

1-1969

Volume IX - Issue 1 - January, 1969

Echoes Staff

Follow this and additional works at: https://scholar.rose-hulman.edu/rose_echoes

Recommended Citation

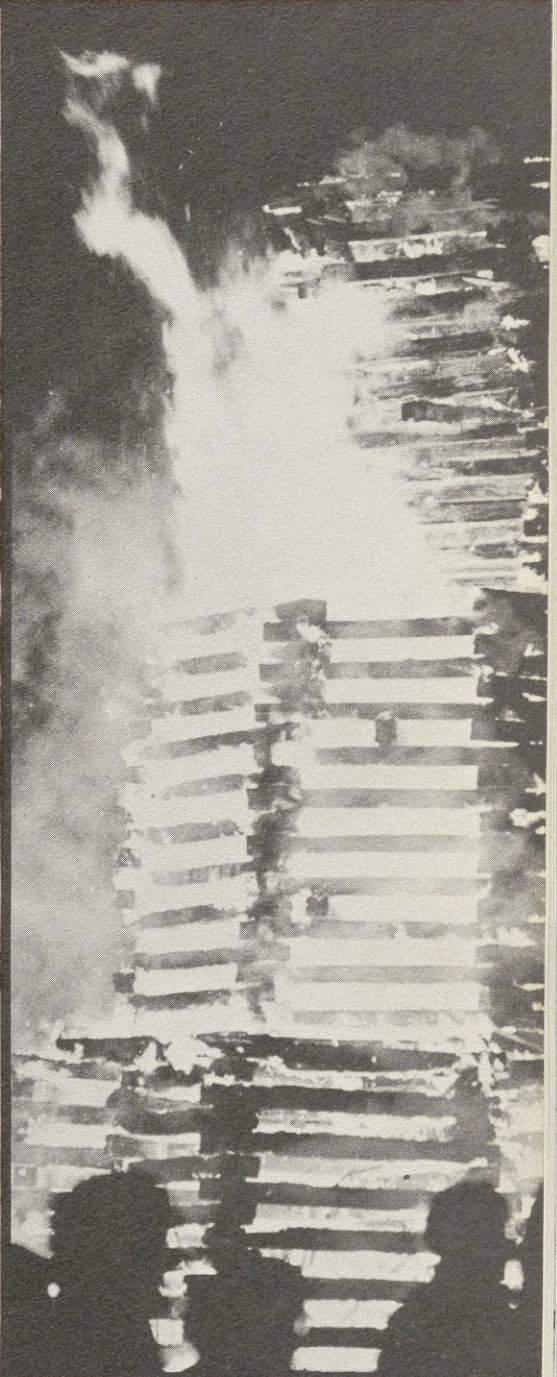
Staff, Echoes, "Volume IX - Issue 1 - January, 1969" (1969). *Rose Echoes*. 120.
https://scholar.rose-hulman.edu/rose_echoes/120

This Book is brought to you for free and open access by the Other Institute Publications at Rose-Hulman Scholar. It has been accepted for inclusion in Rose Echoes by an authorized administrator of Rose-Hulman Scholar. For more information, please contact weir1@rose-hulman.edu.

ROSE ECHOES

ALUMNI MAGAZINE

JANUARY, 1969



Homecoming Issue

ROSE ECHOES

Alumni Magazine



January, 1969 Vol. IX, No. 1

Kent Harris
Editor

In This Issue

Across the Campus	Page 1
Bioengineering at Rose	3
Homecoming '68	6
Class Reunions	10
Minutes of Annual Meeting	12
Rose Sports scene	16
Space Flight His Orbit	18
Class Notes	20
In Memoriam	24

The Cover

Homecoming '68 was filled with tradition—the Frosh bonfire, house displays, the happy hour and much more. Miss Cathy McHugh reigned over the Fightin' Engineers and Rosie was on hand for the big weekend.

Published January, March, May, July, September, and November by Rose Polytechnic Institute at Terre Haute, Ind. 47803. Second class postage paid at Terre Haute, Ind. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized December 13, 1918.

Rose Polytechnic Alumni Association



Robert L. Royer, April '49
President

Executive Officers 1968-69

Robert L. Royer Apr. 49	President
Robert T. Mees '31	Vice President
Anthony G. Blake '31	Secretary-Treasurer

Chairmen of Operating Committees 1968-69

Homecoming	Robert E. Newby '58
Fund Raising	John T. Newlin Feb. '43
Student Recruitment	Owen H. Meharg '54
Rose Tech Clubs	Robert L. Royer Apr. '49
Awards and Recognition	Fred Bogardus '32
Continuing Education	Robert T. Mees '31

Alumni Members of the Board of Managers

Russell E. Archer, Sr. '34	1966 to Annual Meeting 1970
Fred W. Garry April '51	1968 to Annual Meeting 1972



Across the Campus

1969: A Year for Planning

1968 was a tumultuous year for higher education. Students pressed for what they described as "academic freedom" and carried their demonstrations to the point of violence. Many colleges and universities were forced to close their doors temporarily in view of mounting unrest.

Rose Polytechnic was spared such incidence, and proudly marked another year of progress—the largest graduating class for a normal September to June operation, the conferring of the first bachelor's degrees in biological

engineering and numerous improvements in physical facilities at the institute.

Nineteen hundred sixty-eight was a year when Rose opened its doors to more students through the renovation and expansion of 43-year-old Deming Hall. The institute provided for additional classroom space through the remodeling of the former Student Center for use by the administration and marked completion of the project involving the straightening of Lost Creek and improvement of athletic fields adjacent to fieldhouse.

Moreover, the institute gained on-campus residence for 50 more students with the completion of the \$250,000 Alpha Tau Omega fraternity house on the east edge of the campus. Triangle fraternity broke ground for a second house on the proposed "fraternity row."

It was a year of modest expansion at Rose, and paved the way for preliminary planning for large-scale building plans for the next decade.

The institute plans to get started on preliminary plans for the systems information and de-

Terrence R. Barton Named Director of Alumni Affairs...

sign facility, the new laboratory building and a new recreation center in the near future. Rose also will study plans to develop an aerospace engineering curriculum during the early part of 1969, according to Dr. John A. Logan, president of the institute.

The planning of the systems information and design facility and the new laboratory building represent the most encompassing program since Rose moved to its present campus.

Barton New Alumni Chief

Terrence R. Barton assumed the duties of Director of Annual Giving - Director of Alumni Affairs for Rose on Jan. 1.

Barton, who joined the Rose administrative staff in 1966 as Associate Director of Admissions, brings eight years of college administrative experience into the new position.

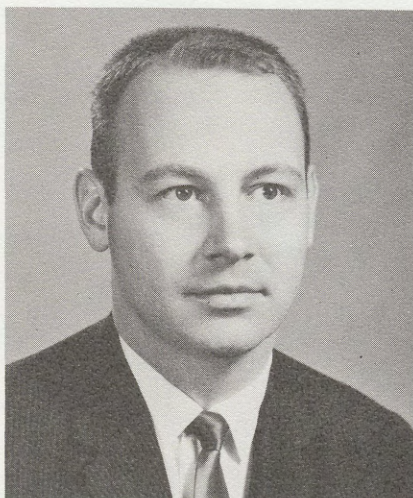
Barton came to Rose from Iowa Wesleyan College, Mt. Pleasant, Iowa, where he had been director of admissions since 1964. Prior to that he was an admissions counselor and assistant to the admissions director at DePauw University.

A graduate of DePauw, he earned his B.A. degree there in 1960, and a master's degree in higher education at Indiana University in 1964.

The Maywood, Ill., native is a member of the American Alumni Association, Association of College Admissions Counselors and Delta Kappa Epsilon social fraternity.

Students Attend Faculty Meeting

Student representatives attended the first faculty meeting in the history of the school in November, setting the stage for



Terrence R. Barton

a series of regular discussion meetings between students and the faculty.

After hearing a brief report by Dr. Logan on some of the activities which the administration is presently engaged, the students took the floor and presented a number of ideas to the faculty. Topics discussed included an Honor Code and Honor System, improved clock and bell system, a new grading system (A+, B+, C+), and the renewal of Tau Beta Pi "Evaluation Poll" of the faculty and the course material being presented.

Bruce Williams, a junior from Evansville, led the discussion on the Honor System, and received favorable comment from the faculty as he stressed the importance of establishing the concept of "going the extra mile" as the foundation for all professional life. He also started that "integrity, morality, mutual trust and faith in each other is the framework upon which an engineer-scientist builds his life."

City Watches Rose Project

The community had favorable comment on television and news-

paper coverage of the interim report of the senior civil engineering project dealing with urban planning.

To approach this project, the senior civil engineering class considered itself a consulting engineering firm which had been asked to make recommendations for the betterment of underdeveloped area in the area (Eleventh to Seventh streets and Poplar to Hulman streets) in Terre Haute.

The students defined the problem in a 12-page interim paper which covered private commercial, governmental and internal community development. But the paragraph which drew the praise was the final paragraph of the closing notes which said, "The problem is one of attitudes, selfishness, and prejudice."

Computer Network Reality

Rose's hookup to the experimental Indiana Regional Computer Network (IRC�) was scheduled to be completed Jan. 15.

When completed the network will allow Rose to become a part of the network of 11 educational institutions linked to the two powerful computers at Purdue University.

The National Science Foundation provided \$428,000 for establishment of the network linked to Purdue's giant CDC 6500 and IBM 7074 computers, which together comprise the greatest computer capacity in the state.

Rose Poly's link with the Purdue computer center is unique inasmuch as it is a computer-to-computer hookup via a sychromesh communications adapter and will allow to take experiment

ATO Moves Into New House to Celebrate 75th Anniversary

with computer-to-computer operations. Other schools in the network are linked to the Purdue center by teletype.

Gamma Gamma chapter of Alpha Tau Omega Fraternity celebrated its Diamond Jubilee—and the seventy-fifth anniversary of social fraternities on the Rose campus—during a special banquet Nov. 15.

Stewart D. Daniels, national president of the fraternity, delivered the keynote address and presented Gamma Gamma chapter with a plaque commemorating the Golden Jubilee.

Founded at Rose on Nov. 15, 1893, the chapter lists more than 950 men as active members over the years and currently has an active membership of 65 young men.

