

Spring 1973

Volume XII - Issue 1 - Spring, 1973

Echoes Staff

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ECHOES

Rose-Hulman Institute of Technology



SPRING 1973

ECHOES

ALUMNI MAGAZINE

Spring, 1973

Vol. XII, No. 1

ROSETECH ALUMNI ASSOCIATION

EXECUTIVE OFFICERS 1972-73

Vern E. Whitehouse '40, President
Frederick J. Bogardus '32, Vice Pres.
Anthony G. Blake '31, Sec.-Treas.

COMMITTEE CHAIRMEN

Homecoming Wayne L. Loving '50
Fund Raising John C. Fenoglio '59
Student Recruitment

Fred W. Goetsch '57
Rose Tech Clubs Vern W. Fellows '62
Awards and Recognition

Richard A. Mullins '40
Continuing Education

Richard L. Brown '59
Senior Orientation

Thomas L. Reese '58

ALUMNI MEMBERS OF THE BOARD OF MANAGERS

Adam K. Grafe '25

1970 to Annual Meeting 1974

John T. Newlin '43

1972 to Annual Meeting 1976

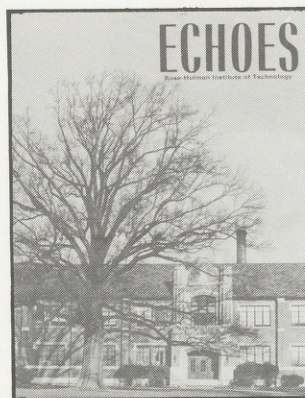
W. Kent Harris

Editor



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The Cover

As Rose-Hulman embarks on its second century of excellence, the Main Building continues to be the focal point of the campus. The center walk and senior bench are gone, but the venerable oak echoes a rich heritage of excellence in undergraduate engineering and science education.

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New Excitement at 'Dear Old Rose'

As we head "Across the Campus" in the Spring of 1973, there is a new excitement in the "old" school.

While it is business as usual in the classroom, many exciting projects are under way. Students are working overtime in new offerings such as Technology Assessment and World Dynamics. On the greasy hands or practical side, they have built a concrete canoe and are re-engineering a multi-terrain vehicle for competition against students of other engineering schools. And there is the task of designing and building a float for this year's "500" Festival.

The Centennial Campaign is currently being carried to 30 U.S. cities in quest of \$5 million for the final phase of Rose-Hulman's exciting 10-year Centennial Development Program. And the Centennial Celebration, scheduled for the calendar year 1974, is taking shape. In short, Rose-Hulman is a beehive of activity.



Come with us now in *The Echoes* and read about the election of three distinguished alumni--Dr. Abe Silverstein, Dr. C. Chester Stock and Burt F. Raynes--to the Board of Managers (Page 2). President Logan lends his expertise as an environmental health engineer to the people of Guatemala, while the Centennial Celebration Steering Committee plans a party (Page 3).

The promotion of six key administrators is reported on pages 4 and 5, while pages 6 and 7 and the center spread are devoted to the Centennial Campaign. Students take center stage on pages 10 and 11, with the balance of the Spring *Echoes* containing "News From Alumni." Response was gratifying with men from the Class of '05 to the Class of '72 reporting in.

Silverstein, Stock & Raynes Join Board

The Board of Managers of Rose-Hulman approved a \$3.5 million budget for the 1973-74 academic year and elected three distinguished alumni to its ranks during the Winter meeting Friday, Feb. 23.

Named to the Board of Managers were **Dr. Abe Silverstein**, NASA's first director of space flight programs; **Dr. C. Chester Stock**, vice president of the Sloan-Kettering Institute for Cancer Research in New York City; and **Burt F. Raynes**, chairman and chief executive of Rohr Industries, Inc., Chula Vista, Calif.

The election of Silverstein, Stock and Raynes brings to 27 the number of members on the board which in October voted to increase its size from 24 to 30 members.

A native of Terre Haute and a 1929 graduate of Rose-Hulman, Dr. Silverstein was associated with the U.S. space program for 40 years prior to his retirement in 1969. Head of the NASA-Lewis Research Center in Cleveland, Ohio, for 20 years, he was a central figure in the formulation of the National Aeronautics and Space Administration.

During his career Silverstein has made important contributions in the fields of aeronautics and astronautics and of jet engine propulsion for aircraft and rocket engine propulsion for spacecraft.

Both the Lunar Orbiter and the Surveyor spacecraft (which accomplished the first soft landing on the moon) were powered by rockets developed at the Lewis Research Center. Dr. Silverstein was also responsible for advances in the design of supersonic propulsion experiments.

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

He currently is Director of Environmental Planning for Republic Steel Corporation, Cleveland, and is a driving force behind Cleveland's proposed \$1 billion jetport in Lake Erie.

