

Spring 1972

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Echoes Staff

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ECHOES

Rose-Hulman Institute of Technology



Spring '72

ECHOES

Rose-Hulman Institute of Technology

ALUMNI MAGAZINE

Spring, 1972

Vol. XI, No. 2

ROSE TECH ALUMNI ASSOCIATION

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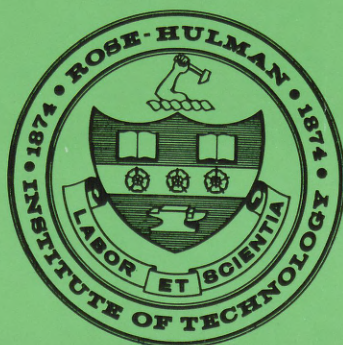
1968 to Annual Meeting 1972

Adam K. Grafe, '25

1970 to Annual Meeting 1974

W. Kent Harris

Editor



In This Issue

Across the Campus	1-8
Lugar to Speak	2
Honorary Doctorates	3
Schmidt Lecture	5
Faculty & Students	6-7
Engineer Day	8
Basketball '72	9
Europe on a Shoestring	10
News from Alumni	12
In Memoriam	18
Arthur Paige, Auto Engineer	19
Operation Catapult	20

ECHOES

Rose-Hulman Institute of Technology



The Cover

Remember "Dear Old Rose" in the Spring. Here's a look at Hulman Memorial Union on a misty April morning with the dogwood in full bloom. Photo by Chris Wodtke, '72 aerospace engineering major.

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. . . Help

a young man gain insight in engineering and science through-

OPERATION CATAPULT

. . . page 20

Welcome, Class of

'72

Countdown has begun for the Class of 1972 at Rose-Hulman Institute of Technology. And by 3:30 p.m. Friday, May 26 some 180 young men will join the 4,500 plus men who have preceded them as alumni of "Dear Old Rose."

But before they can enter the "real world" as engineers, scientists or in other occupations, there is much to be done . . . and so very little time remaining to do it!

Thus far, 1972 has not exactly been the year of the engineer. Slightly more than one-third of the class had accepted job offers as of mid to late April, with another sixty men "still weighing offers" in this time of tight economy. The remainder of the class was either searching for the elusive offer, awaiting word from graduate school or second-guessing as to the month they would be called for the military.

So much to do and so little time left to squeeze everything into an already busy program. Of course, there is the matter of passing three to four courses (no, gentlemen, Rose-Hulman pros do roll over and

play dead the last quarter of the senior year). Senior projects are due.

On the social side there are such "events" as the Senior-Faculty keger, the ASME picnic, Greek Weekend on campus, the final fraternity parties off campus and the final meetings (?) of practically every honorary, club and organization on campus not to speak of some which aren't listed in the official Rose-Hulman bulletin.

And then there is the matter of building a float for the Indianapolis 500 Festival. The seniors, no doubt, will have a hand in perhaps the biggest chore ever undertaken by the student body as a whole.

This last month, plus all that has gone before in the four years at Rose, will be culminated at Commencement '72 when Rose-Hulman honors its seniors, a handful of masters candidates and five honorary degree recipients, including alumni Dr. James F. Guymon '33, Dr. Richard K. Toner '34, and Michael W. Percopø Feb. '43, and noted Engineer Edward J. Cleary of Cincinnati.



Richard G. Lugar

Indianapolis Mayor Richard G. Lugar will deliver the address for the 94th commencement and receive an honorary Doctor of Laws degree from the Institute.

Lugar, one of the leading young national figures of the Republican party who often is referred to as a presidential candidate before the end of the decade, is a native Hoosier who was graduated first in his class at Indianapolis Shortridge High School in 1950.

Company, Indianapolis, Lugar has been Mayor of Indianapolis since 1968. The driving force behind Indianapolis' unique Unigov Program (a consolidated government of the City of Indianapolis and all of Marion County), Lugar has carried the idea of Unigov to national prominence through work with the National League of Cities (past president and national director), the advisory council of the United States Conference of Mayors and the

civic center, museum and numerous other projects during his tenure of mayor.

In addition to his work with the National League of Cities, Lugar was a member of President Nixon's Model Cities Advisory Task Force in 1969 and continues with the U.S. Department of Commerce Regional Export Expansion Council and the Indiana Criminal Justice Planning Agency.

Lugar is active in education in a number of capacities, serving as the board of trustees of Denison University and Indiana Central College.

Rose Honors

Edward J. Cleary is a consultant in environmental engineering and also serves as adjunct professor of environmental health, College of Medicine, University of Cincinnati. He specializes in the planning and administration of water resources development and quality management.

From 1949 to 1967 he was executive director and chief engineer of the Ohio River Valley Water Sanitation Commission (ORSANCO), taking that post when the agency was first established to undertake a regional water-pollution control program.

Prior to the Ohio Valley assignment, Cleary was on the editorial staff of *Engineering News-Record* from 1935 to 1949, in the latter years as executive editor. During this period he travelled extensively in this country and abroad to report on developments in water resources, environmental sanitation and public works.

At various times he has served as a consultant to the World Bank, World Health Organization, Economic Commission for Europe, Federal Republic of Germany, Institute of Inter-American Affairs,

ECHOES ALUMNI MAGAZINE

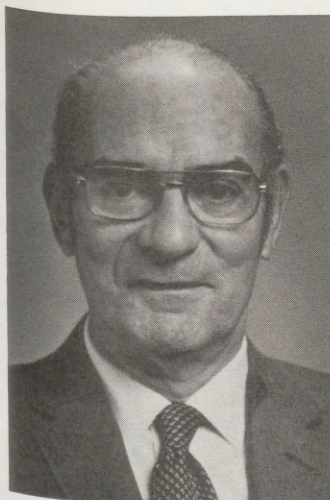
Indianapolis Mayor Richard Lugar To Give Commencement Address

He subsequently was graduated first in his class of 1954 at Denison University and continued his studies at Pembroke College, Oxford, England where he earned both B.A. and M.A. degrees.

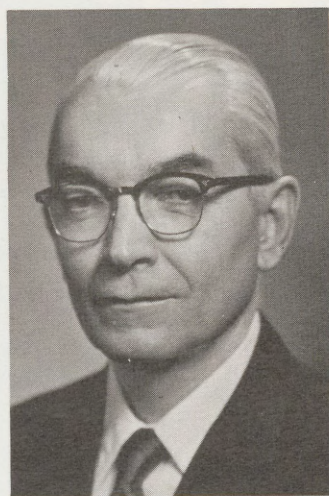
Formerly vice president and treasurer of Thomas L. Green and

Board of Directors of the National Association of Counties.

Indianapolis, currently the 12th largest city in the U.S., has made giant strides during his administration through the Unigov program, extensive urban renewal projects and major construction of a



Edward J. Cleary



Richard K. Toner



Michael W. Percopo



James F. Guymon

Alumni Guymon, Toner & Percopo

Delaware River Basin Commission and the State of New York.

Long identified with activities of the American Public Works Association, Cleary served this organization as president in 1951-52 and for 15 years was vice-chairman of its research foundation. In 1962 he received the "Public Works Man of the Year" award made jointly by the APWA and The Kiwanis International.

In 1963 he was recipient of the Resources Division award of the American Water Works Association and also the Charles Emerson award of the Water Pollution Control Federation, in recognition of his conception and application of a unique electronic sentinel for river-quality surveillance. These robot monitors are in operation throughout the Ohio Valley and are now being adopted by pollution-control agencies in several other areas of the nation.

Cleary obtained his undergraduate and graduate training at Rutgers University in New Jersey, from which he received civil and sanitary engineering degrees and a doctorate of science. He was honored by election to Tau Beta Pi and Sigma Xi.

Dr. James F. Guymon has one of the most unique distinctions of any chemical engineer ever to graduate from Rose-Hulman--international recognition as an authority on the production of wine and brandy.

Having matriculated to Rose after a year at Indiana State, he was graduated with high honors with the class of 1933. After two years as a laboratory analyst and operator of acetate ester plant for Commercial Solvents Corporation in Peoria, Ill., he began graduate study in biochemistry at Iowa State University.

Initially a research fellow, he became a full time member of the Iowa State Faculty in 1937 and continued there until completion of his Ph.D. in 1939.

He began his career at the University of California at Davis in August 1939 as instructor and junior enologist and with the exception of five years with the U.S. Army Corps of Engineers during World War II has been with the university since.

For some time Dr. Guymon has been professor of enology and chief enologist in the agricultural experiment station at the University of California-Davis in the famous Napa Valley.

His research has been in the chemical engineering phases of wine and brandy production and, over the years, he has studied and contributed to various processes used in Europe and throughout the world.

Dr. Guymon made numerous trips to foreign countries (11 in all since 1954) to participate in scientific meetings or for professional purposes, including most European nations, U.S.S.R., Northern Africa and Mexico. In fact, he will enroute to California after a six-week visit to receive his honorary degree.

Active in the Northern California Rose-Tech Club, he is immediate past president of the organization.

Dr. Richard K. Toner, professor of chemical engineering and clerk of the university faculty, is one of the most respected men on the faculty at Princeton University where he has been a member for nearly 30 years.

"During my senior year at Wiley I was attracted to Rose for two reasons," says the 1934 graduate in chemical engineering. "One was the 'Rose Show' which used to be held

every other year . . . the other was the encouragement of my chemistry teacher, the late Mr. Grosjean, who urged me to compete for one of the Rea Scholarships."

Richard Toner won the scholarship and four years later was graduated with high honors and Tau Beta Pi distinction. He went directly to industry at Commercial Solvents Corporation in Terre Haute, but this activity lasted only until September when an increase in freshman enrollment at Purdue University created an opening for a teaching assistantship which led to a masters in chemical engineering in 1936.

Purdue continued to grow and in 1937 he joined the Department of Chemical and Metallurgical Engineering, decided on teaching as a career and began work on a doctorate which he completed in 1939.

Following assignments at Lehigh University and New York University, Dr. Toner received what he calls "my golden opportunity" when Princeton offered him as assistant professorship in September, 1942. He was granted tenure with an associate professorship in 1948 and was made full professor a year ago.

Widely known for his work in thermodynamics and unit processes, he has been active in the Princeton-based Textile Research Institute since 1944, and since 1959 has edited the Institute's *Textile Research Journal*.

While at Princeton he developed an interest in the inter-relationship between science and religion. He enrolled as a special student at the General Theological Seminary in New York City. Dr. Toner ultimately became a candidate for Holy Orders, and on May 7, 1955 was ordained a Priest in the Episcopal Church.

For about 10 years he served as chaplain to Episcopal students at Peddie School, a private school for boys near Princeton, and for 17 years has been Priest Associate of Trinity Episcopal Church at Princeton.



