Hyatt, structural engineer with Eckerlin-Klepper-Hahn, consulting structural engineers, has been made an associate of the firm. Their location is in Syracuse, New York and the Hyatt's residence is at 123 Washburn Drive, East Syracuse, N.Y.

Thomas G. Cassady recently joined the R.C. Can Division of Boise Cascade Corporation. R.C. Can's general offices are located in Hazelwood, Missouri. As project engineer, Thomas is responsible for maintenance and building construction for 19 manufacturing plants across the U.S. He formerly was with The Kroger Company, food chain in Nashville, Tennessee. The Thomas' have two children, Laura 6, and Charles, age 4.

Mike J. Higgins has been made project manager of Pyromet Industries, San Carlos, California. The company performs fabrication, brazing and heat treating. Mike, his wife Jill, and two children, Jenny and Robby, reside at 287 Devonshire Blvd., San Carlos.

Major William F. O'Neal is back on the campus in graduate school working toward a master's degree in Civil Engineering. His Army duty has taken him to Turkey and Vietnam and he is a qualified pilot of helicopters and fixed wing airplanes. He is one of the some 350 officers the Army has chosen for advance degree candidates. The O'Neals' address is 12 South Murry Lane, Rolla.

Glenn I. Swartz recently transferred from the position of plant superintendent at the Baroid Division, National Lead Company, Magnet Cove Chemical Plant, Malvern, Arkansas, to the Newberry Springs, California plant, as plant superintendent. They reside at 36851 Weston, Barstow, California.

1961

John L. Hodges is plant engineer at Owens-Illinois Glass Co., Gas City, Indiana, and resides at 2990 Eastridge Dr., Marion. The Hodges have three girls ages, 9, 5, and 4 – and another one is expected in April.

Lyn A. Denton has been elected to the board of directors of Daily & Associates, Engineers, Inc., Champaign, Ill. He is also Chief of the Highway Section for the firm.

Major Gene H. Mobley received this new rank last August. He was assistant flight commander, Department of Advanced Helicopter Training, Hunter Army Airfield, Georgia. He was previously assigned to the 1st Infantry Division in Vietnam. Among the awards he has received are the Distinguished Flying Cross, The Bronze Star Medal, the Air Medal with one "V" Device, the Army Commendation Medal and the Vietnam Cross of Gallantry.

Lt. Col. Donald J. Blichmann is now assistant district engineer, Kansas City District, U.S. Army Corps of Engineers, Kansas City, Mo. Col. Blichman has had two tours of duty in

Vietnam returned from his second assignment last July.

Gene H. Mobley after graduating in 1961, was commissioned a 2nd Lt., and received training at Ft. Belvoir, Va. He was sent to helicopter school at Camp Walters, Texas, spent three years in Germany and did a tour of duty in Vietnam as a helicopter pilot. Achieved the rank of Major in August 1968, but was released from the Army to become a flight engineer for United Airlines in September 1968. His present address is 3245 Kenny Dr., Falls Church, Va., later the Mobleys will relocate near Chicago.

William A. Koenig is a production supervisor at the National Lead Company's Chloride Process Pigment Plant, Sayreville, N. J. His address is 27 Matawan Terrace, Matawan, N.J.

Richard W. Bolander completed his requirements for a Ph.D. degree in Physics at UMR in January. He is an assistant professor in ceramic engineering at UMR. His address is 29 Rolla Gardens.

Cecil E. McGillan is chief engineer Allied Mortgage and Development Company, Inc., and resides at 8250 Dogwood Road, Germantown, Tennessee. Cecil advises that their oldest son, Pat, graduates from Germantown H. S. this year and seems determined to become a "double E" via UMR.

Captain Nelson H. Noell received his M.S. degree in Mechanical Engineering from the U. of Illinois, in August 1968, under the sponsorship of the Air Force Institute of Technology. He is assigned to Patrick AFB, Florida where he is currently working in the Payloads Branch of the Titan III-C Missile Program. His address is 75-A North Magnolia Drive, Satellite Beach, Florida.

HELP US KEEP YOUR ADDRESS CURRENT

If your address has changed, complete and tear out this slip and mail it immediately to MSM Alumni Association, Rolla, Mo. Thanks.

Name .....

My new address is .....

My Company or Business Is .....

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And My Title Is .....

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Here's Some News for the MSM Alumnus:

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1962

Robert W. Roussin recently was awarded a Ph.D. degree in nuclear engineering at the University of Illinois and is now working in the Radiation Shielding Information Center at Oak Ridge National Laboratory. His address is 119 Valparaiso, Oak Ridge.

Hung-Chi Chao has received a promotion to Associate Research Consultant in the research laboratory of the steel and wire division of U.S. Steel Corporation's Monroeville, Pennsylvania plant.