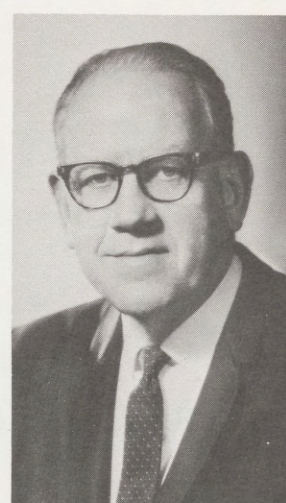
Dr. Stock, long recognized as one of



Abe Silverstein



C. Chester Stock



Burt F. Raynes

the principal architects of the chemotherapy program in cancer research, was graduated first in his class at Rose-Hulman in 1932. The Terre Haute native continued his education, earning a Ph. D. in physiological chemistry from Johns Hopkins University in 1937 and an additional post-graduate degree in medical bacteriology from New York University Medical College in 1942.

Following distinguished service in various capacities for the U. S. Government during World War II, he joined Sloan-Kettering in the division of chemotherapy and rose through various scientific directorships to his current position.

Perhaps the highlight of his career came in 1965 when he was one of three of the nation's leading scientists honored by the Alfred P. Sloan Foundation of New York for outstanding contributions in the field of cancer research. The award included financial support for cancer research with the world's most prominent researchers in Israel and the Soviet Union.

A native of Clinton and a member of the Class of 1937, Raynes entered the aircraft industry in 1938. He was a chief officer in the founding of Rohr Industries, Inc., (known then as Rohr Aircraft Company) two years later.

He rose through engineering positions to management, becoming vice

president of manufacturing in 1953. Raynes subsequently was named senior vice president in 1959 and president and general manager in 1963--a position he was to hold until his current assignment in 1970.

Raynes currently is serving as 1973 chairman of the board of directors of the National Association of Manufacturers.

In announcing the budget for the 1973-74 academic year, Chairman Benjamin G. Cox stated that the \$3.5 million figure represents an increase of 1.7 percent over the 1972-73 budget.

Cox commended the administration and faculty for exercising fiscal responsibility at a time when privately supported colleges and universities are facing problems on a number of fronts.

Faculty promotions. In other matters, the board approved the promotions of six members of the faculty. Dr. Donald C. Chiang of mechanical engineering and Dr. Noel E. Moore of chemical engineering were promoted from associate professor to the rank of professor.

Promoted from assistant to associate professor were Dr. Bruce R. Danner of physics and Don L. Dekker of mechanical engineering. William D. Schindel of mathematics and Dr. Dennis A. Lewis of chemistry were moved from instructor to assistant professor.

Concerned Prexy

Logan Consulting Trip Aids Rural Guatemala

Most people envision the president of a college or university as a scholarly, gray-haired person set apart from the "real world" in his academic tower.

To be sure, Rose-Hulman President John Logan is scholarly. And his hair has some spots of gray.

But his door is always open and as a professional engineer he is keenly concerned about what goes on in the real world--every remote corner of it. His concern for man, particularly from the standpoint of the environmental health engineer, has taken the Rose-Hulman leader to the continents of Asia, Africa and South America in recent months.

Dr. Logan's latest assignment in mid-January took him to Guatemala where he teamed with a nutritionalist from the University of Chicago and a medical educator from the University of Toronto in the evaluation of a project aimed at solving a chronic nutrition problem through the introduction of public health measures in rural Guatemala.

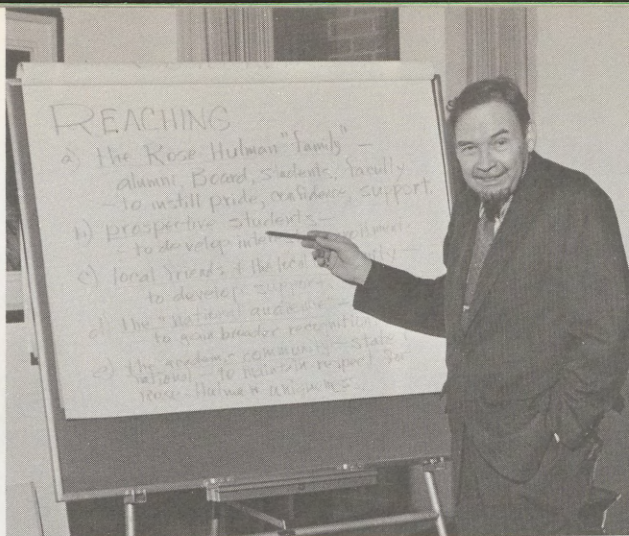
Briefly stated, the people of the rural area under study receive only a fraction of the nutritional value of the food they consume due to infestation of parasites and a general deficiency in public health measures such as water purification, sewage disposal and personal hygiene that developed countries take for granted.