As president of Squibb Western Hemisphere, Middle East and South Africa, Michael W. Percopo, a 1943 Rose alumnus in chemical engineering, is at the helm of an organization that encompasses Squibb's operations in Canada, all of Latin America, the Middle East from Lebanon through Pakistan and eastern South Africa.

To say Percopo travels extensively is an understatement. More than 40 percent of his time is spent visiting the 14 companies which fall under the domain of this senior executive.

Percopo joined Squibb as a marketing trainee in 1948 following completion of his MBA from Harvard Business School. He received his first international assignment the following year as liason with Squibb S.P.A., then known as Laboratory Palma. In 1951 he was sent to Brazil where he was assistant to the president of Squibb's subsidiary there.

He returned to New York in 1953 as acting regional director for Turkey and the Philippines and a year later

was transferred to Turkey as general manager of the first American drug company in that country.

Percopo was named regional manager for the Middle East as sales in Turkey went from zero to \$6 million in three years. He later was to head operations in Argentina until his return to New York in 1966 and subsequently was promoted to his present position in 1968.

Since no fewer than 12 of the 14 international subsidiaries he heads have their own manufacturing facilities, Percopo uses his engineering background almost daily. But his long suit is working with, or should we say directing people--whether they be in Pakistan, Argentina or New York City.

What does Mike Percopo do in the little free time available?

"I've read with admiration about these executives who go home at five and have lots of time to spend with their families. I haven't been able to do that. My wife Catharine (a graduate of Vassar) and I spend what free time we have in travel."

ECHOES ALUMNI MAGAZINE

"The impact of a few individuals willing to work hard for worthwhile ideas can change our cities, improve the way they operate and turn them into places fit for humans to live even when those cities give evidence of serious decay."

The speaker was J. Erik Jonsson, chairman of the board emeritus of Texas Instruments, Inc., and former mayor of Dallas, and the intent of the statement was a challenge to the Rose-Hulman student body of Rose-Hulman Institute of Technology to "stand up and be counted" in the revitalization of our nation's cities.

The renowned engineer, whose career as a business and civic leader is rivaled by few, was on the Rose-Hulman campus April 18 to receive the fifth Chauncey Rose Medal given annually for outstanding contributions to the free enterprise system and to give the endowed Oscar C. Schmidt Lecture on the place of technology in the American way of life.

Later in the day, the Rose-Hulman Beta Chapter of Tau Beta Pi initiated Jonsson into Tau Beta Pi in recognition of his accomplishments as an eminent engineer.

"I have confidence in the future of this country because I know that there are people of quality who possess the intellectual capacities and will develop skills adequate to seek and find problem solutions which will be characterized by humanity and common touch," be told the student body.

"If we can design an airplane fuselage or wing by computer, test it by simulation and prove or improve its design, if we can construct a factory for automatic production of complex products, I believe that computer aided design and simulation of urban conditions can be used to better the methods by which we control our urban affairs and improve our life styles."

A graduate of Rensselaer Polytechnic Institute with a B.S. in mechanical engineering in 1922,



Dr. John A. Logan, right, presents Chauncey Rose Medal to J. Erik Jonsson, renowned engineer and former Dallas mayor.

Erik Jonsson, Ex-Dallas Mayor, Receives 5th Chauncey Rose Medal

Jonsson joined Texas Instruments shortly after graduation and later became its president and chairman of the board. He was largely respon-

sible for the expansion of this company from a small laboratory operation into one of the leading electronic manufacturers in the world.

As Mayor of Dallas from 1964 through 1969, he was architect of a non-political \$200 million program of revitalizing the core city and currently is engaged in succeeding projects and heads up the plan to build the world's largest airport in cooperation with Fort Worth.

Recently elected to the National Academy of Engineers, he is chairman of the board of the Southwest Center for Advanced Studies and is on the visiting committees of M.I.T.'s industrial management school and Harvard University's School of Business Administration.

He also is a member of the board of trustees of Rensselaer Polytechnic, Skidmore College, Tulane University, Austin College and the University of Dallas.



Tau Beta Pi president Dan Dvorak shows initiate Jonsson the Rose-Hulman Bent.

Computer Center In New Quarters

The Edward G. Waters Memorial Computing Center, which for years has been bulging at the seams in its two rooms across from the library, has moved to spacious new quarters in the lower level of Crapo Hall.

The new center occupies approximately 3,500 square feet of space, including a 22 by 60 foot room for the equipment, a larger area with library tables for individual study space, a large room for key punch, faculty offices and a storage area.

Dr. Darrell E. Criss '43, who has been director of the computer center since the first Bendix G-15 computer arrived on campus in 1960, was in charge of design of the center, carefully taking into account areas of anticipated expansion over the next 10 years.

Viewing the computer primarily an educational tool, Dr. Criss says the services of the Rose-Hulman center are as readily accessible to students as any he has seen.

"In the fall quarter we run up to 500 student jobs daily," says Dr. Criss, "and at least half of our student body uses the computer consistently throughout the year."

The system currently in use is a beefed up IBM 1130 system with a computer-to-computer link with Purdue University's CDC 6500.

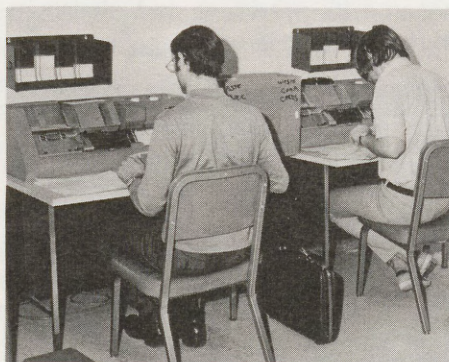
In addition to contributing to undergraduate education and aiding members of the faculty in their teaching and research projects, the computer center handles all the school's data processing for payroll, student, alumni and admissions records and limited service to the Terre Haute community.

Rudy G. Sanders '67 assists Dr. Criss in the operation of the center as supervisor, while from nine to 12 students ranging from freshmen to

seniors work in the center on a part time basis. The parttime jobs are not only the best paying student positions on campus, but provide the student valuable experience as operators and analysts.

Faculty Notes

Chosen to receive an honorary Doctor of Laws degree from Indiana University this Spring is **Dr. John A. Logan**, President.



Dr. Darrell E. Criss '43, seated at console in top picture, works with Rudy G. Sanders '67 in Rose-Hulman's spacious new computer facility. Lower photos illustrate the traffic in the center where nearly 400 students pick up computer projects daily, the new expanded study and work area and a portion of the spacious key punch room.

He previously has been awarded an honorary Doctor of Science from Indiana State University in 1964 and an honorary LL.D. from Wabash College in 1970.

Robert E. Newby '58 and **Paul G. Phillips** have assumed positions as plant engineer and superintendent of buildings and grounds, respectively. Newby, who joined the Rose-Hulman administration last May after 13 years in industry at Anaconda

ECHOES ALUMNI MAGAZINE

Aluminum Company and the Visqueen Division of Ethyl Corporation, it responsible for engineering, maintenance and construction on campus. Phillips, who has served as assistant superintendent of buildings and grounds since 1966, assumes the position held by **Paul E. Giffel '37**, who died in December.

Dr. R. Dean Hill, associate professor of chemistry since 1968, recently was named winner of the Teetor Award, an honor which goes annually to a young engineering educator interested in automotive engineering and the internal combustion engine. The award, which consists of an all-expenses paid trip to the American Society of Automotive Engineers' annual meeting, was "accepted" by Dr. Hill in January.

Dr. Robert A. Arthur, professor and chairman of biological engineering, and **Dr. Harold A. Sabbagh**, have been granted leaves of absence for the 1972-73 academic year to engage in special projects.

Dr. Arthur, who has been granted an extended leave, will do consulting and research in instrumentation in water pollution control in Wisconsin.

Dr. Sabbagh, meanwhile, will spend a year at the Crane Naval facility where he will do research in the area of electroacoustics and write a textbook entitled "Elastic and Electroacoustic Waves."

Hats off to **Dr. Henry J. Winton**, professor of electrical engineering. His doctoral thesis has not fallen into the category of many--that of collecting dust on a library shelf. His research and subsequent papers on a computer simulation of the effects of body temperature is being used by NSAA in the development of space suits of the future. His work also was chosen the top paper among 300 entered in the Summer Simulation Conference in 1970--an honor which led to his chairing the bio-medical session of the same

conference last summer. His work has been referenced by biomedical research agencies and libraries too numerous to mention.

Student Leaders

William J. Randall, a junior from Iowa City, Iowa, has been installed as the new student body president at Rose-Hulman.

Randall, who served as treasurer of the Student Government Association during the 1971-72 academic year, has **Joe A. Bubenzer** as his vice president.

An honors student and campus leader, Randall has been a starter on the defensive unit of the Engineers' football team since his freshman year, twice being named the top defensive back and serving as team co-captain. Last fall he was named the team's Most Valuable Player.

Bubenzer, a junior from Freelandville, is a mechanical engineering classmate of Randall. He is a member of the varsity baseball team and has been active in student congress and other campus leadership since his matriculation to Rose.



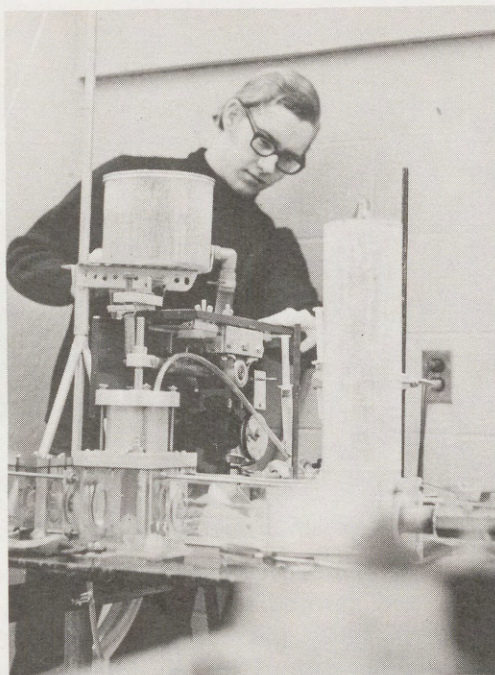
James H. Graham, (left) graduating senior in electrical engineering and immediate past president of the Rose-Hulman student body, passes the gavel to **William Randall** (center) as vice president **Joe A. Bubenzer** looks on.

Sharpshooters

Rose-Hulman has the finest freshman rifle team in the nation, according to results of the Intercollegiate Inter ational Freshman Rifle Team Match published recently. The sharpshooting Engineer freshmen won the national postal meet by compiling 2075 points with a four-man team firing 20 shots from three different positions--prone, kneeling and standing--50 feet from the targets.

Dale Ranck of Indianapolis, Steve Marx of VanWert, Ohio, Richard Glaspie of Oxford, and Tom Lorey of Terre Haute made up the championship squad. Ranck and Marx competed for the Rose-Hulman varsity throughout the 1971-72 season. Ranck, Marx and Glaspie with totals of 290, 282 and 269, respectively, placed among the top 10 freshman shooters in the nation to lead the Engineers to the title.