Alpha Tau Omega, the first fraternity at Rose, marked two new items on its list of "firsts" the same weekend when the chapter took up residence in its new quarter-million dollar fraternity house.

The house not only is the first built on the proposed "Fraternity Row" at Rose, but is the first house built in Terre Haute for the sole use by a fraternity.

Designed by architect Scott Wallace, a Purdue ATO, the house incorporates a six-level plan centered around a recreation-chapter room-dining hall complex aimed at utilizing maximum space in the 12,000-square foot house.

Two-man study rooms and sleeping dormitories comprise the wings connected to the central complex. The house, designed for future expansion, will house up to 50 men and contains an apartment for the house mother.



GOLDEN JUBILEE—Stewart D. Daniels, national president of Alpha Tau Omega fraternity, presents a plaque commemorating the fraternity's 75th year at Rose to John R. Grauel, president of the Gamma Gamma chapter at Rose. President John A. Logan, the fraternity's centennial initiate, participates in the presentation.

Rose Men in Who's Who

The 1968 edition of "Who's Who Among Students in American Universities and Colleges" carries the names of 12 seniors at Rose who have been selected as being among the country's most outstanding campus leaders.

Campus nominating committees and editors of the annual directory have included the names of these students based on their academic achievement, service to the community, leadership in extracurricular activities and future potential.

Those selected from Rose are William Kendall Burkart, Cincinnati; Peter K. Doenges, Olney, Ill.; Michael E. Douglas, Crawfordsville; Pete R. Fowler, Terre Haute; John R. Grauel, Findlay, Ohio; John Paul Greve, Jr.,

Tulsa, Okla., and Charles R. Rupp of Indianapolis.

Also, George W. Shaver, Muncie; Melvin A. Smith, Indianapolis; Sidney N. Stone, Madison, Ind.; Anthony J. Tietz, Indianapolis, and J. Joseph Tomlinson of Beech Grove.

Presidents of student body, student congress, Blue Key, two of the six social fraternities and numerous organizations are represented in the 1968 Who's Who list at Rose. Two of these student leaders are captains of the football and basketball teams.

In addition to their role in campus leadership, the grade point average of the twelve selected is 3.0—nearly .5 of a point higher than the all mens' average at Rose.

Biological Engineering...



DR. ROBERT ARTHUR, chairman of the biological engineering department at Rose, instructs graduate student Duck On Kim of Seoul, Korea, on analyzing data on the automatic respirometer. Dr. Arthur holds the patent on the instrument which automatically determines biological oxygen demand. A nationally-known leader in his field, Dr. Arthur will publish the first textbook for biological engineering later this year.

Engineering has always concerned itself with planning for human needs and with improving human environment; therefore, the expansion of the field of engineering to include work in the life sciences is a logical development.

Rose Polytechnic some time ago recognized that in the broad areas of medicine, biology and physiology there are problems of a technical nature that are best solved by engineers. Through this insight the first degree-granting undergraduate department of biological engineering in the nation was launched at Rose in the fall of 1967.

Although the skills and knowledge gained from combining the study of engineering and biology are most readily applicable in the field of medicine (especially in the development of instruments), the engineering student of today who is interested in the life sciences has a much broader range of activities from which to choose. For example, he could become interested in controlling the human environment in space vehicles, building the instrumentation to test artificial heart valves or studying the problems of motion in artificial limbs.

Inasmuch as biological engineering is closely related to environmental health, medicine, bionics, agricultural and human factors engineering, to mention a few, the scope of this area of study becomes more encompassing with each scientific breakthrough.

Biological engineering at Rose is an outgrowth of planning initiated as early as 1962. It grew to "undesigned" degree status in the fall of 1964 and since has been giving Rose a national reputation in biological engineering. National recognition has come through the numerous government and private grants secured by Rose to help support the program, the hosting of national bioengineering symposia and the work of Rose biological engineering faculty members at the national level.

Students not only have the benefit of a program devoted completely to biological engineering, but participate actively in government-supported research. Dr. Robert M. Arthur, chairman of the department, and biological engineering professors

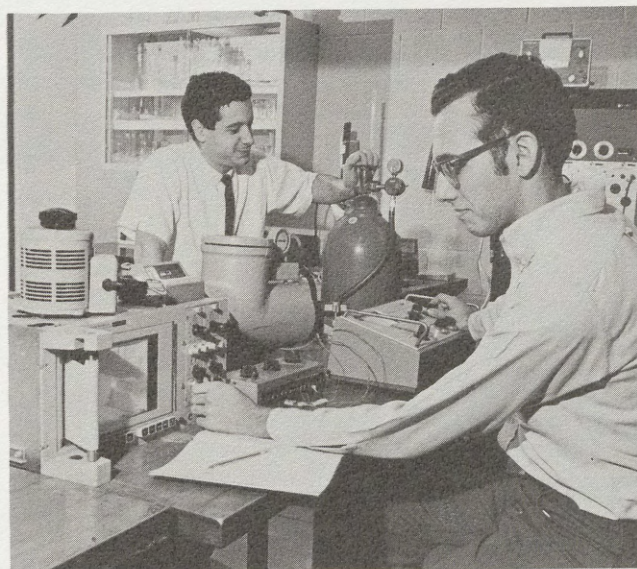
Challenge of the 1970's



DR. BREITMEYER performs preliminary calibrations for research in the visualization of flow through artificial heart valves. Michael Waldon, a junior biological engineering major, holds a valve to be tested.

Dr. Frank B. Freedman and Dr. Michael O. Breitmeyer are currently working on no fewer than five research projects with a total support of \$74,600 in government and private grants.

Dr. Arthur has developed an automatic respirometer to measure the oxygen demand rates of tissue or cell cultures. A number of papers have come out of this research of the last two years. Dr. Freedman, meanwhile, has been investigating the physiological response of isolated lungs to hyperbaric oxygen, a contemporary tool being used in the treatment of certain cardiac and pulmonary diseases, gangrene and cancer. Dr. Breitmeyer is researching the effect of red blood cell shape on a standard technique for cell volume measurement and has received seed money from the Indiana Heart Association to establish a system



DR. FREEDMAN sets up gas analysis system for research project dealing with hyperbaric oxygenation and isolated lungs. Junior Tony Simmons assists Dr. Freedman in setting up the equipment for the project.

for visualization of flow around prosthetic heart valves.

In addition to the support for research, funds for the graduate program (including faculty and staff salaries and graduate fellowships) are provided by the government. Support of graduate work comes from the U. S. Public Health Service, while research monies are provided by the National Institutes of Health, U. S. Department of Interior and National Science Foundation, Indiana Heart Foundation, national and local industry, and the medical profession.

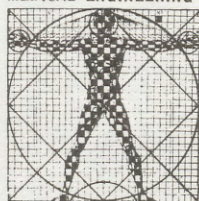
Biological engineering at Rose will add to its national reputation again this year when Dr. Arthur completes the nation's first biological engineering textbook, "Biology for Engineers and

(Continued on Page 23)

ENVIRONMENTAL
HEALTH ENGINEERING



MEDICAL ENGINEERING



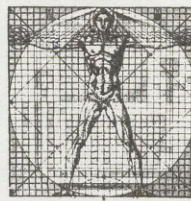
HUMAN
FACTORS ENGINEERING



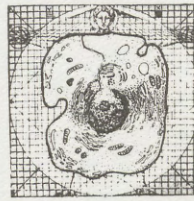
BIONICS



AGRICULTURAL
ENGINEERING



FERMENTATION
ENGINEERING



Homecoming '68



B-r-r-r! Homecoming to Return To Dates In October

Bone-chilling winds and the first snow of the season greeted Rose alumni as they returned for Homecoming '68, a weekend planned around a "Roaring Twenties" theme and, thanks to the weatherman, one perfect for the return of the raccoon coat.

But despite temperatures in the low 30s and driving snow which forced the halftime show of the Homecoming football game into Shook Fieldhouse, more than 400 alumni returned for Homecoming. Heavy student participation pushed total attendance to 2,000 for the big weekend at Rose.

Robert L. Royer, April '49, was installed as president of the Rose Alumni Association at the annual banquet, and in the manner of all good speakers, "warmed up" fellow alumni with the announcement of October dates for future Homecoming weekends.

The 1969 Homecoming is scheduled for Oct. 17-18, with Hanover College of the Hoosier Collegiate Conference providing the opposition for the Fightin' Engineers. Hanover and Illinois College will be the Homecoming foe every other year through 1973, according to Rose's long-range calendar.

Nearly 400 persons attended the banquet in Hulman Memorial Union and those who could turned back the clock to the "Roaring Twenties" as Ned Hanum, '62, and his Lewistown Singers set the tempo of the evening with popular music of forty years ago.

Highlight of the weekend was the presentation of honor alumni awards to five persons who have distinguished themselves in science and engineering.

Honored were Dr. C. Chester Stock, '32, vice president of the Sloan-Kettering Institute for Cancer Research in New York City; Robert Shattuck, '36, vice president and a member of the board of directors of Borg-Warner Corp.; John A. Derry, '29, director of the Division of Construction of the Atomic Energy Commission in Washington, D. C.; and Frederick M. Crapo, '19, retired Muncie industrialist and former vice president of the General Cable Corp., Indiana Steel and Wire Co., Division of Muncie.

Mrs. Mary McDaniel, Hamilton, Ohio, accepted a posthumous award for her husband, Donald McDaniel, '07, former vice president of the Hamilton Foundry and a pioneer leader in the gray iron founders industry.

The Honor Alumni not only distinguished themselves in science and engineering, but have remained loyal to Rose. Crapo and Shattuck are members of the board of managers of the institute, the latter currently serving as chairman of the national business and industry committee for the college. Crapo also has served as chairman of the Annual Alumni Fund.

McDaniel, who served as agent for the class of 1907 from the inception of the position in 1951 until his death last March, attended as many homecomings as any other alumnus. Having celebrated his 60th reunion in 1967, the loyal alumnus missed fewer than 10 Rose homecomings in the 60 years. He and Mrs. McDaniel had attended 23 consecutive homecomings at the time of his death.

HONOR ALUMNI, from top, are Frederick Crapo, John Derry, Dr. Chester Stock and Robert Shattuck.