Jerome E. Luecke has been named a patent associate in the Patents and Licenses Division of Esso Research and Engineering Company, principal scientific and engineering affiliate of the worldwide Esso organization. Mr. Luecke joined the company as trainee in 1962. He passed the New Jersey bar examination in 1966 and became a patent attorney the same year. Six months later he was promoted to senior patent attorney. He now does patent and contract work for the Enjoy Chemical Laboratory. He received his B.S. degree in chemical engineering from Rolla, and is working towards his master's degree in economics at the New School for Social Research in Manhatten. He, his wife Helen, and daughter live in Elizabeth, N.J., 821 Jersey Ave.

Thomas M. Taylor, registered civil engineer, is with the County of Ventural, Public Works Department. He and his wife, Diane, have two daughters, Michele, 6 years old, and Nancy, 14 months. Their Ventura address is 8829 Tacoma.

1963

Charles Becker recently was promoted to Assistant Superintendent Annealing, Granite City Steel Company.

Clinton "Beau" Clark is a partner in The Clark-Pulver Group, an investment management firm in Hartford, Connecticut.

Richard Siegele, plant metallurgist, Lindberg Heat Treating Company, St.

Louis Division recently became a registered professional engineer in the State of Missouri and appointed membership chairman, Society of Diecasting Engineers, Chapter 17. The Siegeles' residence is at 200 Birchlawn Drive, Florissant, Mo.

Lt. Col. M. L. Northcutt has been commanding officer of the 69th Engineers since October 1968, and is stationed in Can Tho. His area of operation consists of the Mekong Delta south of the Mekong River. He is due for a transfer to Ankara, Turkey in May 1969. His address is Hq. 69th Engr. Bn., APO San Francisco 96215.

Dewey F. Brown, Jr. was recently promoted to Assistant City Engineer, Bloomington, Illinois. He is now a Registered Professional Engineer in the State of Illinois. His address is 1226 Gettysburg.

Robert E. Huston is a development engineer with the Security Systems Organization, Sylvania Electronic Systems. The Hustons have two children. Their second, Robert Jr., was born October 20, 1967. They live in San Jose, California, 5896 Castano Drive.

G. Michael O'Brien, 5547 Sandpiper Drive, St. Louis, Mo., is traffic methods supervisor, Southwestern Bell Telephone Company. Mrs. O'Brien is the former Bonnie J. Kuehne, of St. Louis. They have two children, Timothy Michael, age 3, and Daniel Patrick, born June 1967.

1964

Gary L. Voorhis has returned from two years' voluntary service in Newfoundland and is now process engineer at the Delco Radio Division, Kokomo, Indiana.

Lt. Charles G. Lyons has been assigned to the United States Military Academy at West Point, N.Y., as instructor in the Department of Mechanics.

Clyde S. Gudermuth, Jr. and wife have moved to Manchester, New Hampshire, where Clyde is production manager and plastics engineer for the Security Heel Company. Their first child is expected in February and their new

MSM Alumni Association

OFFICERS

			Term Expires
President	James J. Murphy '35	Murphy Company 4376 Olive Street, St. Louis, Missouri 63108	1971
Executive Vice-President	Peter F. Mattei '37	Exec. Director, Metropolitan Sewer Dist. 2000 Hampton, St. Louis, Mo. 63139	1971
Vice-President Areas 1, 2, 3	Lawrence A. Spanier '50	1551 Franklin Ave. Mineola, L. I., New York 11501	1971
Vice-President Areas 4, 5, 6	Joseph W. Mooney '39	7383 Westmoreland University City, Missouri 63130	1971
Vice-President Areas 7, 8, 9	William B. Fletcher '34	7515 Yankey St. Downey, California 90242	1971
Secretary-Treasurer	Dr. Thomas R. Beveridge '42	Department of Geological Engineering UMR, Rolla, Missouri 65401	1971
Executive Secretary Editor, "MSM ALUMNUS"	Francis C. Edwards	MSM Alumni Association, Grzyb Building, 9th & Rolla Streets, Rolla, Missouri 65401	
Field Secretary	Frank H. Mackaman	MSM Alumni Association, Grzyb Building, 9th & Rolla Streets, Rolla, Missouri 65401	

DIRECTORS AT LARGE

Hans E. Schmoldt '44	3305 Woodland Road, Bartlesville, Oklahoma 74003	1971
James A. Vincent '37	3721 Neptune Drive, Orlando, Florida 32804	1971
Rex Z. Williams '31	Rolla State Bank, Rolla, Missouri 65401	1971