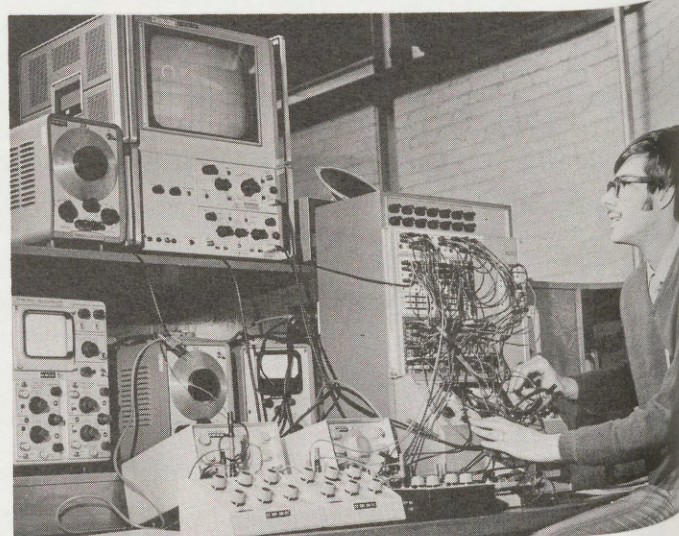
Following the Engineers in the National freshman results was the team from the U.S. Naval Academy at Annapolis, Md., with a total of 1945 points.



Junior Jim Morris tests artificial heart valves.



Jack Smith '60 lends alumni support.



Rick Pasco's bouncing ball simulation.

ENGINEER DAY

After three months of planning, Engineer Day '72 came off like clockwork Saturday, Feb. 19. Sponsored by Blue Key Fraternity, national service honorary, in conjunction with National Engineering Week, the second annual Rose-Hulman Engineers' Day featured 17 student projects demonstrating the week's theme--"Engineering: A Better Tomorrow Through Technology".

Norman Klein, senior mechanical engineering major from Arlington Heights, Ill., and chairman of the event for a second year, reported that more than 300 persons registered for the day's activities and estimated that 300 others browsed

informally. More than 20 exhibits and demonstrations were located throughout the main building and adjacent laboratory facilities--the 17 student projects and seven industrial displays provided by J.I. Case, Cummins Engine, FMC Corporation -- Link Belt Division, General Electric, Procter & Gamble, Public Service of Indiana, and Indiana Bell--Western Electric.

Three senior students, Richard C. Pasco of Des Plaines, Ill., J. Scott Josif of Potomac, Md., and Fred C. Franzwa of Hobart, headed the prize-winning student projects. They were recognized for their efforts Wednesday, Feb. 22, at the Francis Vigo Chapter of the Indiana Society of Professional Engineers' engineering week banquet where they were presented \$25 awards.

An electrical engineering major, Pasco individually devised his project entitled "Analog Computer Simulation". Josif, a mechanical engineering major, explored the level of noise necessary to cause damage to the human ear in a project entitled "Noise Pollution." Heading a group from the chemical engineering department, chemical engineering major Franzwa headed a project entitled "Air Pollution Control."

Joining Klein on the planning committee from Blue Key were Franzwa, student projects; Robert Connon, Mishawaka, and Bill Randall, Iowa City, Iowa, industrial exhibits; Charles Sweeney, Beech Grove, program; Mark Murnan, Cincinnati, registration; and Mark Owens, Terre Haute, publicity.

ECHOES ALUMNI MAGAZINE

Hoosier Hysteria? ...Not This Year

There can be compensation in a losing basketball season. For Rose-Hulman's 1971-72 team there is.

There is compensation in that Coach John Mutchner played with a full cast of underclassmen during the 1971-72 campaign. Add any "blue chip" high school prospects that he happens to find, and the 1972-73 outlook improves.

The Engineers' constantly improving schedule with the likes of Valparaiso University, St. Joseph's, Franklin, Transylvania University, Indiana Central and Earlham is certainly compensation in itself.

There is compensation, too, in that the Engineers took an educational tour of Europe (see Memory Montage, pg. 10) thanks to and as part of basketball.

The Engineers finish 7-16, but there was compensation.

"We lost our first five games, got into a downward spiral, and never came out of it," recalls Mutchner. In terms of games won and lost, it was the worst campaign in his nine-year term of residence.

In his first season at Rose, Mutchner coached the Engineers to five victories while losing 12 games. In eight campaigns since, his teams have notched five winning records, and the school is one of an elite few without athletic scholarships or plans to initiate such grants.

This season's victories came over Wright State University (89-70), Indiana University at Kokomo (105-74), Principia College (84-82), Illinois College twice (85-77 and 98-70), and Wabash College twice (87-79 and 93-91).

The defeats were at the hands of Southwestern University (115-87), LeTourneau College (94-82), St.

Joseph's College (117-67), Purdue University at Calumet (79-78), Franklin College (110-55), Transylvania University (99-77), Northern Kentucky State College (98-85), Illinois Institute of Technology (98-70), Indiana Central College (94-77), Anderson College (100-85), Principia College (94-93), Greenville College (110-92), Earlham College (111-85), Valparaiso University (104-66), and Marian College twice (80-72 and 89-69).

Members of this year's varsity included juniors Gary Dougan, Holland; Larry Erwin, Terre Haute; Joe Snyder, Vincennes; Rick Henthorn, Cincinnati; Dallas Canfield, Frankton; Tom Hans, Worthington; and Mike Bennett, Chicago.

Also, sophomores Jim Hammon, West Milton, Ohio; Mike Kilpatrick, East Chicago; Clayton Black, Eaton, Ohio; Terry Eades, Evansville; and Randy Wadsworth, Cincinnati. Freshmen were Dennis Townsend, Hamilton, Ohio; Bill Ransbottom, Springfield, Ohio.

Leading the Engineers' individual statistics were five players scoring in double figures per game: Eades 12.6, Dougan 11.8, Snyder 11.7, Erwin 10.3, and Black 10.2. They were Rose-Hulman's usual starters, while one other player, Bennett (7.9), averaged more than five points.

Black led the Engineers at the foul line, hitting 80 per cent of his free throws. Dougan paced the team in both rebounding (198 total) and field goal accuracy (55.2 per cent) -- he is fifth among all-time rebounders and free throw shooters, while ranking 10th in all-time scoring.

Dougan also established a school record for free throws converted in a single game (15) against Principia College and tallied 29 points for a season single-game high in the same outing. In another contest he pulled off 19 rebounds for an individual season high against LeTourneau College.



SPRING 1972

Something to do over Christmas
that one big chance to see Europe...
basketball all the way... undoubtedly
was--

europa on a shoestring

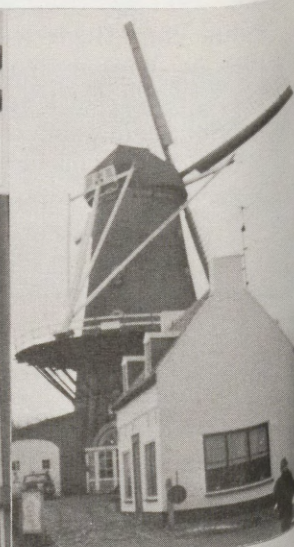
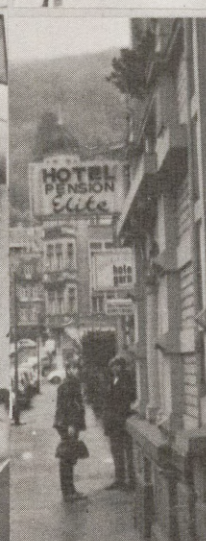
An 11,000-mile trip. Engineered by Coach John Mutchner. Taken by Engineers. Conceived in early January ('71) over a bowl of lunch-time chili with reminiscence of an Army tour of duty. Financed by the efforts of money-earning--not money-begging--basketball players (may there never be another car wash in their lifetimes, thank you). Filled with first-time-around and never-to-be-forgotten experiences (special thanks to Icelandic). In its wake a montage of memories exists.

Despite Mutchner's inability to take photographs which would develop properly, **THE ECHOES** presents both verbal and photographic combinations in a memory montage, thanks to the instamatic-type camerawork of three of the traveling Engineers (Dogan, Snyder, and Eades) and the redeeming grace of Mutchner's memory and typewriter. From Mutchner's notes:

shoestrings . . .

12/19 . . . Kennedy Icelandic just announced two-hour delay . . . up, up, and away . . . DC8 with 250 people . . .

12/20 . . . Landed in Iceland . . . everyone sleepy . . . very crowded on plane . . . 2:30 p.m., landed in Luxembourg . . . finest hour of coaching . . . the kids still don't know what is out there . . . I've been there . . . had three nine-passenger stationwagons driving to New York . . .



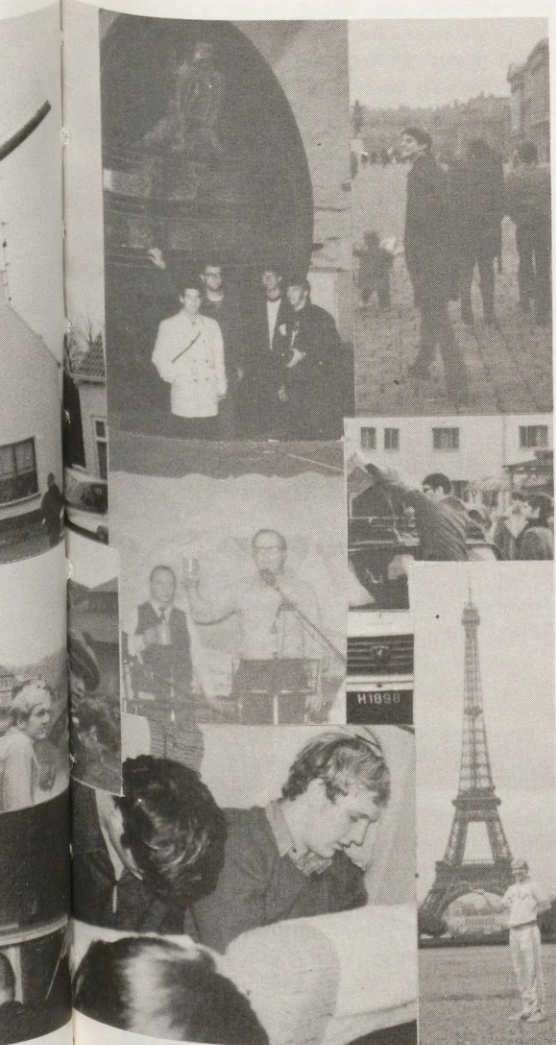
. . . squeeze into two SMALL cars . . . must have luggage racks . . . already three hours late . . . PACKED into cars . . . drive like mad in pouring rain over strange roads in overloaded cars . . . arrive Rhine Main AFB . . . no sleep in beds for 36 hours . . . lost game, 85-74 . . . everybody in a trance . . .