St. Mary's Beauty Elected Queen of Fightin' Engineers

Miss Cathy McHugh, a sophomore more drama major from St. Mary-of-the-Woods College, reigned as Homecoming Queen as the Engineers met the Earlham Quakers of the Hoosier Conference on Rose Field Saturday afternoon.

The 20-year-old beauty from Corpus Christi, Tex., was crowned Friday night by President John A. Logan during a Blue Key-sponsored pep rally in Shook Fieldhouse.

Finalists serving as her court were Misses Carolyn Lusco of Terre Haute, who works with underprivileged children; Linda Leeke, a secretary from South Bend; Tricia Jones, a St. Mary's freshman from St. Louis, and Cora Hilgeman, a freshman at Wright State University at Dayton.

Following the pep rally, a number of alumni joined the student body for "ceremonies" around the annual bonfire.

Limited to the number of ties to be used, the freshmen were challenged to incorporate design in the edifice for the conflagration. They used four diamonds as the center of the structure and placed four square towers of ties at each corner in coming up with a basic octagonal design.

Afterwards it was pointed out that Rose freshmen have not changed much over the years. The bonfire was some twenty ties higher than the prescribed 40-tie high structure. Thus the 500-tie limit also was "stretched a bit," according to a preliminary report of the matter. The case has been taken under advisement.

Ned Hannum, '62, and his Lewistown Singers of Cleveland, provided the entertainment for the student homecoming activi-



REIGNS OVER HOMECOMING—Dr. John A. Logan places crown on the head of pretty Miss Cathy McHugh during coronation ceremonies Friday night in Shook Memorial Fieldhouse. Miss McHugh, a St. Mary-of-the-Woods sophomore from Corpus Christi, Tex., is Sigma Nu Sweetheart of the year.

ties which followed the bonfire ceremonies.

It was a big weekend for Triangle Fraternity, which repeated as the winner of the Homecoming house display contest with a striking entry entitled "Rosie's Monstrous Machine Cans Conquered Quakers." Constructed on the lawn adjacent to the former Student Center, the winning display served as a focal point for alumni returning for homecoming.

The biggest event of the weekend for the men of Triangle was the symbolic breaking of ground for a new fraternity house on the east edge of the campus. Target date for completion of the house is scheduled for September, 1969.

Contemporary Development, Inc., of Terre Haute has been awarded the contract to build the new Triangle house which will lie adjacent south to the ATO house.

Classes of '18 and '43 Celebrate Special Reunions

Alumni returned in record numbers to attend reunions of classes of Threes and Eights—the classes of 1918 and 1943 celebrating Golden and Silver anniversaries.

Dr. Richard F. Bergmann served as chairman of the '18 reunion at the Terre Haute House. Those attending the dinner were Dr. Bergmann, Leroy Allen and Krieg Failing, all of Terre Haute; Chester Falls, Schenectady, N. Y.; Chauncey McKee, Vincennes; John Mikels, Cuyahoga Falls, Ohio; and Fred Crapo, Muncie, who started with the class but was graduated in 1919 because of service in World War I.

Guests of the class at their dinner included Henry Gray, '17, Bloomington; Joe Engelhard, '22, and Henry Offutt, '22, both of Louisville; Robert Shattuck, '36, Chicago, and Benjamin G. Cox, chairman of the board of managers of the institute.

Carl N. Miller Jr., of Terre Haute served as chairman for the



50th ANNIVERSARY—Members of the class of 1918 who celebrated the fiftieth year out of Rose were (standing left to right) Chauncey McKee, Richard Bergman, Krieg Failing, Chester Falls, John Mikels and Leroy Allen. Seated are Mrs. McKee, Mrs. Failing, Mrs. Falls and Frederick Crapo of the class of 1919.

twenty-fifth anniversary of the class of 1943 at the Sycamore Club.

Thirty-eight members of the February and October classes of '43 attended the dinner—the February class boasting atten-

dance by 24 of the 52 living members of the class.

Attending from the February class were F. G. Berghoefer, Arlington, Va.; G. D. Blakely, Mt. Vernon, N. Y.; R. E. Brown, Ft.

(Continued on Page 20)



Class Reunions



'2848



'2853



'3258



'3263

'248



'253



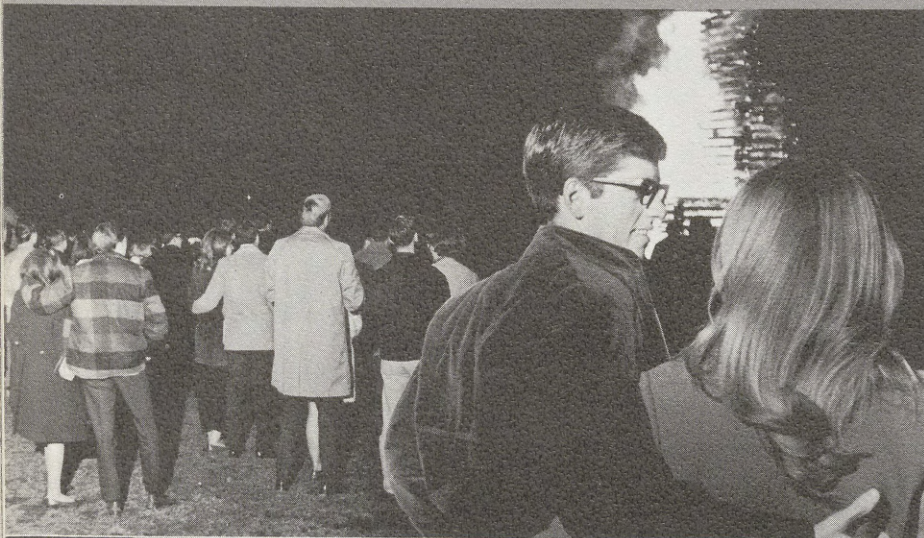
'358



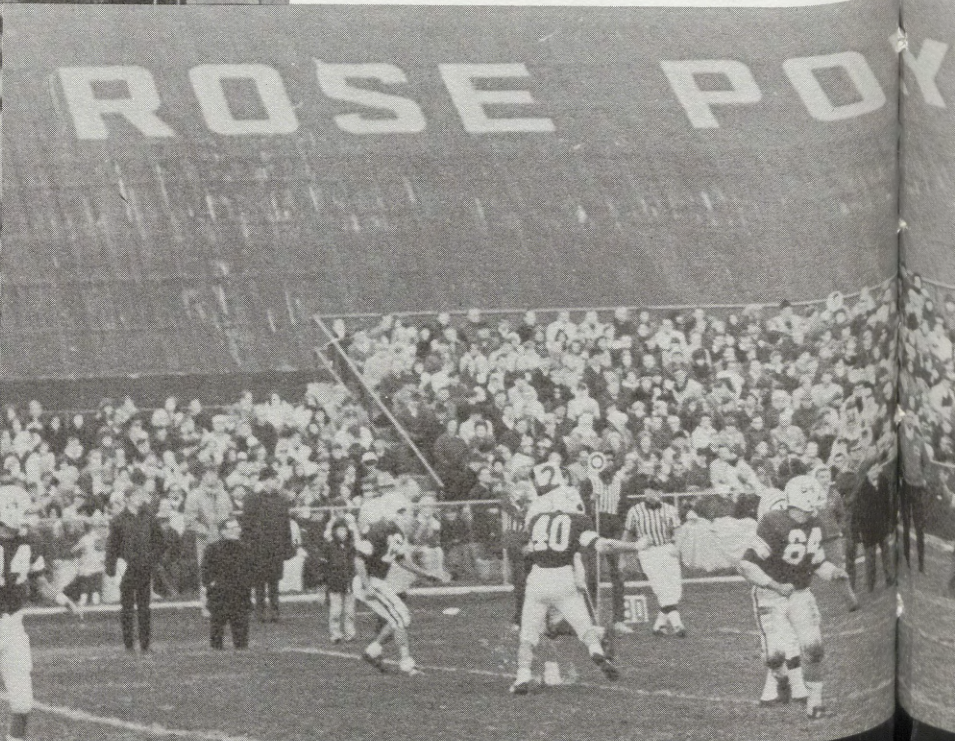
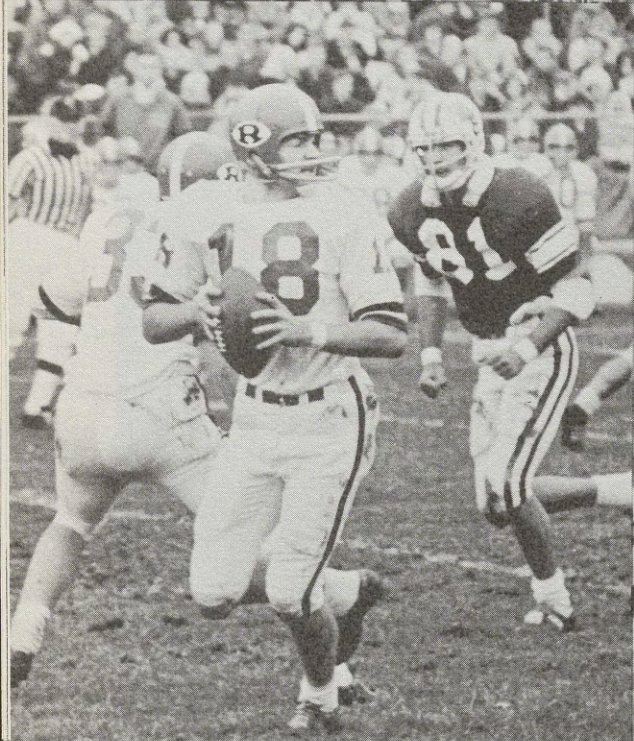
'363