AREA DIRECTORS

Area No.	Director	States and Provinces Embraced	Term Expires
1	Lawrence A. Spanier '50 1551 Franklin Avenue Mineola, Long Island, New York 11501	New England, N. Y., N. J., East Pa. Dist. of Columbia, Md., Va., Delaware, Province of Quebec	1970
2	J. O. Ferrell '40 1605 North 10th St. Longview, Texas 75601	S, Ark., N. C., S. C., La., Miss., Ala., Ga., Fla.	1969
3	O. W. Kamper '35 608 Vallevista, Pittsburgh, Pa. 15234	Pennsylvania, W. Va., Ohio, W. Pa., Ky., Tenn., Ind. (Except Chicago Industrial Area)	1969
4	Frank C. Appleyard '37 1209 Milwaukee Ave., Glenview, Ill. 60025	N. Ill., Chicago Industrial Area in Indiana, Wisc., Mich., Minn., Province of Ontario	1969
5	Richard H. Bauer '52 5 Sappington Acres Drive St. Louis 26, Missouri 63126	S. Ill., E. Mo., N. Ark.	1970
6	John A. Walker '50 Armco Steel Corp., 7100 Roberts, Kansas City, Missouri 64125	Iowa, W, Mo., Nebr., Kan., Okla.	1971
7	Robert M. Brackbill '42 Texas Pacific Oil Company 1700 One Main Place Dallas, Texas 75250	Texas, Arizona, New Mexico	1970
8	F. W. Heiser '39 16 Viking Drive Englewood, Colorado 80110	Ida., Montana, N. D., S. D., Wyo., Colo., Nev., Utah, Provinces of Manitoba, Sask., Alberta	1969
9	E. Murray Schmidt '49 3011 Marina Drive Alameda, California 94501	Alaska, Washington, Oregon, California, Hawaii	1970

EX-OFFICIO DIRECTORS

H. H. Hartzell '06
1301 Cleveland,
Baxter Springs, Kansas 66713

R. O. Kasten '43
6136 Manning,
Raytown, Missouri 64133

C. G. Stifel '16
8201 Maryland Avenue,
St. Louis, Missouri 63105

F. C. Schneeberger '25
No. 1 Briar Oak,
Ladue, Missouri 63132

Dr. Karl F. Hasselmann '25
3100 W. Alabama, Suite 207
Houston, Texas 77006

Dr. Mervin J. Kelly '14
2 Windemer Terrace,
Short Hills, New Jersey 07078

Harry S. Pence '23
17 Cambridge Ct.,
Glendale, Missouri 63122

Melvin E. Nickel '38
10601 South Hamilton Avenue,
Chicago, Illinois 60643

Paul T. Dowling '40
139 Frontenac Forest,
St. Louis, Missouri 63131

James W. Stephens '47
406 East Third,
Lee's Summit, Missouri 64063

*PROSPECTIVE FRESHMEN

The Students listed below are interested in attending UMR. Please send them information concerning the school.

NAME	ADDRESS	DATE OF GRADUATION

Submitted by: _____

*Send to Admissions Office, University of Missouri - Rolla, Rolla, Missouri 65401

address is 106 Hazelton Avenue, Manchester.

David J. Michel recently recieved his Ph.D. degree in metallurgy from Pennsylvania State University and is now a postdoctoral fellow at PSU. His address is 219 S. Sparks St., No. 23, State College, Pa.

1965

Dencil D. David, Jr. is a sales engineer for the Trane Company with residence at 3463 North 83rd St., Milwaukee, W isconsin.

1st. Lt. Charles F. Seger III, completed helicopter training at USAAVN, Ft. Rucker, Alabama and has been assigned to Vietnam, USARV Trans. Det., APO San Francisco 96375. His wife, Pamela, will reside in St. Louis, Mo., during his overseas tour.

1966

2nd Lt. Thomas L. McKenzie, Jr., is now on active duty with the U.S. Army and is serving with the 4th Co. BC, USA ACMLCS, Ft. McClellan, Alabama.

1967

1st Lt. Chester A. Henson, Jr. has been assigned to the Americal Division's 123rd Aviation Battalion near Chu Lai, Vietnam, as an aviator.

Army Spec 4C Gary Lee Kelso was named the Soldier of the Month for the month of July 1968 at the Arctic Test Center. The Center, located about 100 miles southwest of Fairbanks, Alaska, encompasses almost one million acres of rough terrain. It is here that tests are conducted to determine the suitability of U.S. Army equipment for use in an arctic environment.

Gerald E. Hefferly was an alumni office visitor in February. Gerald is with Disneyland, Inc., and resides at 400 W. Orangethorpe, Apt. 109C. Fullerton, California.

Airman Ronald Smith has been assigned at the Korat Royal Thai AFB, Thailand. He is an aircraft electrician and was previously on duty at McConnell AFB, Texas.

Joseph C. Finney is now a private in the U.S. Army and is stationed at Ft. Dix, N.J. for basic training.

1968

Kenneth R. Swindle was commissioned a second lieutenant in the U.S. Air Force upon graduation from Officers Training School at Lackland AFB, Texas. He was assigned to Eglin AFB, Florida for duty with the Air Force Systems Command.

Cameron E. Ferguson was also commissioned a second lieutenant at Lackland AFB, Texas, and will serve in the rocket propulsion research and development laboratories at Edwards AFB, California.

2nd Lt. Leland Lewis has been assigned to the 2nd Engr. Gp. (Contr.) Seoul, Korea. He was formerly employed by the Caterpillar Tractor Company, Peoria, Ill.

Tom O'Hanlon has received a promotion with the Rock Drill Division of the Ingersoll-Rand Company, Phillipsburg, N.J., and is now market analyst. In his new position he will make market forcasts to help in predicting company sales, and market surveys for proposed new products. He and his wife, Jan, make their home in Easton, Pa.

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