12/21 . . . to Frankfurt where I was stationed 12 years ago . . . everything changed . . . to Weisbaden . . . guys not there . . . lost downtown . . . waited 25 minutes . . . left for gym without five . . . going into game with nine men . . . won, 94-90 . . . worst homer job in 12 years of coaching . . . three technicals and

ECHOES ALUMNI MAGAZINE

Christmas vacation . . .
 Europe . . . playing
 undoubtedly, the trip

string



thrown out . . . first time in my life . . .
 back downtown . . . found the five
 . . . they were shook . . . off to a
 typical German guesthouse --
 Bavarian band, good looking blonde
 waitress, and beer . . . a real bout
 with my coaching conscience over
 whether to let the guys drink . . . trip
 rooted in an opportunity for a

SPRING 1972

tremendous educational experience
 . . . that doesn't mean drinking milk
 and cookies in Germany.

12/22 . . . into Heidelberg . . . new
 high-rise apartments, shopping centers,
 and industry . . . old Heidelberg?
 . . . looks like an American city . . . boys
 shopped all afternoon . . . game at new
 gymnasium . . . designed for indoor soccer
 . . . swinging baskets . . . inch-thick
 plastic bankboards--vibrated about three
 inches when hit . . . string nets--bindertwine
 . . . hollow floor--slick tile . . . and--would
 you believe--a RUBBER BALL . . . all this
 and our first game with international rules!
 . . . German national team on floor . . .
 mmmmmmm--two seven-foot players, a
 couple 6-9's, an assortment of 6-6's and
 6-5's and hair to their shoulders . . . good
 athletes . . . rather mechanical . . . lost,
 110-55 . . . never in it . . . you would have
 thought that the Germans were trying to
 make up for WW II in a 40-minute basketball
 game!!! . . . postgame meal with German
 team . . . about five liters of beer . . .

12/23 . . . arrived Bamberg, 5:30 . . .
 our team picture on top of the first page
 of the sports section . . . kids got about
 20 copies apiece . . . real basketball
 hotbed . . . played in US Army gym . . .
 great crowd--4500 packed . . . lost, 94-92 . . .
 two black 6-8 Americans beat us . . . big-
 time college players--not quite good
 enough for pros . . . with Bamberg team
 to a packed guesthouse . . . party . . .
 old building--1583 vintage, low ceilings,
 beer-soaked floors, smoke-filled room . . .

12/24 . . . road to Paris . . . 550
 miles . . . guys like pretzels . . .
 everybody worn out . . . Paris backstreets--
 network of cowpaths . . . Christmas Eve? . . .

12/25 . . . tour bus . . . basic tour of
 Paris--a must . . . Christmas mass at
 Notre Dame . . . nice dinner . . . drove
 20 miles to Versailles . . . the Louis's
 knew how to live . . . 8:30 p.m., to
 Folies Bergiere . . . unbelievable show . . .

12/26 . . . slept in . . . drove to Eiffel
 Tower for team picture . . . warmups over
 street clothes . . . tower in background . . .
 special plans for that picture . . . several
 lens readings . . . different angles . . . then
 Napoleon's Tomb, top of the Arch . . .
 Louvre Museum . . . everyone tired . . .

12/27 . . . headed for Belgium . . .
 everyone glad to get out of Paris . . .
 arrived Blankenburg . . . heard sound truck
 advertising game at pregame meal . . .
 lost, 99-85 . . . two black Americans--one
 6-10, the other 6-8 . . . couldn't stop them . . .
 we didn't play well . . . wanted to get
 mad in dressing room after game, but
 decided not to . . . said before we started
 that winning was going to be third behind
 fun and education . . . kids took off in
 all directions . . . Til and I went with
 Belgian coaches . . . Blankenburg coach--
 real basketball nut . . . had every basketball
 book printed in the U.S. in the past 10
 years . . . talked about everything--poor
 officiating, world politics, universality of
 women . . . 3:45 a.m., worn out . . .
 Belgian coach, in his best classroom English,
 "Hey, there's just one more place I want
 to take you." . . . 5:15 a.m., to bed . . .

12/28 . . . up at 6:45 . . . along the
 Belgian coast . . . still a lot of old bunkers
 and fenced-in minefields . . . out of our
 way to go over into Holland . . . guys were
 impressed . . . wished we had more time . . .
 stopped in small Dutch town--took a lot of
 pictures, saw windmill . . . back into
 Belgium . . . arrived Antwerp, 2:45 p.m.
 . . . shopped for three hours . . . lost to
 Eural's Coldfingers AAU team, 110-85 . . .
 again, two 6-9 American players wrecked
 us . . . postgame reception in bar
 overlooking gym . . .

12/29 . . . a real night's sleep . . . on
 road toward Oostende to catch Hovercraft
 across Channel . . . water too rough . . .
 hovercraft not running . . . down to Calla,
 France--next ferry

(continued on page 20)

News From Alumni

RoseTech Club Activities Vary From Moon Shot to Wine-Tasting

As RoseTech Clubs met in their annual Spring meetings across the country in March and April one question came up time and time again: How do we get more alumni out for these funitions?

The question is valid--one which answered itself as reports from the various secretaries came filterning back to Rose. Suggested answers included 1) early notice of the meetings (as much as six weeks to two months), 2) meeting locations easily accessible to a majority of alumni (this could mean splitting a group such as Chicago-Northern Indiana), and 3) coming up with a meeting so unique that none will want to miss it example: (the Florida club's visit to Cape Kennedy for the Apollo 16 lift-off).

Perhaps the brightest story from an attendance standpoint is founding of the Northern Indiana RoseTech Club, formerly part of the greater Chicago club.

The net result was an attendance of 33 alumni at the Chicago meeting at the Holiday Inn at I-80 and I-294 and 34 alumni at the inaugural meeting of the Northern Indiana club, held at Portage. Records show it has been some time since more than 40 alumni from the Greater Chicago-Northern Indiana area attended the meeting at a single location.

Of course, the story which struck the fancy of those in the alumni office most was the Central Florida's meeting at Cape Kennedy during the firing of Apollo 16 in mid-April.

Rose-Hulman President Dr. John A. Logan was guest of the club which also took in the recently opened Disney World as part of the RoseTech weekend.

Correspondence brought out that a "Bring-a-Buddy" plan, or something to that effect, was introduced at no fewer than six meetings, while summer activities were discussed by at least as many clubs. Under the direction of immediate past president Dennis Fritz '68, the Philadelphia Club scheduled a family picnic for the club at Bob Burtner's ('57) home July 16.

Another interesting note came out of the meeting at Cleveland where Dr. Calvin Dyer, new chairman of humanities and social sciences, informed alumni of the proposed new humanities program at the school. Much of the business meeting was spent on reporting recruitment activities in the Cleveland area and a discussion of Operation Catapult.

Speakers from Rose-Hulman included Dr. Logan at Florida, Northern Indiana, and Chicago; Dr. James B. Matthews '54, dean of faculty, at Arizona, Southern California, and Honolulu; Dr. Calvin Dyer, Cincinnati, Louisville, Northern California, Cleveland, Pittsburgh, and Indianapolis; Duncan C. Murdoch, director of admissions, Iowa; and Ronald G. Reeves '58, director of Development, and Kent Harris, director of public relations, New York, Washington & Baltimore, and Philadelphia.

'22

Kearney E. Harmas (M.E.) drops the Echoes a line which says: "Calling all '22s. It's never too early to start planning, and man alive we '22s sure have something worth planning--our 50th graduation anniversary. Let's all plan now to be there Oct. 20-21 . . . Okay?" Kearney reports he remarried last June 26 and has moved from Wilmette, Ill., to Laguna Hills, Calif. Prior to his retirement he was supervisor of administration for Illinois Bell Telephone Company. His current address is 45 South Calle Aragon, Laguna Hills, Calif. 92653.

'26

The Board of Regents of the University of New Mexico bestowed quite an honor on **Ralph W. Tapy** (E.E.) in February by voting to name the university's electrical engineering building in his honor. The action was taken in response to interest on the part of his former students, and will be culminated with a formal dedication in April. Tapy, who received the Honor Alumni Award at Rose's 1970 Homecoming, was professor and chairman of electrical engineering at the University of New Mexico for more than 20 years prior to his retirement in 1962. Following his graduation from Rose, he earned a masters at the University of Michigan and later taught at the University of Detroit from 1928 through 1939. He then moved to New Mexico where he was chief architect, so to speak, of new electrical engineering program and responsible for design of curriculum and facilities of the discipline. Congratulations are in order for Ralph Tapy.

'28

Raymond Schauwecker (E.E.), superintendent of gas transmission and storage for Northern Indiana Public Service Company since 1965, retired Oct. 1 after 42 and one-half years with the utility. Having joined NIPSCO in the spring of 1929 as a junior engineer, he was promoted through engineering ranks to the position of by-products manager in 1943. Raymond continues to reside at 118 Waltham Street, Calumet City, Ill. 60409.



Tapy

ECHOES ALUMNI MAGAZINE

'33

Frank Crawford (M.E.) sends up-to-the-minute information and some tips for Rose grads young and old in a recent note to **The Echoes**. For the last two years he has been in the employ of GTE Lenkurt, Inc., of San Carlos, Calif., a company which deals with the development and tooling of polythitic crystal microwave filters. In addition to his whereabouts, Frank sends the following note to alums: "Some free advice to new grads (& old)--1. Work for a portable retirement law. 2. Try to avoid the space industry (obviously). 3. Think hard before working in California. . . ." One case in point: twenty years almost evenly divided between three companies and no retirement plan. Frank's address is 7425 Heatherwood Dr., San Jose, Calif. 95129.

William C. Heidenreich (Ch.E.), retired operations director for Union Carbide Corporation, drops a line that he is a "sometime farmer" on his Toby Lane Farm near East Corinth, Vermont. He also was honored recently with his election as a Fellow in the American Institute of Chemists. His address is Toby Lane Farm, East Corinth, Vt. 05040.

'39

Robert J. Burger (Ch.E.) recently was promoted to the executive office of the National Academy of Engineering with the title of Assistant for Technical and Financial Operations. He joined the Academy of Engineering in 1967 upon his retirement from the U. S. Air Force where he held the rank of colonel and the directorship of the Aeronautics and Space Engineering Board. Burger's address is 5307 Chesterfield Dr., Campsprings, Md. 20031.

'44

J. H. Hanes (Ch.E.), director of industrial relations for Dow Chemical U.S.A. since 1968, is in a new position as general manager of the Rocky Flats Division which Dow operates for the U.S. Atomic Energy Commission in Colorado. Hanes joined Dow in 1946 following two years service with the U.S.