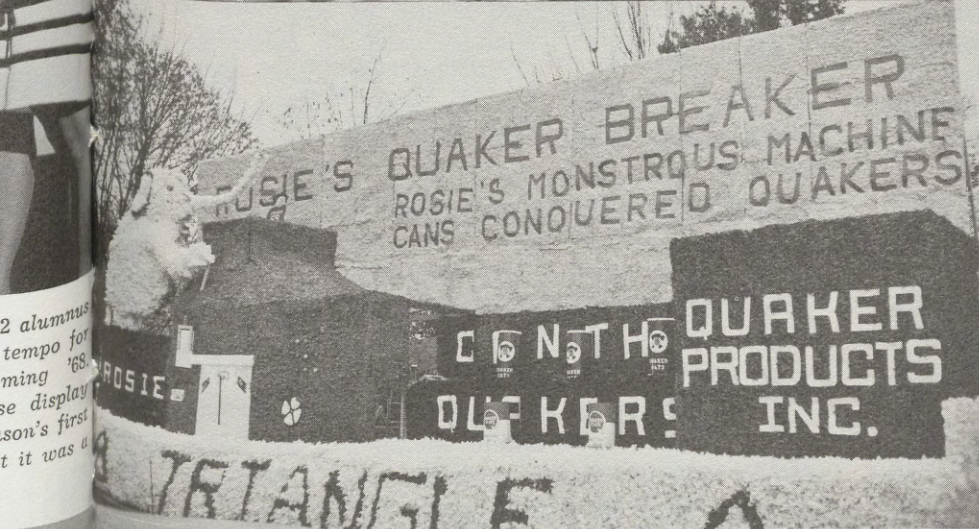
Homecoming '68... Roaring Twenties



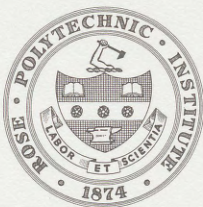
Ned Hannum, (left) a trombone-playing '62 alumnus and his Lewistown Singers set the musical tempo for a Roaring Twenties theme for Homecoming '68. The Triangle fraternity was winner of the house display (right). The Rose Rifles operated in the season's first snow, and alumni shivered in the stands, but it was a fun weekend.



Twins Theme and Weather for Return of Coonskin Coat



Minutes



Of Annual Meeting

Robert Royer President...

40 Rose Alumni Association Business Meeting
36 Saturday - November 9, 1968 - 10 a.m.

The meeting was called to order by President Adam K. Grafe, '25, at 10 a.m. in the auditorium.

The minutes of the meeting for November 1967 were published in the December 1967 Rose Echoes. A motion was made to accept the minutes as published. The motion was seconded and carried by voice vote.

A motion was made and seconded to admit the Class of 1968 into the Alumni Association. Motion carried. President Grafe welcomed this group into the organization.

Next, chairmen of operating committees were called on to submit reports:

(1) FUND RAISING

In the absence of John Newlin, Ronald Reeves made this report. For the first Alumni Fund, following the Capital Fund drive, Mr. Newlin proposes a goal of \$75,000 with approximately 60% of alumni giving.

(2) STUDENT RECRUITMENT

Mr. Owen H. Meharg, chairman, reported. There are now fourteen recruitment chairmen in various Rose Tech Clubs. This step will undoubtedly improve our potential student contacts. The annual Admissions Workshop held at Homecoming is of great assistance. At the Friday, Nov. 8 meeting there were eight of the fourteen recruitment chairmen present.

(3) ROSE TECH CLUBS

Mr. Robert Royer, chairman, reported. An increasing interest in these groups is being shown.

(4) AWARDS AND RECOGNITION

Mr. Fred Bogardus, chairman, reported for this group.

Mr. Bogardus asked the group at the meeting for names of possible candidates for the Honor Alumnus award. Information concerning these people is needed.

ARTICLE VII.

Honor Alumni

Section 1. There shall be a group of alumni of Rose Polytechnic Institute known as "Honor Alumni," whose number living shall not at any time exceed two percent of the total living alumni. An Honor Alumnus shall be one who has been outstanding in (a) loyal, unselfish and meritorious service in furthering the interests of the Institute or, (b) in contributing to the national interest of our country, or (c) professional achievement.

Section 2. Suggestions as to possible candidates for "Honor Alumni" awards may be tendered to the Executive Committee in writing, with statement of qualifications, by any alumnus, member of the faculty or member of the Board of Managers of Rose Polytechnic Institute.

NOTE—Suggestions for possible candidates for Honor Alumni Awards should be sent to: Anthony G. Blake, Rose Polytechnic Institute, 5500 Wabash Avenue, Terre Haute, Indiana 47803.

(5) CONTINUING EDUCATION

In the absence of Mr. Howard Irvin, Mr. Robert Mees reported. About 35 participants were present at the 3rd annual Alumni Institute which was held on campus Nov. 8. This annual event is very much worthwhile and it is hoped we can continue improving the attendance.

Russell Archer, an alumni member of the Board of Managers, reported on new officers of the board and general board action during the year.

Under the order of new business Mr. Royer read the results of an official letter ballot sent to all alumni on July 30, 1968.

ELECTION OF OFFICERS

President Grafe asked for the report of the election committee. The results of this election, reported by Mr. Blake, were:

Vice President for 1969

Robert T. Mees - Class of 1931

Alumni Representative Board of Managers
1969 - 1970

Fred W. Garry - Class of 1951

President Grafe called for election of a Secretary-Treasurer of the Association. It was moved and seconded that Anthony G. Blake be reelected to this office with the usual honorarium. The motion was carried.

Robert Mees Elected Vice President of Association

The following names were presented as recipients of Honorary Doctorates at Commencement—June 1968.

Lix DaCunha - Class of 1918

Fred Garry - Class of 1951

Burt F. Raynes - Class of x-1937

James B. Reswick - Case Western Reserve University

Paul Chenea - Director of General Motors, Research - June 1968 Commencement Speaker

Upon motion and second these individuals were proposed as Rose Alumni Association members. The motion was carried.

President Grafe noted that several eligible non-graduates have expressed interest in the Alumni Association. According to the constitution names of these men must be presented to the Executive Committee one month prior to the next Annual Meeting for nomination to membership in the Association. President Grafe urged the presentation of the names of potential members as soon as possible.

ARTICLE III.

Section 3. Non-graduates of Rose Polytechnic Institute who have attended that Institute for not less than one year with a creditable record, and who have been recommended for pre-graduate membership by the Executive Committee, may become pre-graduate members by vote of the majority of the members present at any annual business meeting after their class has been graduated. The Executive Committee may recommend only individuals who have been nominated in a communication addressed to them in writing at least one month before the annual meeting by three members having the right to vote. Pre-graduate members shall pay dues as members and shall have all the rights of members except that they shall not hold office.

NOTE—Recommendation for Rose Alumni Association membership for non-graduates should be sent to: Anthony G. Blake, Rose Polytechnic Institute, 5500 Wabash Avenue, Terre Haute, Indiana 47803.

A lengthy discussion followed with reference to the attendance of wives at the annual banquet. Several alumni, Don Dekker, '61; William Nicewanger, '63; Max Goodwin, '63; Dan Goodwin, '66; Herman Moench, '29; J. Englehart, '22; and R. T. King, '65, felt that since a resolution had been

passed at the 1967 annual meeting which stated that wives would not be asked to the banquet, that the action of the Executive Committee in presenting a letter ballot in July 1968 was out of order. In this letter ballot was an amendment to the By-Laws with reference to banquet guests in which wives were included as guests. This amendment was passed overwhelmingly (924-40).

Mr. Royer, vice president, summarized the Executive Committee actions as follows:

Prior to the 1967 meeting an alumni poll was conducted concerning several aspects of the alumni banquet. The general opinion in this poll was that wives should be invited to the banquet. It must be understood that this was a poll, not a vote. At the fall meeting in 1967 a proposal was adopted to exclude wives from attendance at the banquet. This obviously presented a conflict which needed clarification. It was therefore decided by the Executive Committee to present to the alumni as a whole an amendment (along with others) stating that wives would be asked to the banquet unless their attendance precluded the attendance of seniors. A covering letter accompanied this ballot attempting to clarify the situation. As stated before this amendment was passed 924 to 40.

Several of the alumni felt that much of the votes for attendance of wives came from those who never attended a homecoming banquet. It was felt that a clearer explanation of the action at the 1967 meeting should have been given to all alumni at the time of presentation of the ballot.

Since it was obvious that no further action would be taken concerning the 1968 banquet, Mr. Grafe asked that interested alumni send in letters requesting changes in the By-Laws with regard to banquet guests. Upon receipt of such letters, action would be taken.

President Grafe reported that in the future Homecoming would be held in October alternating between the third and fourth weekends. Next year the date will be Oct. 18 and 19.

Meeting adjourned.

ANTHONY G. BLAKE, '31
Secretary-Treasurer

Engineers Ready to Roll

Remember how close Parnelli Jones came to making auto racing history in his sleek turbine-powered machine at Indianapolis two years ago?

Others have come even closer to victory before misfortune of a flat tire or engine failure on the last few laps of the Indy grind ruled out a trip to Victory Lane.

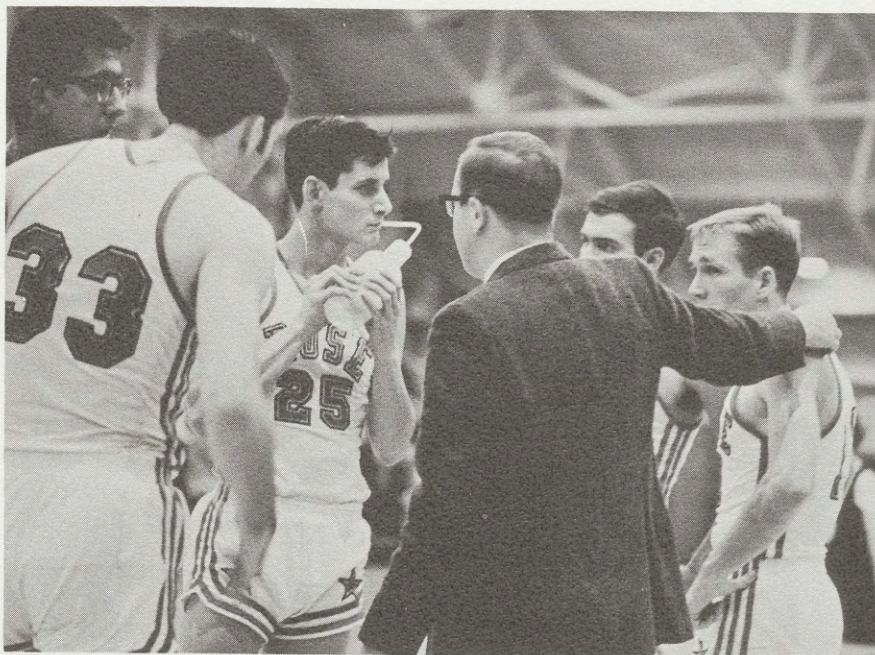
Coach John Mutchner and the Engineer basketball team know just how Jones and others must have felt following the race. Running out of gas on the last lap, so to speak, has been the Engineers' major problem on the court during the early season.

The Engineers, who entered the Christmas break with a 2-5 record, have been in every ball game and have given the likes of Berea of Kentucky and Washington University of St. Louis quintets more than they have bargained for until the crucial last three or four minutes.

It is the kind of problem that is not easily solved, but Mutchner, after watching his team play its best game of the season in taking Washington of St. Louis to the wire in an 85-78 loss on the road, feels his team has jelled into a unit.

"They were much bigger and had considerable talent," Mutchner said following the game. "But we outhustled them and outplayed them. Barring injury or illness, I'd say we're ready to go."

The performance against the largest (6-6 average across the front line) and perhaps best team on the schedule was impressive—doubly so in view of the fact it came after layoff of a week for first quarter finals, a period



KEEP 'EM RUNNIN'—Coach John Mutchner instructs his small, but hard-running ball club to "run some more" during a timeout against Principia in Shook Fieldhouse. Starting quintet (left to right) consists of Dimitri Cordero, George Shaver (33), Don Ings (25), Mutchner, Tom Butwin and Barry Jenkins, the 5-9 guard who has sparked Rose since his first start just prior to the first-quarter break.

which alumni will recall as not particularly stimulating.

The most prominent factor in Mutchner's optimism was the back-to-back performances by junior guard Barry Jenkins, a 5-9 hustler who pumped in a total of 45 points in his first two games as a starter.

It was evident from his first start that Jenkins came to play. In addition to the 25 points against Principia, he stole the ball seven times and forced six tieups on the defensive end of the floor. But this is not all—the spirited guard grabbed off eight rebounds and added a tipin which stunned his 6-6 defenders.

Don Ings, a 6-1 guard moved to forward in making room for Jenkins in the backcourt, continues to lead the Engineer attack

with a 30-point scoring average. Senior captain George Shaver (6-4) is averaging 15 points and as many rebounds from his center slot while sophomore guard Tom Butwin (5-11) is averaging 14 points per game.

One of the most interesting ball players is starter Dimitri Cordero, a 6-7 sophomore who was introduced to the hoop game just three short years ago. The son of an Indiana University exchange professor from Panama, Cordero needs only experience to become "a great one," according to Mutchner.

Improved play by the Engineers and the return of Jim Tucker (6-1) and Don Johnson (6-3) should bolster Rose's chances after the break. Tucker, sixth man on last year's 18-7

Little Men Put Spark in Run, Run, Run Offensive Attack

team, is rounding into form after sitting out with a broken collar bone suffered early this fall in a a fraternity touch football game.

Prior to the first-quarter break Rose had defeated Principia (107-89) and Blackburn (112-89) while dropping decisions to Washington of St. Louis, Berea (98-86), St. Benedict (104-99), Illinois College (77-70) and Prairie College Tournament winner Iowa Wesleyan (80-65).

The Engineers will hit the road for four out of five games in January before hosting the Rose Invitational Tournament pitting Wabash, Centre, Principia and Rose on Jan. 24-25.

Four Gridders Honored

The Engineer football team took more than its share of lumps in the Fall, but obviously got in some good licks of its own.

Based on balloting by league coaches, four Rose football players were named to the 1968 Prairie College All-Conference team.

Pete Doenges, a 225-pound senior tackle and defensive captain, who incidently is a "high honors" student, president of the student body and editor of the *Technic*, repeated for a second time. Doenges received District All-NAIA mention in 1967.

Roger Ward, a 175-pound tailback, made the all-league offensive team for a second year.

RUN TO NOWHERE—Halfback Roger Ward (23) returns a punt 65 yards during the Homecoming game tagains Earlham. It would have been a different ball game had Ward's brilliant run not have been nullified by a clipping penalty. Ward, a sophomore, led Rose in scoring, rushing and total offense.

Ward, who led the Engineers in everything this past season, was an overwhelming choice as a freshman last year.

Another sophomore, Dennis Smith, nailed down a tackle spot on offense, while freshman Norm Klein was one of the three outstanding linebackers chosen by coaches.

Freshman end Dave Burgner received honorable mention.

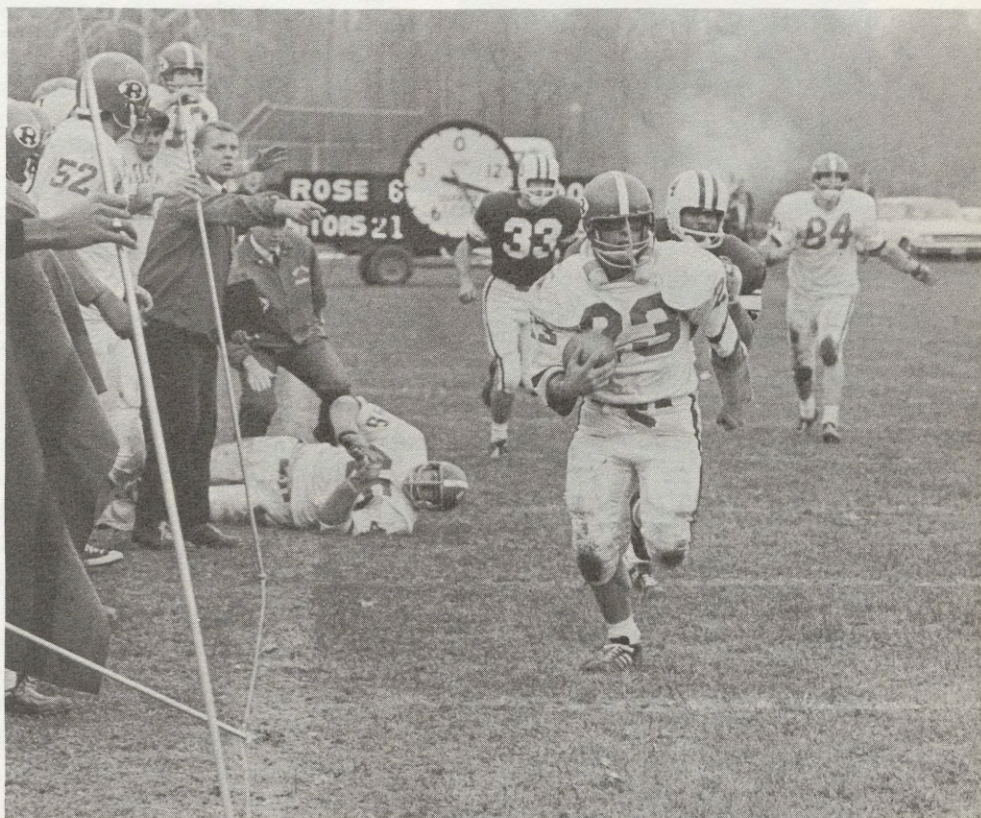
Coach Bob Bergman's predominately freshman ball club did a great deal of growing up in '68, and with the likes of Ward, Smith, Klein and Burgner heading a list of 25 returnees, the football picture should be brighter next Fall with an opener at home and October Homecoming.

Coach Jim Carr's cross country team finished with a 3-3 season against the likes of competition such as Butler and Wabash.

The Engineer woods runners will lose No. 1 runner Larry Lynn and dependable Larry Olsen to graduation, but will still have six returning lettermen from which to field a squad.

Moreover, no fewer than three stellar prep performers have applied and paid their deposits to attend Rose next Fall.

Coach Carr will build his '69 squad from a nucleus of co-captains Bob Childs and Bob Rollings and lettermen Jack Arney, Bob Schacht, Greg Kinney, Bob Rollings and Greg Schutzke.



Space Flight His Orbit

If you ask space age scientists who among them deserves great honors, they will name Dr. Abe Silverstein, a Rose alumnus who has been honored many times "for developing the free world's first space flights and for developing liquid hydrogen rocket fuel."

Dr. Silverstein, a 1929 alumnus, NASA's first director of space flight programs and currently head of the NASA-Lewis Research Center at Cleveland, has won another national award for his work—this time the \$10,000 Rockefeller Public Service Award.

The 60-year-old Native of Terre Haute, who is completing his fortieth year of government service, was selected for the award in the science, technology and engineering category and was honored at a presentation in Washington, D. C. on Dec. 4. It was a fitting award for his fortieth year in government service.

During his career Dr. Silverstein has made important contributions in the field of aeronautics and of jet engine propulsion for aircraft and rocket engine propulsion for spacecraft. The world would not be gasping at spectacular scientific gymnastics by Apollo, Surveyor, Ranger, Mariner, Tiros and all if it were not for the heroic accomplishments of Dr. Silverstein.

As NASA's first director of space flight programs he provided the leadership and top level management of the first manned space flight program, Project Mercury, and the many successful unmanned satellites during the first three years of the space program.

After graduating from Rose with a degree in mechanical engineering, Dr. Silverstein went to work as a \$2,000-a-year junior engineer with the National Advisory Committee for Aeronautics. This was the predecessor of the space agency that now pays him a super-grade salary for heading a staff of 5,000 and guiding the research and development of advanced propulsion systems for supersonic aircraft and space vehicles, and space power generating systems.

During the 1930s Dr. Silverstein was at the committee's Langley (Va.) Aeronautical Laboratory. There he directed wind tunnel research that resulted in higher speed performance for combat planes built during World War II. In 1943 he moved to the NACA-Aircraft Engine Research



DR ABE. SILVERSTEIN holds models of the space capsule manned by astronauts in lunar exploration.

Laboratory at Cleveland as chief of the engine installation research division. He became chief of the Wind Tunnel and Flight Research Division there in 1945.

Appointed Chief of Research at the Cleveland facility in 1949 and associate director of the center in 1952, Dr. Silverstein was transferred to Washington in 1958 where he helped plan the organization and programs of the National Aeronautics and Space Administration and subsequently was named Director of the Office of Space Flight Programs when that agency was established by NASA.

Reflecting on the future of the space age and the need for increasing numbers of dedicated young people to work in government service, the Lewis Research Center chief contends there are "enormous, challenging problems" which, he says, will require "imaginative solutions."