Army. He interrupted his service with Dow two years later to enroll in law school and upon graduation from the University of Michigan Law School with a J.D. in 1951 returned to Dow in the legal department. He was promoted to assistant to the general counsel in 1963 and in 1968 was named to head corporate relations. In November, 1968 he was named to head industrial relations for Dow U.S.A. and at that time became a member of the management board of the Rocky Flats operation.

'46

Robert D. Strum (E.E.), professor of electrical engineering at the Naval Postgraduate School, Monterey, Calif., was winner of the 1971 Western Electric -ASEE Award for outstanding contributions to engineering education for the Pacific Southwest region of the American Society for Engineering Education. He was cited for substantial contributions to the field of programmed instruction. He has co-authored five programmed textbooks, written two instructional computer programs for student use, and developed laboratory devices which have simplified and encouraged the learning process. Bob has conducted numerous workshops on the field of programmed instruction throughout the U.S., including one at Rose in April 1970 (See Spring 1970 Echoes), and spent the 1970-71 academic year in residence at the Bath Technological Institute, Bath, England.

'47

Prof. Gerald R. Swihart (C.E.), described not too long ago by **The Daily Nebraskan** as "a friend, not just a student counselor or instructor", has been promoted to vice chairman of the department of civil engineering at the university. Following graduation from Rose, he earned a masters in structural engineering at Yale University in 1949 and soon after joined the faculty at the University of Nebraska. He has been a full professor for more than 10 years, and in addition to research has co-authored a textbook entitled **Principles of Structural Equilibrium.**"

William H. Plenge, Sr. (E.E., Sept.) enthusiastically reports a challenging overseas assignment as project manager for Korea's first petrochemical plant. Bill and his family moved to Wulsan, Korea, last May as the first 30 men began work on the project. The Little America population now numbers 125 on his project alone, with an additional 150 men and their families connected with downstream customers plants being built near Wulsan. Reports Bill: "Korea continues to amaze me. The people are hard-working and friendly, the climate is excellent and Wulsan is becoming the Gulf Coast of Korea." His new address is Korea Oil Corporation, Box 4, Wulsan, Korea.

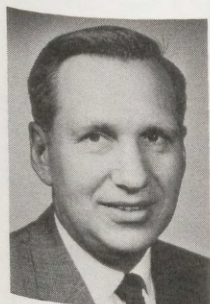
'48

John M. Nevins (M.E., Oct.) has been named vice president for sales for Wisconsin Centrifugal, Inc., Waukesha, Wis. Nevins, who joined the firm's engineering department in 1954, served as head of sales engineering from 1962 to 1968 when he became sales manager for the producer of centrifugally cast bronze and stainless steel components. Prior to joining Wisconsin Centrifugal, he had been with the Chicago and Philadelphia offices of M. H. Detrick Company for six years where he supervised refractory and furnace installations. Nevins' address is 719 Oxford Road, Waukesha, Wis. 53186.

'49

Robert L. Royer (E.E.), vice president of operations for Louisville Gas and Electric Company, has been elected to the board of directors of the utility. Bob joined Louisville Gas and Electric upon graduation from Rose as the Heminway Medal winner in April, 1949, and has since held positions as electrical engineer, assistant superintendent of distribution, assistant vice president-engineering, assistant general superintendent and vice president-general superintendent of the operating department. A former president of the RoseTech Alumni Association, he is active in Boy Scout Work and various engineering groups. The Royers reside at 4014 Norbourne Boulevard, Louisville.

James P. Laughlin (E.E.), senior product engineer for refrigerator systems design for Whirlpool Corporation in Evansville, recently received the Tri-State Technical Achievement Award for the Tri-State Council for Science and Engineering. According to the citation, he received the award for the design and development of a new line of small refrigerators to be introduced by his employer in 1973 and the development of a computerized refrigerator systems simulation program. Jim joined Seeger Refrigeration Company, a former Whirlpool subsidiary, in 1951 and since has been promoted through engineering positions to senior engineer.



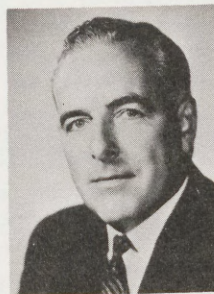
Hanes



Laughlin



Royer



Nevins

'49

James F. Haring (Ch.E., April) has left Esso Chemical Company to become deputy manager of engineering and economic planning for the Newfoundland Refining Company Limited U.S.A. The company, which is based in New York, is in the process of establishing drilling operations in Newfoundland which are expected to supply many east coast customers in coming years. Prior to making the move Jim describes as "rewarding and very challenging," he was general manager of the logistic department for Esso. In addition to his many trips to Newfoundland in recent months, Jim has been active as president of the New York Rose-Tech Club.

'52

Dr. Duane Pyle (C.E.) has left Purdue University for a position as chairman of computer science at the University of Houston. Following his graduation with high honors at Rose, he earned a masters in 1954 and a Ph.D. in 1960. Prior to the move he was assistant chairman of computer science at Purdue, a position he had held for four years. Pyle's new address is 12311 Kemberley, Houston, Texas 77024.

'53

Frederick E. Wheeler (E.E.) is engaged in an interesting overseas assignment with the TRW Systems Group. Since August 1970, he has been providing management and technical consulting for the German space programs. According to Wheeler, this has involved primarily HELIOS, a solar probe designed for the closest penetration into the sun. HELIOS is a joint U.S.A. (NASA) - Germany (GFW) program and will be launched on a Titan III, and is scheduled to be completed in the fall of this year. In another note of interest Fred reports his three teenage children are attending the American High School on the Rhine. Daughter, Kathi, will be in the first graduating class. The Wheelers reside at 53 Bonn Badgodesberg, Galilei Streets, West Germany.

'56

Edward V. Burget, Jr. (M.E.) has been promoted to chief engineer of the Consumer Products Division of Amoco Chemical Corporation. The promotion involved a move to Massachusetts from Wilmington, Delaware, where he had been a head design engineer for the packaging division of Amoco. Prior to joining Amoco he was associated with E. I. du Pont de Nemours and Co., Inc., in the Wilmington area. The Burgets current address is 48 Juniper Brook Rd., Juniper Brooks Estates, Northborough, Mass.

Class of '57 15th Reunion Oct. 20-21, 1972 Be There!

'57

Dr. John H. King (E.E.) recently joined the Information Systems unit of The Upjohn Company in Kalamazoo, Mich. John, who received his Ph.D. from the University of Wisconsin in 1970, has been serving as a lecturer in the computer science department at the University of East Anglia while residing for a time in Nowick, England. A stateside address was not available at press time.

Richard E. Hirst (M.E.) has been named manager of Northeast Sales for the Goss Division, MGD Graphic Systems for North American Rockwell. Hirst, who previously had been a sales engineer for the North American Rockwell division for some seven years, reports completion of a masters at the Newark College of Engineering in 1965. Hirst resides at 42 Van Houton Ave., Chatham, N.J. 07928.

'58

Charles F. Kleptz (M.E.) vice president of Ponderosa, Inc., recently moved the general offices of the company he heads from Kokomo, Ind., to Dayton, Ohio. Says Charles: "The Ponderosa Steak House, which was founded in Kokomo by two partners and myself, celebrated its sixth birthday the end of December with the opening of the 142nd location. We now operate in 15 states. Prior to entering the restaurant franchise business in 1965, Kleptz owned and directed the Kokomo-based Kleptz Engineering Company for five years. Charles, who was chosen for inclusion in the 1969 edition of "Outstanding Young Men in America" forecast that that time the Ponderosa chain would have 100 restaurants by 1970 and would continue to grow from that point. The success story continues. His new address is 4928 West State, Route 55, Troy, Ohio 45373.

Joseph E. Blastic (M.E.) has been transferred back to Indianapolis to assume a position as Indiana Installation Manager for the Service Division of Western Electric Company. Blastic, who recently completed the Bell System's management school, formerly had been assistant manager at the company's operations near Chicago. His current address is 4531 Cranbrook Dr., Indianapolis, Ind. 46250.

'59

Dr. Laurence J. Logue (M.E.) has returned to the classroom and laboratory--this time as assistant professor of physics at Washington College, Chestertown, Md. Dr. Logue completed his Ph.D. in physics from the University of Florida in 1968 and spent 1968-69 as a post-doctoral fellow at the University of Sussex, Brighton, England. He also reports that he recently received a regional driver's license from the Sports Car Club of America and is running a Lola T-200 in the club's Formula Ford races. Mail may be directed to him at 222 Mount Vernon, Chestertown, Md. 21620.

William R. Bock (E.E.), a project director for the Astronautics Group of NASA at Huntsville, Ala., reports he underwent open heart surgery in July. Recovery has been 100 per cent complete with no restrictions. The surgery was performed at Methodist Hospital in Memphis, Tenn., after a coronary augography revealed a congenital restriction in the right coronary artery. Bill's address is 8317 Louis Dr. Huntsville, Ala. 35802.

Gary R. Wetmore (C.E.), sales engineer for the Norfolk office of The Trane Company, reports his registration as a professional engineer in Virginia and the birth, Oct. 13, of a third daughter, Michelle Louise. Mail may be directed to Gary C/O The Trane Co., P.O. Box 62507, Virginia Beach, Va. 23462.

'60

John M. Kirk (M.E.) is a professor of business and commerce at Spring Hills College in Mississippi while working toward a Ph.D. in business administration at Mississippi State University, Starkville, Miss. John, who completed an M.B.A. at Memphis State University in 1967, served as a project engineer for the Midwest Piping Division of the Crane Company in St. Louis and Houston from 1961 to 1965 when he started work on the MBA. John, his wife Karole and three-year-old daughter, Emily Ann, reside at Wood Manor D 12, Starkville, Miss. 39759.

'61

Larry L. Pitt (Ch.E.) has accepted the newly created position of Director of Commercial Development for MCB Manufacturing Chemists, Cincinnati, Ohio. In his new position Pitt is responsible for new business, development of internal capabilities and acquisitions. He formerly was associated with the Mallinckrodt Chemical Works in St. Louis as a product engineer. While in St. Louis he earned an MBA from Washington University in 1970. The Pitts reside at 8136 Asbury Hills Drive, Cincinnati, Ohio 45230.

'62

John S. Walden (E.E.) has been promoted to head of the computer center operations department at Bell Laboratories. In his new position he is responsible for the operation and maintenance of the computers and systems programs used in the Whippany Computation Center, according to Bell Lab officials. Since joining Bell Labs upon graduation, he worked on computer programs for defense systems, general service computer programs and the design of multiprocessor computer operating systems. Formerly supervisor of the Requirements and Analysis group, John earned an M.S. in electrical engineering from New York University in 1964. His address is 10 Paul Drive, Succasunna, N.J. 07876.

Brent E. Robertson (C.E.) recently was named product manager for passenger tires for B.F. Goodrich Company in Akron, Ohio. Robertson, who completed an M.B.A. in marketing from the University of Akron last March, had been an account manager for the company in recent months. Prior to moving into management, he served in various product engineering positions. Brent's address is 1369 Hilton Dr., Akron, Ohio 44313.

'63

Nick J. Kira (E.E.), manager of the computer center of the Indiana-Purdue University at Indianapolis, recently was promoted from assistant professor to associate professor of computer technology on the Purdue faculty. Nick, who often lends the Indianapolis RoseTech Club, and the Indiana province of Alpha Tau Omega fraternity with computing chores, resides at 1201 E. 38th St., Indianapolis, Ind. 46205.

Allen Jannasch (E.E.) has left General Engineering, Portage, Ind., for a position as a systems engineer for Northern Indiana Public Service Company in Valparaiso. Allen, who continued his education and earned a masters in business administration at Indiana State University in 1967, resides at 303 Burlington Road, Valparaiso, Ind. 46383.

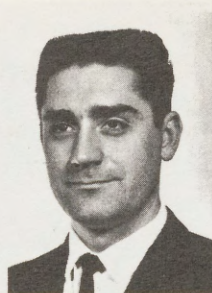
Robert H. Steder (Ch.E.) has been appointed manager of raw materials purchasing for PPG Industries' Chemical Division. Steder, formerly senior buyer at PPG's Barberton, Ohio, chemical complex, joined the company upon graduation and later was foreman of the calcium chloride plant before joining the purchasing department. Bob and his wife, Rosemary, have one son. The Steders reside at 1327 Delia Ave., Akron, Ohio 44320.

Class of '62 Has Reunion, Too!

SPRING 1972



Walden



Blastic

'64

Bruce M. Kopf (M.E.), who joined Ford Motor Company in the car product, planning, product development group a year and one-half ago, currently is chief product analyst for the Mark IV Lincoln. Bruce has had a varied, but interesting career since graduation, having spent two years with Firestone as a race tire engineer traveling extensively in the U.S. and Europe. His next two years were spent with the Corps of Engineers and a tour of duty with the 10th Engineer Battalion in Kitzingen, Germany. In 1970 he received an M.B.A. from the University of Chicago and an M.S. in economics from the London School of Economics (he attended L.S.E. on an international business program scholarship from the University of Chicago). Bruce's current address is 6035 Wing Lake Road, Birmingham, Mich. 48010.

Bryce D. Drake (M.E.) currently is production supervisor at the Indianapolis works of Western Electric Company. Bryce reports he became registered as a professional engineer in Indiana in July and in June of 1970 completed an M.S. in industrial operations from Purdue University. His address is 3510 Lorraine Dr., Indianapolis, Ind. 46203.

Ambassadors

Each month a number of alumni residing in various areas of the country represent Rose-Hulman at a commencement, inauguration or other program of a sister institution of higher education. Following is a list of Rose ambassadors who have represented "Dear Old Rose" in recent months:

Dr. James E. Goddard '28, inauguration of John Paul Schaefer as President of the University of Arizona.

Clyde G. Raeber '23, inauguration of John George Barker as president of Marshall University.

William B. Allard '65, inauguration of George Charles Roche III as president of Hillsdale College.

Dr. L. G. Giacometto '38, inauguration of Bernard Tagg Lomas as president of Albion College.

James C. Skinner '33, inauguration of Gene

'65

Donald L. Endsley (M.E.) recently was promoted to assistant administrator in charge of plant services for Marion (Ind.) General Hospital. Endsley, who formerly was associated with Delta Electric in Marion, joined the hospital last May 1 as chief engineer and subsequently was promoted to his current position of wider responsibility, Jan. 1. His address is 3525 S. Gallitin St., Marion, Ind. 46952.

Willard R. Holland, Jr. (E.E.) has been appointed assistant manager of the Detroit-Wayne Marketing Division of the Detroit Edison Company. Formerly assistant manager of the smaller Tuscola Marketing District, the 1965 graduate served as a staff engineer prior to moving into management ranks. Holland's address is 23918 Rockvord, Dearborn, Mich. 48124.

'66

Robert W. Haddix (M.E.) received a promotion from field engineer to project engineer for Florida Power Corporation in July. He reports his responsibilities cover that of a mechanical construction supervisor at the Crystal River nuclear unit. Mail may be directed to Bob at R.R. 1, Box 354 C3, Crystal River, Fla. 32629.

Darrell L. Millner (Math) is a communications analyst for Associates Marketing and Computer Services Company in South Bend. He moved back to Indiana in February, 1971, after having been in the employ of The Boeing Company in Des Moines, Wash. His current address is 202 N. Le Boulevard de La Paix, Apt. 2531, South Bend, Ind. 46615.

Jack R. Braun (E.E.), who worked toward an M.S. in biological engineering on the Rose-Hulman campus last year, presently is teaching electronics at Burlington County College in Pemberton, N.J. Married to the former Elizabeth P. VanNest in August, 1970, the couple has son, Paul, born in July, 1971. Mail may be directed to Braun at RMCA 223, Burlington County College, Pemberton, N.J. 08086.

William T. O'Rear (Ch.E.) has joined Uniroyal, Inc., as a technical sales representative in the Cleveland, Ohio, area. Bill, who joined Caterpillar Corporation upon graduation, worked in design engineering for a short time and moved to sales engineering at Peoria, Ill., and in Connecticut. His current address is 6505 Marsoe Road, Apt. 321, Garfield Heights, Ohio, 44124.

Elwood Sease as president of Indiana Central College.

Robert J. D. Finrock '32, inauguration of John Edwin Johns as president of Stetson University.

'67

John W. Katzbeck, Jr. (M.E.) has joined ITE Imperial Corporation in Greensburg, Pa., as a design engineer. He reports his responsibilities included the design and development of new methods for transmitting bulk high voltage power. John also is president of the Pittsburgh area chapter of Human Growth Foundation, a group dedicated to promoting and financing medical research into growth problems of children. John is becoming quite a sports car buff. To put it in his words: "Member, Competition & Touring Sports Car Club & Blue Ridge Mountain SCC . . . Autocrossing my 1972 MG Midget (going down the tube buying goodies for it). . . John's address is 6A Stone Villa, Greensburg, Pa. 15601.

Kim David Saunders (Math) completed a Ph.D. in physical oceanography at Massachusetts Institute of Technology and Woods Hole Oceanographic Institute last June. He since spent the summer as a fellow in the Summer Geophysical Fluid Dynamics Institute at Woods Hole before joining the staff at MIT in the Fall. Dr. Saunders reports he has received a N.A.T.O. post-doctoral fellowship for study at the Geofysiske Institutt of the University of Bergen, Norway, during the 1972-73 year. He reports he will be working on models of the circulation of the Norwegian and Greenland seas and how they relate to the formation of the North Atlantic Deep Water. His current address is 11 A Eger-ton Road, Arlington, Mass. 02174.

Gary D. "Pete" Bradham (Ch.E.) has purchased a portion of a sub-contracting business in San Diego and recently opened a branch office in Los Angeles. Following his graduation from Rose, he earned an M.S. in industrial administration from Krannert Graduate School of Purdue University in August, 1970. He then worked as a management consultant for Arthur Andersen Company for one year before entering private business. Mail may be directed to Bradham at 6888 Hyde Park Drive A, San Diego, Calif. 92119.

Ronald P. Glanz (M.E.) is senior engineer in the research laboratories of Westvaco Corporation, Covington, Va. Ron joined Kimberly Clark upon graduation and remained with the company until January, 1971, when he moved to the present position. Mail may be directed to him C/O Westvaco Corporation, Research Laboratory, Covington, Va. 24426.

Larry G. Oldham (M.E.), a manufacturing engineer with the apparatus division of Eastman Kodak in Rochester, N.Y., reports the completion of a master's degree in mechanical engineering from Rochester Institute of Technology last June. Oldham resides at 5 Valleyview Drive, Avon, N.J. 14414.

It's Been 5 Years, Class of '67 Plan Now For First Reunion

1st Lt. James E. Engle (M.E.) has been stationed at Ching Chaun Kang Air Force Base in Taiwan since May, 1971, and is scheduled to serve there until this August. Lt. Engle, who continued his studies at the University of Notre Dame and the University of Michigan following graduation from Rose, was commissioned a second lieutenant in the Air Force in early 1969 and served at Mather Air Force Base, California, prior to receiving the overseas assignment. Mail may be directed to him at 610 32nd Street, South Bend, Ind. 46615.

'68

Capt. Donald E. Baker (C.E.) spent some time on the Rose-Hulman campus in February while on leave after a 15-month tour of duty with the U.S. Army in Vietnam. While in Vietnam Don served as senior engineer advisor to the 9th Army of the Republic of Vietnam (ARVN) Infantry Division. Promoted to captain in December, 1970, he was awarded the Vietnamese Technical Service Medal (First Class), the Vietnamese Engineer Achievement Medal and the Bronze Star while overseas. Following a month's leave, he will be assigned to the 565th Engineer Battalion, Karlsruhe, Germany. He requests mail be directed to the 565th Engineer Battalion, APO, New York 09164.

Harold L. Schroer (Ch.E.) has moved from Evansville to Kankakee, Ill., and a new position as project engineer - new products group for General Foods Corporation. Having joined General Foods upon graduation, his tenure at the Evansville operation was interrupted by a two-year tour of duty with the U.S. Army--the half having been spent in Vietnam. The Schroer's and their young son reside at Samara Avenue, Vaughndale Meadows R.R. 2, Box 221-J, Kankakee, Ill. 60901.

Rolf P. Hill (M.E.) completed his tour of service with the U.S. Army after 18 months in Italy in September and has returned to St. Louis, Mo., and McDonnell Douglas Aircraft Company as a design engineer on the DC-10. Mail may be directed to Hill at P. O. Box 516, St. Louis, Mo. 63166.

David J. Skolnik (M.E.) is working as a design engineer for Saginaw Steering Gear Corp., a division of General Motors Corporation. Assigned to the chassis-new development group, Sholnik has been in the position since shortly after his separation from the U.S. Army last March. Mail may be directed to David at 1191 Coolidge Blvd., Saginaw, Mich. 48603.

Lt. j.g. Richard C. Bennett (E.E.) has completed flight training in the U.S. Navy's navigation area and currently is stationed at St. Inigoes, Md. Mail may be directed to Lt. Bennett at R.R. 2, Montgomery, Ind. 47558.

'69

William G. Anderson (M.E.) has left Texas Instruments to devote fulltime to studies at the John Marshall Law School, Chicago, Ill. Anderson, who expects to complete his law degree in June, 1974, had lived in Dallas since graduation and at the time of his leave was a manufacturing engineer in the Government Products Division of Texas Instruments. His new address is 902 West Cypress, Arlington Heights, Ill. 60005.