"They may even be beyond use, and perhaps man cannot encompass them, but we certainly should take a shot at them," he adds. "The problems are no longer small, and short-term solutions are not going to work. We will have to look far ahead."

3 Alums New Division Chiefs For Major U.S. Corporations

Three Rose graduates—Fred W. Garry, Howard H. Irvin and John A. Cushman—have been promoted to divisional president or vice president positions by three of the nation's leading corporations.

Garry, a '51 alumnus who was elected as an alumni member of the Rose Poly board of managers during Homecoming, was elected Vice President-Aircraft Engine Technical Division of General Electric, one of the largest engineering organizations of the company the week before Homecoming.

Irvin, a member of the February '43 class, became president and general manager of the Marbon International Division of Borg-Warner's Chemicals & Plastics Group, a division which oversees foreign plants, sales and plastics processing and technology licensing.

Cushman, a second-generation Rose graduate of the class of 1935, was promoted from manufacturing director to divisional vice president of the Film Operations, American Viscose Division of FMC Corporation.

For Garry, a Heminway Medal winner with a perfect 4.0 grade point average for four years at Rose, the promotion followed by less than a year his appointment as Divisional General Manager when the former GE Flight Propulsion became the Aircraft Engine Group.

Garry has responsibility for managing the development engineering effort applied to all commercial and military engines and their derivatives, advanced engines, engine studies, and demonstrator programs. He provides for design, development and research in engineering state-of-the-art improvements in support of Aircraft Engine Group product departments, for component technology develop-

ment, and for materials research and development.

The Aircraft Engine Technical Division which he heads comprises approximately 6,400 employees, of whom more than 2,000 are engineers, located primarily at Evendale, Ohio, and Lynn, Mass., plants of the group.

A flight training instructor and fighter pilot in the Marine Corps during World War II, Garry joined GE in 1951 as an engineer on the J47 engine. Subsequently, he has held a wide variety of engineering and managerial assignments and was manager on three major projects since 1963.

Born in Munich, Irvin grew up in the days of Hitler's rise to power. He went to engineering school there as a teenager and worked in an auto garage to gain practical experience.

When he was 19, distant relatives in the U. S. helped him get a visa, and he left Nazi Germany to work on a farm in Virginia. A year later, in 1949, he sent for his parents and was admitted to Rose. Four years later he graduated in chemical engineering.

After a short stint in the steel industry, Irvin joined Marbon, then a company of 40 employees. As a researcher 25 years ago, Irvin got in on the ground floor in the development of acrylonitrile - butadiene - styrene. When Marbon developed Cyclocac, a moldable ABC resin, Irvin urged the company into international markets.

Irvin then convinced Marbon to set up Cyclocac operations abroad. The company's first overseas plant came onstream at Grangemouth, Scotland, in 1963. A year later, Marbon and Ube Industries, Ltd., opened a plant in Japan (Marbon ownership: 49 per cent). A wholly owned plant came onstream in the Netherlands in 1966 and a fourth international plant opened last month in Australia.

Cushman will continue to be located in Philadelphia as manufacturing director of Film Operations, a post he was named to in January 1968.

Since joining American Viscose in 1941 as a project engineer, Cushman also has served in numerous engineering capacities including chief plant engineer at Lewistown, Pa.

Prior to his promotion in 1968, he has served as manager of the Marcus Hook, Pa., film plant.



Fred W. Garry



Howard H. Irvin



John A. Cushman

FLASH

William J. Ennis, a 1953 Rose alumnus, was elected president of the city council of Terre Haute Jan. 6.

Ennis, a Republican, was elected to the city council two years ago but had to fight through the courts to be seated on the then predominately Democrat council.

Class Notes

'15

ED J. HEGARTY, has published his twenty-second book on management and human relations. His new book, *Making What You Say Pay Off*, is a result of a twenty-year study of the language we use in speaking.

The book diagrams a practical plan of building a powerful speaking vocabulary and the ability to get to the heart of the problem through speech.

In addition to publishing the new book, three translations were made on Hegarty books in 1968.

The latest book, published by Parker Publishing Company, West Nyack, N. Y., may be ordered from Hegarty at 332 Ruth Avenue, Mansfield, Ohio 44907.

'23

RALPH B. BENNETT has retired from General Electric after 45 years with the company. At the time of his retirement March 1, he was application engineer for the Metal Industry Systems Engineering department of G.E. in Cincinnati.

'26

DANIEL R. WERNER has retired after 39 years and eight months of service with the American Telephone and Telegraph Company. At the time of his retirement on March 1, Werner held the title of Senior Engineer in the Western Area Office at Kansas City, Mo. His retirement address is 24 North Richmond Avenue, Lehigh Acres, Fla. 33936.

'27

CHARLES H. HUNNELL (x-'27) retired as chief of the Division of Construction of the Indiana State Highway Commission after 40 years of service with the commission on Nov. 30. Prior to employment with the Indiana Highway Commission, he worked in Costa Rica on the engineering staff of the United Fruit Company.

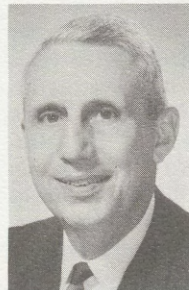
BAIRD F. WEST retired from the position of supervisor of travel promotion for Eastman Kodak Company as of Jan. 1. His current address is 84 Briarcliffe Road, Rochester, N. Y. 14617.

'34

HOWARD C. BARNES has been elected as assistant vice president-engineering of the American Electric Power Service Corporation of New York. Barnes is deputy chief engineer of the AEP Service Corporation, a part of the seven-state American Electric Power System, which is the nation's largest investor-owned producer of electrical energy. Barnes joined the AEP in 1939 as an engineer with the Ohio subsidiary and was transferred to the New York Headquarters in 1944. He became head of the division in 1961 and deputy chief engineer in 1966.

'36

WARREN S. SENTMAN has been named sales manager of the Processed Corn Department



of the Spencer Kellogg Division of Tectron Inc., in Kansas City, Mo. Sentman, who previously was vice president and secretary to the Miner-Hillard Milling Company in Wilkes-Barre, Pa., joined Spencer Kellogg in 1967 as a project engineer in Buffalo, N. Y.

Corn Department of the Spencer Kellogg Division of Tectron Inc., in Kansas City, Mo. Sentman, who previously was vice president and secretary to the Miner-Hillard Milling Company in Wilkes-Barre, Pa., joined Spencer Kellogg in 1967 as a project engineer in Buffalo, N. Y.

CLASS REUNIONS

(Continued from Page 9)

Wayne, Dr. Darrell Criss, Terre Haute; P. M. Gallatin, Brookfield, Wis.; R. A. Halthaus, Naragansett, R. I.; C. C. Huggins, Dayton, Ohio; Howard H. Irvin, Chicago; A. W. Ker, Buffalo, N. Y.; J. L. Loser, Indianapolis; J. E. Metz, Indianapolis; Carl N. Miller, Terre Haute; R. W. Mitchell, Oklahoma City, Okla.; R. C. Mott, Chicago; John T. Newlin and R. R. Pease, both of Terre Haute; W. G. Prescott, Columbus, Ohio; Richard H. Raab, Baltimore, Md.; Harmon Rose, St. Mary-of-the-Woods; C. T. Thomas, Dallas, Tex.; R. W. Van Kempema, Markham, Ill.; W. T. Weinhardt, Dallas, Tex.; J. Ww Welsh, Indianapolis; and W. A. Yoder of

Scottsdale, Ariz.

Members of the October class attending the reunion were K. R. Allison, Louisville, Ky.; R. K. Drake, Hendersonville, N. C.; G. A. Edwards, Greenwood; R. C. Ellsworth, Columbus; H. D. Frye, Owens, Ill.; J. R. Garrett, Darien Center, N. Y.; W. R. Kniptash, Indianapolis; Raymond Kopan, Newark, Ohio; Donald T. Lo, Honolulu; J. F. Murphy, Cincinnati, Ohio; F. W. Peak, Greenwood; J. F. Pfrank, Arlington Heights, Ill.; J. H. Shultz; and J. M. Valentine of Greenwood.

Following the banquet the class voted to give a surplus of \$75.03 from the dinner to the Rose Alumni Fund.

'37

T. N. WELLS, assistant business manager for the past year, has been named business manager for the University of Florida. A University of Florida employee for the last 18 years, Wells joined the institution in 1950 as manager of the data processing section of the Business Office. He was promoted in 1958 to director of the Purchasing Division of the university.

'40

AVERY C. KELSALL has been elected vice president and director of Commonwealth Associates Inc., Jackson, Mich., international firm of engineers, consultants and architects. He has been director of CAI's Systems and Consulting Engineering Division since May 1967. Prior to joining CAI, Kelsall was director of design engineering for Girdler Corporation, Louisville, Ky.

DR. LLOYD O. KRAUSE has taken a position as technical advisor in the Advanced Systems Development Department, Autonetics Division of North American Rockwell in Anaheim, Calif. Having earned his Ph.D. in electrical engineering from Syracuse University in 1966, Dr. Krause left General Electric Company after 27 years to accept the west coast position. At the time he left GE, Dr. Krause was consulting engineer for the Electronics Systems Laboratory in Syracuse.

'43

RICHARD H. RAAB has been appointed vice president and general manager of the Architectural Medical Products Division of Eastern Products Corporation in Baltimore. Raab has been associated with Eastern Products for the last ten years as assistant sales manager and national sales manager.



'44

JAMES H. HANES, director of The Dow Chemical Company's Corporate Labor Relations, has been appointed manager of Industrial Relations for the U. S. Area of Dow. Hanes has been director of corporate labor relations since last April and has also been assistant to the general counsel in the legal department in charge of legal matters pertaining to industrial relations. Hanes first joined Dow in 1946 as a chemical engineer but left two years later to enroll in the University of Michigan Law School. Upon graduation with a J. D. in 1951 he returned to Dow in the legal department.



'47

ROBERT A. WEINHARDT has taken a position as Director of Manufacturing with the Cedar Rapids (Iowa) Engineering Company. Weinhardt formerly was associated with Collins Radio Company in Cedar Rapids as director of the Special Products Manufacturing Division of the company.