Kenneth J. Susnjara (M.E.) has struck off on his own and is president and general manager of Thermwood Standard Corporation in Dale, Ind., a newly formed plastics processor which employs recently developed processing methods in producing decorative simulated wood furniture components for Southern Indiana's numerous furniture manufacturers. Ken resigned a position with Alcoa in Newburg, Ind., in May to enter the challenging venture. His current address is Christmas Lake Village, Santa Claus, Indiana 47523.

Larry D. Olson (M.E.) has resigned his position with General Electric Company in Cincinnati to enter the University of Kentucky Medical School. Larry reports he expects to complete his M.D. with the Class of 1975. Having entered medical school in September, he was an aircraft engineer in the product engineering section at the time he left General Electric. His current address is 1008 Slashes, Lexington, Ky. 40502.

John A. Jacobi (M.E.) is keeping busy between his duties as an industrial engineer for the U.S. Aviation Systems Command near St. Louis, the rigors of part time study in law at the St. Louis School of Law, the fun of being a new father and more recently his election as secretary-treasurer of the reorganized St. Louis Rose-Tech Club. The Jacobis became the proud parents of daughter Jill Ann Nov. 24, shortly after their move to St. Louis from Texas where John recently completed a masters at Texas A. & M. The Jacobis address is 1734 Limetree Lane, Creve Coeur, Mo. 63141.

ECHOES ALUMNI MAGAZINE

Edward A. Neu III (M.E.) currently is putting his mechanical engineering to good use as an engineer on the AVCO-Lycoming AG7-1500 Gas turbine project for heavy tanks while stationed at the U.S. Army Tank-Automotive Command (TACOM) in Warren, Mich. Neu, who went to work for Cummins Engine upon graduation, was drafted in October, 1970. He expects to complete his tour at Warren and is looking forward to rejoining Cummins upon separation from service. Neu's address is 28490 Mound Road, 22 C, Warren, Mich. 48092.

Morris K. Belknap (Math-Econ) has returned to civilian life after completing his U.S. Army tour with a six-month stint with the Saigon Support Command in Vietnam. Moe reports for the time being he is looking for a job and waiting for graduate school to begin. Prior to his Vietnam tour, Capt. Belknap completed a 17-month assignment in Germany where he fell in love with his new Porche 914/6 and other things indigenous to the area. Mail may be directed to Morris at 351 Mockingbird Valley Road, Louisville, Ky. 40207.

1st Lt. Thomas C. Lausman (Chem.) currently is assigned as a chemist for the U.S. Army Electronics Command, Ft. Monmouth, N.J. He is serving in the R & D section, and recently published a paper on his work and was awarded the certificate of Merit from the Electronics Command for his work with dielectric materials. Tom reports he will complete his tour in May and is looking for a job. Mail may be directed to Lt. Lausman at 4 Willow Dr., Apt. 14A, Ocean, N.J. 07712.

Edward A. Shaw (C.E.), a civil engineer for the Naval Air Development Center of the Department of the Navy, has moved to North Carolina and a project at Pope Air Force Base near Fayetteville. Ed reports he received registration as a land surveyor in the State of Pennsylvania last June. Having joined the Department of Navy upon graduation, the Shaws previously have been assigned in California and Pennsylvania. Their current address is 3501 Rose Hill Road, Fayetteville, N.C. 28301.

Joseph A. Vumbaco (M.E.) has accepted a new position as Assistant Public Utilities Director for the Town of Wallingford, Conn. Associated with Collins Radio Company in Dallas since graduation, he made the move this fall. Joe and his wife, Linda, reside at 1 Elmhill Drive, Wallingford, Conn.

Burton E. Rossiter (M.E.) has been relieved of active duty with the U.S. Army and currently is working toward a master's degree in mechanical engineering at Rose-Hulman. Prior to entering the military, he worked for Public Service Indiana, which granted him an extended leave of absence to complete the advanced degree. The Rossiters reside at R.R. 25, Box 398, Lot 16, Terre Haute, Ind. 47803.

PFC. Robert L. Landis (Ch.E.) recently completed a 13-week still photography course at the U.S. Army Signal Center and School, Fort Monmouth, N.J., and currently is awaiting a permanent assignment as an aerial photographer or photojournalist within the Signal Corps. Prior to entering service in April, he was a process engineer in the Hydrocarbons & Polymers Division of Monsanto Company in Houston, Tex. Mail may be directed to Landis at 4045 Linkwood Apt. 722, Houston, Tex. 77025.

Pete R. Fowler (E.E.) has left General Electric Company to return to his hometown Dayton, Ohio, and a position as a semiconductor components engineer for NCR (formerly National Cash Register Company).

The Fowlers' new address is 522 Shroyer Road, Dayton, Ohio 45419.

'70

Ronald J. Nastav (M.E.) recently was commissioned a second lieutenant in the U.S. Air Force upon graduation from Officer Training School at Lackland AFB, Texas. Selected for OTS through competitive examination, he now is assigned to Wright-Patterson AFB, Ohio, for duty in a unit of the Air Force Systems Command which manages research and development of USAF aerospace systems. Prior to entering the military he was an experimental engineer for the United Aircraft Division of Pratt and Whitney Aircraft Corporation in Riviera Beach, Fla.

2nd Lt. Larry R. Loudermilk (M.E.), who joined the First Infantry Division stationed at Ft. Riley, Kansas, in July, recently participated in Reforger III to Germany as a forward observer for B Company Battery, First Brigade of the Seventh Field Artillery, First Infantry Division. Granted military leave from Cwerpillar Tractor Company in Peoria, Ill., last April, he attended the Officers' Basic Course at Ft. Sill, Oklahoma, prior to his current assignment. Mail may be directed to Lt. Loudermilk at 900 Gardenway, Apt. 12, Manahatta, Kan.

Paul G. Earle (Bio.E.) recently promoted to field engineer in the Follow-Up Services Department of Underwriters Laboratories, Chicago. Having joined Underwriters Laboratories upon graduation, he served as assistant engineer for a year prior to the recent promotion. His current address is 1318 East Algonquin Road, Apt. 2E, Schaumburg, Ill. 50172.

Tim J. Hollack (Math) is attending Ohio University in Athens on an assistantship and is working toward a masters in mathematics. Enthusiastic in his new endeavor, he reports his work paid 4.0 dividend (grade point average) last quarter. Hollack's address is 13821 Liberty Ave., Cleveland, Ohio 44135

Bruce P. Williams (Bio.E.) presently is a second semester sophomore in the Indiana University School of Medicine. In addition to his fulltime job as medical student, Bruce is working as a research associate in the Department of Physiology where he reports the work is interesting and challenging. Says Bruce in his note to **The Echoes**: "... My work is interesting, but lately medical school in itself has been a fulltime job. Hopefully, this semester I will be able to devote more time to my work. It's challenging to apply the techniques I gained at Rose to medical problems. I have read that a pre-med program is being started at Rose. I'm looking forward to seeing increasing numbers of Rose men here at the School of Medicine." Prior to entering medical school, Bruce was associated with the research department of Chasm Pfizer & Co., Terre Haute. Williams' address is 5917 Beachview 311, Indianapolis, Ind. 46224.

Gary S. York (Ch.E.) has completed Goodyear Tire & Rubber Company's development training program and currently is a pilot plant technical supervisor for Goodyear. Married to the former Julie Ann Scanlan of Norton, Ohio, a month before graduation from Rose, the Yorks are expecting their first child at the end of May. In his note to **Echoes**, York pointed up a possible mini-RoseTech club in the Akron area comprised of younger alumni including York, Roger Ward '71, Richard Killion '70, Harry R. Harrison '71, Harry Cline '69, Phil Gerhardt '68, Ray Jirousek '70 and Gary Kelm '70. York's current address is 274 Quincy Ave., Barberton, Ohio 44203.

'71

Robert P. Penno (M.E.), currently in General Electric Company's engineering sales training program, has moved from Pittsfield, Mass., to Hickory, N.C. He enthusiastically reports a fine "stopover" in Pittsfield where he was selected president of the Pittsfield chapter of Technical Marketing Organization for six months. While enroute to North Carolina in February Bob dropped by campus and later checked in at Penno Publications, a fun division of Sigma Nu.

Glover "Bud" Ellis (C.E.) has moved from the AMAX Coal Company's Thunderbird Mine near Shelburn to the Old Ben Coal Company's King's Mine at Princeton effective Feb. 1. Since the move the Elises have purchased a home and are living at 504 N. West Street, Fort Branch, Ind. 47533.

David R. Hougland (M.E.) and his wife, Karen, are the proud parents of a daughter, Laura Michelle, born Dec. 17, 1971. Dave works for General Electric in Louisville. The Houghlands reside at Mallgate Apt. B 4, 705 Quails Run, Louisville, Ky. 40207.

In Memoriam

'04

Clyde E. Tipton (M.E.) died May 31, 1971 in Brea, Calif. Prior to this retirement some years ago he was supervisor of apprentices for the Union Pacific Railroad.

Roy W. Hill (E.E.) died Nov. 14, 1971. Prior to his retirement he had been patent attorney and spent most of his career in Chicago.

'06

John W. Cannon (M.E.), retired farmer and inventor died Feb. 17 in Pennington, N.J. A prolific inventor, he was the holder of 48 patents.

'09

Henry J. Bangert (Ch.E.) died in November, 1971, in Boston, Mass. Prior to his retirement he had been in private business as a consulting chemist in the Grand Rapids, Mich., and Cincinnati, Ohio, areas.

W. Rolland Maddex (E.E.) died Jan. 23 in Montclair, Calif. Mr. Maddex worked with various central Indiana utilities during his first 12 years out of Rose, turning in 1922 to his own private business in Richmond, Ind.

'16

Belated word of the death Feb. 17, 1971 of **William H. Motz** (M.E.) has been received at Rose. Prior to his retirement he was supervising engineer for Jefferson Ice Co., Rock Island, Ill.

George G. Anderson (M.E.) died Jan. 24 in Detroit. He formerly was manager of exports for the A.M. Blower Corporation of Detroit.

Sam P. Stone (E.E.), New Orleans architect and engineer responsible for many of the city's prominent buildings, died Sept. 7, 1971 in New Orleans. He remained active in Stone Bros., Architects until his death and was a consultant to Avondale Shipyards.

'22

Donald L. Griffith (Ch.E.) died Nov. 17, 1971. Prior to his retirement, he was sales coordinator for National Castings Company and resided in Houston, Tex.

18

Charles D. Baker (C.E.), former mayor of Las Vegas, Nev., died Feb. 17 in Las Vegas. The Terre Haute native moved to Las Vegas upon graduation where he was hired to teach mathematics and coach basketball in that city. He gave up teaching to become city engineer. He entered the political area in 1940, serving the state legislature both as a representative and senator until 1950 when he was elected to his first of two four-year terms as mayor of Las Vegas.

William C. Turner (M.E.) died July 21, 1971 in Sedona, Ariz. Prior to his retirement he had been a sales engineer for Bailey Meter Company.