'48

GEORGE R. McNEIL has taken a position as stockbroker and investment executive with Goodbody & Company in Winter Park, Fla. McNeil formerly was associated with Hornblower and Weeks-Hemphill, Noyes as a stockbroker in Prospect, Ill. His new address is 920 Longhaven Drive, Maitland, Fla. 32751.



ALUMS REMINISCE—Fred J. Bogardus (left) Dean of Tri State College, chats with classmate Dr. C. Chester Stock, '32 (center) and John A. Derry, '29, in the lobby of the Main Building. Stock and Derry were presented Honor Alumni awards during Homecoming. Bogardus served as chairman of the committee which selected them for the honor.

'49

JOHN V. TITSWORTH has resigned a position as vice president of Lear Jet Industries to join Control Data Corporation as general manager of the Normandale Division in Minnesota. Titsworth is in charge of major facilities in Minneapolis and Redwood Falls, Minn., which covers design, development and production of peripheral equipment for Control Data computers.



HELP!

Your Alumni magazine can always use class notes. Please send your notes of interest (new job, promotion, honors, new child, etc.) to Rose Echoes Alumni Magazine, Rose Polytechnic Institute, Terre Haute, Ind. 47803.

RALPH L. TRIMBLE has taken a position as staff engineer in the International Production Department of the Marathon Oil Company in Findlay, Ohio. Having joined Marathon in 1949, he had worked for the Oasis Oil Company in Tripoli, Libya for the last nine years. Oasis is a partially owned affiliate of Marathon.

'50

ALLAN T. JUNKER has joined the staff of KPA Computer Techniques, Inc. at Large, Pa., where he is primarily concerned with the design and stress analysis of nuclear power plant components. Junker, who for some time has been a private consultant to the nuclear industry, cited increasing demands of the technological explosion for leaving private consulting for the KPA position. His current address is 668 Beverly Road, Pittsburgh, Pa. 15243.

'55

JOE LOUIS BILLMAN has joined the staff of the Los Alamos Scientific Laboratory in Nevada to work in the Test Division. Formerly associated with Westinghouse Electric Corporation, Billman was most recently employed at the company's Idaho Falls, Idaho operation.

WALTER C. PURCELL has been transferred to the Physical Research Laboratory of the Bureau of Research and Development for the State of Illinois. Purcell moved to the Ottawa, Ill., state laboratory from the District Five design office of the State of Illinois Division of Highways. His promotion gives him the responsibility of a research project on determining the skid resistance of pavement surfaces and finding new methods of improving this skid resistance.

'56

MAJ. ERNEST W. CADE received his second award of the Army Commendation Medal during ceremonies Aug. 23 at the Aberdeen Proving Ground, Maryland. Maj. Cade received the award for meritorious service during his last assignment as Training Officer in the Office of Operation, U. S. Army Missile and Munitions Center and School, Redstone Arsenal, Alabama from March 1967 to June 1968. He received his commission through the ROTC program at Rose.



WALTER JOHANNINGSMEIER has been appointed department manager of the newly-formed Special Studies Department of Wolf Research and Development Corporation in Bladensburg, Md. Following his graduation from Rose, he earned a J.D. degree from George Washington University and has over seven years experience in information sciences and systems analysis. Johanningsmeier has been with WOLF for two years, during which time he has held various managerial and technical positions. The new department he heads is responsible for developing capabilities to apply scientific methods to the investigation of special problems involving data collection, processing, storage and retrieval.

'57

JOHN L. BLOXSOME has been named project engineer-manager of onput/output for the programmable terminal interchange complex department, Systems Development Division, of IBM at Poughkeepsie, N. Y. Bloxsome, who has been with IBM in the Poughkeepsie area since graduation,

formerly was a staff engineer for the airline reservation systems of the company.

'58

RONALD G. REEVES, assistant director of development at Rose, has been elected national secretary of Alpha Tau Omega fraternity. Reeves, elected Worthy Grand Keeper of the Annuals, at the national convention in Scottsdale, Ariz., has served the fraternity as Chief of Province 17 of Indiana from 1961 through 1968.

'60

KENNETH H. BROWN JR. has joined IBM in Indianapolis in a position as marketing representative in data procession. Brown joined IBM after five and one-half years with Signode Corporation in Chicago. He had worked in tool design for two and one-half years and spent two years in sales engineering, specifically in sale to the steel industry. His new address is 6 Lans Downe Lane, Carmel, Ind. 46032.

DONALD W. MOYER has been promoted from supervisor to engineering manager of the Mechanical Design Division of Midwest Aero Industries Corporation of Royal Oak, Michigan. He is responsible for the development and design of rotating systems, bearing and seal test rigs and administration of the testing programs. Before joining MAIC a year ago, Moyer had developed similar test programs for Pratt & Whitney.

'61

DON L. DEKKER has been awarded a National Science Foundation science faculty fellowship to work toward his doctorate in mechanical engineering. Prof. Dekker, who has been a member of the mechanical engineering staff at Rose since 1965, will begin work on the Ph.D. at Stanford University next September. Total amount of the grant is more than \$17,000 over a period of 15 months. Prior to returning to Rose, Dekker was employed by Sandia Corporation, Livermore, Calif., in design and development of the non-nuclear portion of bombs of warheads.

DANIEL V. KINGERY has been promoted to Sales manager of the C. T. S. Corporation plant in Sandwich, Ill. He formerly was a sales engineer for the company.

RONALD HIGGINBOTHAM has taken a position as a member of the professional staff at the TRW Systems Group at the company's Houston Operation. Prior to the move, Higginbotham had been a member of the electrical engineering faculty at the University of Connecticut.

MARSHALL D. GARINO has been transferred to the Company Marketing Division of Lockheed Missiles and Space Company in Burbank, Calif. Garino, who formerly was a systems test engineer for Lockheed at Santa Barbara, is technical supply representative in his new position. His new address is 10828 Pismarck Ave., North Ridge, Calif. 91324.

'62

RICHARD J. LANDENBERGER has been named manager of the newly formed Midland, Tex., installation of Com-Share Southern Inc., a Houston-based computer time sharing complex. Landenberger went to Com-Share from Texas Instruments in Dallas, where for the last two years he had worked as financial analyst and manufacturing engineer on the Shrike Missile program, and most recently as controller in the advanced circuits department. Landenberger earned an M.B.A. in marketing and finance at the University of Illinois following his graduation from Rose.

'63

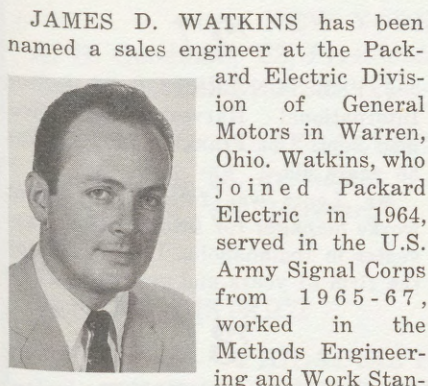
DAVID L. ROBERTS has been promoted to technical service engineer of the Girdler Catalysts unit of Chemetron Corporation in Louisville. Roberts was a process engineer for a chemical construction company prior to his promotion. Roberts is married to the former Linda F. Caudill of Louisville. They have one child, Dana Carole, 1, and reside at 1840 Trevillian Way, Louisville.

ANDREW M. SPANGLER has been named construction manager in the Bloomington district office of Indiana Bell Telephone Company. Spangler began his telephone career in Indianapolis and has also served at Greenwood as a service supervisor.

JACK HOBBS completed his Ph.D. in chemistry at the University of New Hampshire Oct. 10. He currently is working on a National Academy of Science post-doctoral position at the Army Materials and Mechanics Research Center, Watertown, Mass.

'64

ROBERT W. BONSON is a district sales engineer for Motorola Semiconductor Products, Inc., in the upstate New York area. Formerly associated with Commonwealth Edison in Chicago, Bonson's new address is 24 Wexford Road, DeWitt, N. Y. 13214.



JAMES D. WATKINS has been named a sales engineer at the Packard Electric Division of General Motors in Warren, Ohio. Watkins, who joined Packard Electric in 1964, served in the U.S. Army Signal Corps from 1965-67, worked in the Methods Engineering and Work Standards Department until last February when he transferred to the Sales Department.

JAMES W. SCHULZ has taken a position as sanitary engineer for the New Hampshire Water Supply and Pollution Control Commission in Concord. He accepted the position after completing his master's in civil engineering at Purdue University Oct. 1.

'65

DAVID G. GERSTENKORN has left Detroit Edison Company for a position as substation engineer with the Florida Power and Light Company. Gerstenkorn had been with Detroit Edison three years at the time of his move. His new address is 7737 North Kendall Drive, Apt. C 309, Miami, Fla. 33156.

STANLEY HENSON has joined R F Communications Inc., in Rochester, N. Y., as a communications systems designer in the Government Products Division. Henson went to the Rochester position from Collins Radio Company in Cedar Rapids, Iowa.

'66

ROBERT E. MILLER has been promoted to industrial sales engineer for Westinghouse Electric Corporation in the Louisville area. Miller formerly was a sales assistant for Westinghouse at Fort Wayne. His new address is 3807 Kingsbury Drive, St. Mathews, Ky.

STEVEN P. COLLIER was promoted to the rank of captain in the U.S. Army Nov. 19. Captain Collier currently is stationed in Augsburg, Germany with the Army Security Agency. Following graduation, Captain Collier was employed with Ternstedt, a division of General Motors Corporation in Warren, Mich. He was called to active duty in November 1966 and has spent one year in Vietnam, having been awarded the Bronze Star for meritorious service while in Vietnam.

'67

BERT O. WILLIAMS JR. has been transferred from the General Electric Aircraft Engine group in Evendale, Ohio, to the Apollo Systems Department in Daytona Beach, Fla., as a design engineer in airplane equipment design in the Apollo Applications Program. The Williams also announced the birth of their first child, Brad Edward, born Dec. 7. Williams' new address is 1236 Midway Boulevard, Daytona Beach, Fla. 32015.

EUGENE ROOD has joined the U. S. Forest Service in Nezperce National Forest, Grangeville, Idaho, as an engineer in charge of design and construction of engineering projects. Rood formerly was employed by the Newport News (Va.) Shipbuilding and Dry Dock Company but resigned in September because of the lack of engineering responsibilities in the position.