'23

Edmond E. Dunlap (Ch.E.), formerly an engineer for the Indiana State Highway Department, died Oct. 26, 1971 in Indianapolis where he had made his home for several years.

'26

Harry L. Willson (E.E.) died Oct. 11, 1971. Prior to his retirement, he was in engineering sales for the apparatus division of General Electric Company.

'27

Wilbur L. Wilson (C.E.) died Feb. 27 in Orlando, Fla. Prior to his retirement to Florida, Mr. Wilson was employed by the Lewis-NASA Research Center in Cleveland, Ohio.

'28

Homer E. Holmes (E.E.) died Feb. 16 in Laguna Hills, Calif. A retired electrical engineer for North American Company, he has worked and resided in California for 40 years.

'29

Galen B. Clark (E.E.), a member of the Class of 1929 who officially received his B.S. degree in 1965, died Jan. 31 in Sarasota, Fla. Although he did not receive his degree until near his time for retirement, Mr. Clark pursued his dream of engineering with General Electric Company where he rose to district manager of the X-Ray department in Philadelphia.

Mr. Clark's unusual "commencement" story:

TERRE HAUTE, Ind. Oct. 8, 1965 (Special) -- It took Galen B. Clark of Collegeville, Pa., longer than most to get his college degree -- 36 years to be exact -- but get it he did, at a special convocation today at Rose Polytechnic Institute.

Amidst all the pomp and splendor of academic robes and the procession of professors normally attendant to such an occasion, Mr. Clark was awarded a Bachelor of Science degree in electrical engineering dated 1929 -- the year he would have graduated from the 91-year-old men's engineering and science school had he completed the course of instruction. He didn't, back in 1929.

Then he was just two credits short of graduation. He failed an economics course. Arrangements were made for him to make up the failure through correspondence with his professor but then he failed his re-examination and his degree was withheld.

Later he took an economics course at the University of Colorado and passed it with a "D." But when he applied for a transfer of the credit from this course to his incomplete Rose program, he was denied. It was ruled that Rose's policy should prevail: that no grade less than "C" be transferable.

The lack of a college degree didn't stop Mr. Clark from pursuing his dream. After a full and rewarding career he retired as Philadelphia district manager of General Electric's x-ray department.

His case was recently brought to the attention of the present administration of Rose Polytechnic Institute. After careful study a recommendation was made to the faculty and board of managers and it was unanimously agreed to grant Mr. Clark his degree at long last.

'31

Orville A. Evans (C.E.) died Jan. 31. He remained active in engineering until his death, having been District Engineer of District 3 of the Illinois Division of Highways for 20 years.

'40

Walter T. Zehnder (Ch.E.) died June 26, 1971. At the time of his death he was senior project engineer for S.B. Penick Company in New Jersey.

'54

William B. Fowler (E.E.), a systems engineer for the U.S. Air Force, died Nov. 20, 1971 in Cherry Valley, Calif., where he had made his home the last three years.

'65

Robert R. Finney (M.E.), and his bride of five months, the former Kay Geiger, were killed in an automobile accident Nov. 19 near Sikeston, Mo. Mr. Finney was a project engineer for the Mueller Company of Decatur, Ill., and Mrs. Finney was the women's editor for the Decatur Herald-Review.

ECHOES ALUMNI MAGAZINE

SPRING

Arthur Paige, Auto Engineer

In a letter addressed to the Rose Polytechnic Alumni Association, September 23, 1969, that late Arthur James Paige wrote: "My enterprise, automotive engine development, is a one-man project--I invent, design, make patterns, machine parts, assemble, test, patent and sell my products." The self-styled job description came from a man more than 87 years old.

Two years and some months later, January 10, 1972, in Redondo Beach, California, the enterprise ended. Arthur J. Paige, a 1902 high-honors graduate and long-time ambassador of both Rose and engineering, was dead.

The job description typically characterized Paige's zest for living and the career he began while still a student at Rose Polytechnic Institute. Indeed he was a leader in the automotive engine industry.

Born in Terre Haute, February 18, 1882, Paige entered Rose at the age of 16 in 1898 and was graduated with a B.S. degree in mechanical engineering in 1902. He was the recipient of the Heminway gold medal at graduation.

An engineering enterprise started at Rose in the last century and conducted with a continually youthful spirit and ambition ended January 10, 1972.

During his junior and senior years at Rose, Paige built a complete four-passenger automobile, piece by piece, with a gasoline engine of original design, clutch and transmission axle, frame, body, et cetera. Paige described the car in detail in an article entitled "The Construction of an Automobile" of THE ROSE TECHNIC, March, 1903. It is reported to be the first car driven on the streets of Terre Haute.

In the fall following graduation, Paige began work at Rose as an instructor in drawing and remained as a member of the faculty until 1908. He had earned his M.S. in 1906 and followed with an M.E. in 1909. And while teaching at Rose, Paige built his first gasoline turbine and was granted patents upon a rotary gas engine.

In September, 1908, Paige joined the Fort

Pitt Motor Manufacturing Company, New Kensington, Pa., as superintendent and general manager. In 1909 he became general manager of the Pittsburgh Motor Car Company in Pittsburgh, and married Edith Mary Fulton on Christmas in Elmira, N.Y.

Paige returned to Indiana in 1910, joining the National Motor Vehicle Company in Indianapolis, but moved to the Western Motor Company in Marion the next year. In 1912 Paige rejoined National Motors and both designed and superintended the construction of the winner of the 1912 Indianapolis 500-Mile Auto Race.

The 1912 winner at Indy was a four-cylinder auto which, like most race cars of the day, was stripped down stock car given special attention. Indianapolis native Joe Dawson drove Paige's design across the finish line for the checkered flag in the classic's second running. It was a darkest-of-dark navy blue roadster with the white number eight and is now displayed at the Speedway Museum. Dawson overtook opposing driver Ralph DePalma and his Mercedes, which quit because of engine failure with two laps remaining after leading most of the race, for the victory.

From 1915 to 1946, Paige resided--as would only seem appropriate--in Detroit, working stints for General Motors Corporation, Chrysler Corporation, and himself in the automotive industry. He worked to further develop such things as internal combustion engines, gas turbines, rotary aircraft engines, and two-stage carburetors.

After leaving Detroit the automobile industry pioneer moved to California, where he resided for most of the remainder of his life, active up to the last moments with his work and dreams--engines.

"Mr. Paige had a tremendously youthful spirit and sense of ambition for his work even when I met him at a RoseTech Club meeting in California in the middle '60s," Dr. John A. Logan recalled after hearing of the death. "He was an extremely admirable man."

Another opinion enclosed in a letter from one of Paige's fellow RoseTech Club members said, "We will certainly miss Arthur J. Paige," and referred to his faithful work in the organization.

Paige is survived by a son, Arthur of Lomita, Calif.; a daughter, Isabel Johnson of Inglewood, Calif.; seven grandchildren; and one great-grandchild. Burial was in Woodlawn Cemetery, Detroit.

Catapult

Know a boy interested in engineering? If so, tell him about our fine program.

If you feel certain that the high school kid down the street is going to reduce the block to ashes via his own private chemistry lab, give Rose-Hulman his name and address.

No. We won't turn his name over to the CIA or have any one pull up in front of his house with a siren blaring. Perhaps we will be able to lure him away from his lab into ours, though -- at lease for the summer, or a part of it.

If you didn't realize it, Rose-Hulman has an excellent summer program for high school boys. And we feel that it will probably inspire him to do constructive lab work.

Perhaps our program, entitled "Operation Catapult," will be the salvation of your block.

Operation Catapult is scheduled for its sixth consecutive summer in 1972. A projects-oriented program for those who are--or possibly are--interested in engineering and science. It is slated for two four-week sessions (June 11-July 6 and July 9-August 3).

Operation Catapult is interested in the high school kid down the block. That is, if he is interested in:

1. Supplementing his previous learning--this is not a remedial course
2. Exploring fundamental scientific principles and systems
3. Living in a campus setting
4. And, above all, enjoying himself.

But there are sacrifices involved as he must pay an all-inclusive \$250 fee for room, board and guidance by some of the finest instructors anywhere. - Instructors like Herman A. Moench, vice president of the Institute; Alfred R. Schmidt, professor of mathematics; Dr. Oran M. Knudsen, professor of chemistry; and William D. Schindel, a visiting instructor of mathematics on leave from IBM. And he must give up four weeks of a summer's opportunities to do the things kids do in the summertime.

If such a boy does, in fact, live down the block, please contact us with the detachable information card opposite this page. We'll take it from there.

Oh, yes, one final note: if the kid happens to be your own, by all means, SEND HIM!

More about . . . European Trip

(Continued From Page 11)

. . . leaving in one hour, 40 minutes . . . don't make ferry, don't make game . . . don't make game, don't get free breakfast and bed . . . made it . . . about 10 seconds to spare . . . hour and a half channel ride . . . landed at white cliffs of Dover . . . English roads are like Parisian streets--warmed over cowpaths . . . four-hour drive later we arrived . . . beat English All-Stars (made up of 2/3 English National team), 94-90 . . . in overtime . . . played good ball . . . no Americans on this team . . . courteous crowd . . . cold gym . . . reception after game . . . food and fellowship . . . reserved evening . . .

12/30 . . . on road to Leeds . . . divided highway, straight north . . .

missed English countryside . . . arrived Leeds, 2:30 p.m. . . stayed at University . . . BBC-TV wanted interview . . . all over England on 6:00 news . . . won, 104-79, over Yorkshire All-Stars . . . NO heat . . . could see your breath . . . packed gym--everyone had coat, hat, gloves . . . reception after game . . . fans curious about basketball . . . eighth game in 11 days . . . a lot of traveling . . . not much sleep . . . felt good about winning . . .

12/31 . . . back to London . . . afternoon tour . . . Tower of London . . . St. Paul's . . . New Year's Eve in London . . . Trafalgar Square was WILD . . . 100,000 latent lunatics . . . I was in London in 1958 for New Year's--hasn't changed much . . .

1/1 . . . on road to catch hovercraft . . . stopped at Westminster Abbey, Parliament, Big Ben, and Buckingham Palace . . . hovercraft

running this time . . . like something out of science fiction--weird looking, loud, vibrates . . . but it is fast . . . 25-minute return trip . . . arrived France--one piece . . . everyone anxious to get back to Luxemburg . . . heading home . . . stopped at French grocery store . . . sandwich assembly line on the hood of one of the cars . . . arrived Luxemburg, 11 p.m. . . steak . . . everyone feeling good . . . great trip . . . no accidents . . . schedule went like clockwork, almost . . . made it financially . . .

1/2 . . . slept in . . . ready for plane . . .

All this sandwiched between car washes, raffle tickets, waiting, saving, planning, packing and waiting some more stateside and a 36-hour Icelandic delay on the European side of a trip and its memories.

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