DONALD D. WRAY has joined the Hamilton Standard Division of United Aircraft at Farmington, Conn., as a design engineer in the Biomedical Systems Department. Wray currently is completing his thesis for a master's degree in biological engineering from Rose.

'68

WILLIAM DODGE this summer was named national "Scholar of the Year" at the annual meeting of the grand chapter of Sigma Nu fraternity. He was chosen to the honor over six other finalists at the convention in Denver. Dodge currently is working for General Electric in Roanoke, Va.

STEPHEN WALKER has been named a customer service representative in the sales department of Marbon Division, Borg-Warner Corporation in Washington, W. Va.

DAVID A. JONAS has been permanently assigned to the quality control section of the parts distribution department of Caterpillar Tractor Company following a six-month training program with the company in Peoria, Ill.

Rose Takes Lead in Field of Biological Engineering

(Continued from Page 5)

Physical Scientists." He has been granted a leave of absence from Rose for the second quarter, during which time he will finish the book while in residence at the University of Florida. Prentice-Hall, one of six publishers which enthusiastically received the outline for the book, has contracted Dr. Arthur to write the textbook.

A recent survey pointed out that 100 major industries responded to a request to explore the mutual interest in the program for the purposes of job placement, securing seminar speakers, establishing field trips, as well as obtaining additional financial support.

Biological engineering is a rapidly growing field. Rose conferred its first three B.S. degrees in the area last June, and is expecting to graduate 18 by 1972 at which time there will be 25 juniors and 30 sophomores enrolled in the program. The graduate area also will be expanded with a projection of 12 students in 1972.

The need for biological engineering is ever present today. This need will be the challenge to undergraduate engineering education in the 1970s, and Rose will accept the challenge as one of the nation's leaders in the field of biological engineering.

In Memoriam

'01

EVERETT E. KING, retired professor of civil engineering at the University of Illinois, died July 16 at Urbana. He was 91 years old.

Following his graduation from Rose, he worked in railroad building in the midwest and in Mexico. He continued his education at Indiana University in 1910 and earned his master's in civil engineering from Cornell in 1911. Prof. King taught railway engineering at Iowa State prior to joining U. of I. in 1918. He retired and was given emeritus status in 1945.

'05

RALPH C. EVERSON, retired civil and mining engineer, died April 25 in Terre Haute.

Mr. Everson, who worked as a civil engineer with mining concerns in Indiana and Wyoming after graduation, was a private mining engineer in Terre Haute for 40 years before his retirement.

'10

ORVILL M. BERCAW, retired sales representative and district manager for Updegraff Manufacturing Company in Chicago, died Aug. 25 in Evanston. He was 80 years old.

Mr. Bercaw, who also was a manufacturers' representative for two other Chicago electrical firms, retired in 1966.

HERMAN J. MADISON, retired professional engineer for General Electric in Schenectady, died Nov. 7 in Buffalo, N. Y. He was 80 years old.

'13

CARL G. KRONMILLER, retired development engineer for Minneapolis-Honeywell Company, died Aug. 29 in Fort Lauderdale, Fla.

Mr. Kronmiller, whose engineering career began as an electrical draftsman on Panama Canal and spanned 45 years, retired to Florida from Minneapolis in 1957.

G. G. OVERPECK, formerly associated with the Insurance Division of the Veterans Administration, died Sept. 3, in Miami, Fla.

Mr. Overpeck retired from the Washington, D. C. Veterans Administration post in the early 1950s and since resided in Florida.

CLAUDE E. REESE, serving his second term as Vigo County Surveyor, died Aug. 13 in Terre Haute. He was 79 years old.

Named to fill an unexpired term of county surveyor in 1960, Mr. Reese was elected by wide margins in 1962 and 1966. Mr. Reese was a mining and land engineer and state licensed surveyor before entering government work.

'17

RICHARD AITKEN, retired superintendent of Merchants Distilling Corporation in Terre Haute, died Nov. 12 while raking leaves at his residence in Terre Haute. He was 74 years old.

Mr. Aitken, who had served as superintendent of the distilling company for 25 of the 27 years with the firm, retired in 1958. He previously had been associated with the Terre Haute Malleable and Automatic Machine companies.

CHESTER A. WILLIAMS, retired professional engineer for the Sales, Architectural and Engineering Service of W. J. J. Chase & Associates in Atlanta, died July 27.

'19

A. E. REINHARD, retired vice president in charge of Operations for the Detroit Steel Company, died Nov. 25. Associated with the company since 1943, Mr. Reinhard was named general superintendent in 1952.

'20

KENNETH M. HUSTON, retired research engineer for Armco Steel Corporation in Baltimore, died July 7. He was 69 years old.

Mr. Huston joined Armco in 1945 as a research chemical engineer, specializing in corrosion studies and metal finishes. He retired in 1959 but continued to act as a consultant to the trade. Prior to joining Armco, he was associated with Western Electric for

13 years and spent four years with Mutual Chemical Company.

HAROLD EXLINE, retired chief engineer for the Stonefort Coal Corporation, died Nov. 23 at McPherson, Kan. Mr. Exline, who retired a number of years ago, resided with his son, Robert Exline, Nov. '49, at the time of his death.

'27

J. PRESTON LENTZ, x-'27, retired International Harvester executive, died Sept. 2 at Franklin, Ind. He was 66 years old.

Mr. Lentz was formerly assistant works manager for International Harvester in Indianapolis. He worked for the firm 31 years and retired in 1967.

'31

HARMAN B. WOERNER, supervisor-station efficiency for Public Service Company of Indiana at Terre Haute, died July 31. He was 66 years old.

'32

HENRY L. PFIZENMAYER, deputy chief of the support office for the Ballistic Systems Division of the United States Air Force, died Dec. 19 in San Bernardino, Calif.

A native of Terre Haute, Mr. Pfizenmayer formerly had served as construction chief at the Norton AF base.

'53

GURDON P. HUNTINGTON was injured fatally in an automobile accident in Indianapolis Dec. 26. A native of Gary, Mr. Huntington had lived in Indianapolis 12 years and was a partner in Huntington, Wade and Associates, an electrical engineering consulting firm which specialized in airport and similar lighting projects.

'68

WILLIAM V. WAGNER was killed in a two-car crash in Indianapolis Dec. 22—two days before his twenty-second birthday.

Mr. Wagner, who was engaged in graduate study at Indiana State University, was killed during a rainstorm. He reportedly was taking a friend home to Indianapolis for the holiday when the accident occurred.

Rose Tech Clubs

FIRST DISTRICT

NEW YORK

A. H. Goodman, '32, *President*
Roland T. Kelley, A '49, *Vice-President*

SYRACUSE

Don Nelson, '53, *President*
Fred Ryker, '59, *Secretary*

SECOND DISTRICT

PHILADELPHIA

Robert E. Burtner,, '57, *President*
James R. Myers, '52, *Vice-President*
Ronald E. Myrick, '56, *Secretary-Treasurer*

PITTSBURGH

James T. Rogers, '47, *President*
Berndt Olson, '59, *Secretary-Treasurer*

WASHINGTON & BALTIMORE

John C. Gaughan, '58, *President*
A. T. Clark, Jr., '58, *Vice-President*
John A. Jacobi, '59, *Secretary-Treasurer*

THIRD DISTRICT

ATLANTA

C. R. Williams, '17, *Chairman*

LOUISVILLE

Vernon Whitehouse, '40, *President*
Fred Wright, '62, *Vice-President*
David Roberts, '63, *Secretary-Treasurer*

FOURTH DISTRICT

NORTHEASTERN OHIO

Gene Mrava, '57, *President*
Donald D. Carrell, '57, *Vice-President*
R. R. Meredith, '57, *Secretary-Treasurer*

DETROIT

Wm. Buechler, Dec. '47, *President*
John Nunley, '52, *Vice-President*
Edward Mabley, Dec. '47, *Secretary-Treasurer*

SOUTHWESTERN OHIO

David Mullen, Jan. '49, *Chairman*

FIFTH DISTRICT

CHICAGO

John W. Jessup, Feb. '43, *President*
John Waite, '50, *Vice-President*
Clyde Willian, '52, *Secretary-Treasurer*
Norman Pera, '48, *Asst. Secretary-Treasurer*

CENTRAL ILLINOIS

R. T. Mees, '31, *President*

IOWA

Gary Boone, *President*
Ray V. Frischkorn, '65, *Secretary-Treasurer*

SIXTH DISTRICT

EVANSVILLE

Richard A. Mullins, '40, *President*
Richard J. Kremer, '58, *Secretary-Treasurer*

INDIANAPOLIS

Harvey Greene, '57, *President*
J. E. Blastic, '58, *Vice-President*
Owen Meharg, '54, *Secretary-Treasurer*

KOKOMO

Robert P. McKee, '40, *President*
James H. Sherman, '55, *Vice-President*

WABASH VALLEY

Robert E. Newby, '58, *President*
Dale Oexmann, *Secretary-Treasurer*

SEVENTH DISTRICT

ST. LOUIS

Aaron Hogg, N'49, *President*
T. R. McPherron, '58, *Secretary-Treasurer*

EIGHTH DISTRICT

NORTHERN CALIFORNIA

Albert W. Lotze, '37, *President*
R. Alan Klaus, '53, *Vice-President*
Jean E. Lape, July '49, *Secretary-Treasurer*

ARIZONA

Albert V. McEowen, '35, *Secretary-Treasurer*

SOUTHERN CALIFORNIA

R. L. Staggs, '61, *President*
J. D. Edds, '58, *Vice-President*
Wilbur Steele, '58, *Secretary-Treasurer*

HONOLULU

Shinji Soneda, Jan. '49, *Chairman*

ROSE ECHOES

Rose Polytechnic Institute
5500 Wabash Avenue
Terre Haute, Indiana 47803

Second Class
Postage
PAID
at
Terre Haute, Ind.



R
C
R
lish
spa
it
Boa
Log
E
foll
istr
pop
bot
"
Ros
gine
"Int
gran
"
clas
elec
wou
Log
980.
T
stru
subs
and
the
prog
D
his
be
will
cal
ing.
Ros
1956
ing
P
and
for
Spec
spac
desi
take
of th