Undertaken by the Agency for International Development (AID) of the U. S. State Department and carried out jointly by the University of North Carolina and the Nutritional Institute of Central America and Panama, the program centers on two experimental villages.

One is a control village, while the other is introduced to modern public health measures. Through this program and provision of essential services and education, it is hoped that the project will serve as the first step in the social and economic development of the rural areas of this central American nation.

Messrs. Schmidt '49, Mees '31, Andrews '74, Reeves '58, Sisson, Flittner, Moench '29 and Harris at work on Centennial.

Spring, 1973



Dr. Moench '29 outlines goals for Rose-Hulman Centennial Year

Look Back, Look Ahead. . .

Countdown Begins For Centennial 'Blast'

For nearly 100 years "Dear Old Rose" has gone quietly about the business of being one of the finest undergraduate colleges of engineering and science in the world. Next year--during the Centennial Year--the college will take a well-deserved bow through a sincere commemoration of 100 years of service and a time of honoring alumni and others who have helped make it all possible.

Planning for the centennial celebration, which has been on-going for nearly four years, has moved into full swing as the Centennial Celebration Steering Committee is firming up dates, budget and other details for what Board Chairman Benjamin G. Cox terms "the biggest celebration Rose-Hulman and the Terre Haute community has ever experienced."

Headed by Robert T. Mees '31 and co-chaired by Drs. Richard F. Bergmann '18 and Herman A. Moench '29, the central objectives are to look back, look ahead and celebrate--celebrate with a capital "C".

Simply stated, the objectives are:

1. To celebrate one hundred years of service by Rose-Hulman Institute to the community, the state, and the nation.

2. To commemorate the accomplishments of the first century as a means of instilling pride in Rose-Hulman, in the students, faculty, alumni and friends of the Institute.

3. To launch new methods and programs for broadened educational opportunities in engineering and science.

4. To gain broader recognition for Rose-Hulman as a means of attracting students and financial support from a wider area.

Plans point to an opening kickoff convocation in January, 1974, and distribution of Dr. John Bloxsome's history of the college.

Prof. Alfred R. Schmidt '49 is heading the special events planned for the Centennial year, and has named chairmen to handle such things as Commencement, Homecoming, a Centennial "all-comers" tournament between 100-year-old men's colleges Wabash, University of the South, Kenyon and Rose-Hulman.

Alumni who have suggestions for the Centennial are requested to contact Chairman Mees or other committee members.



'1st Team' Administration Promoted

Six key administrators, whose responsibilities range from making the initial contract with prospective students to carrying out every detail of the Rose-Hulman education to students, alumni and other constituencies, received promotions during the Winter meeting of the Board of Managers in February.

Dr. Herman A. Moench, vice president and holder of the college's only endowed academic chair, was appointed Senior Vice President, while four other top administrators were named vice president in their respective areas of responsibility.

Newly appointed vice presidents are:

Dr. James B. Matthews, promoted from Dean of the Faculty to Vice President for Academic Affairs and Dean of the Faculty;

Ralph M. Ross, promoted from Dean of Student Affairs to Vice President and Dean of Student Affairs;

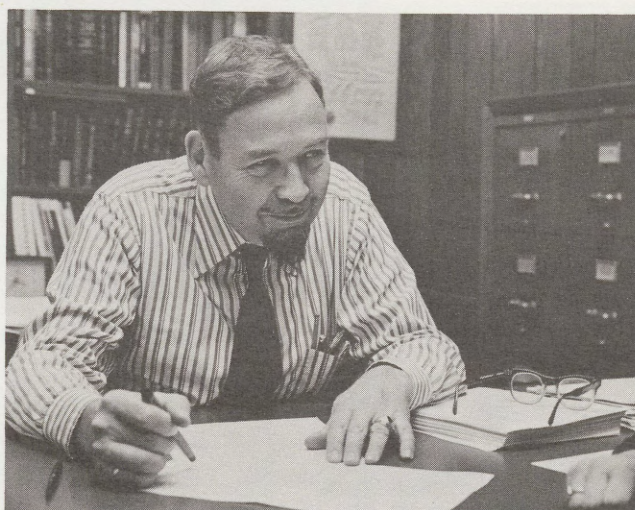
Ronald G. Reeves, promoted from Director of Development to Vice President for Development and Public Affairs; and

Robert T. Willets, promoted from Business Manager to Vice President for Financial Affairs.

Duncan C. Murdoch, meanwhile, was promoted from Director of Admissions to Dean of Admissions as Rose-Hulman's admissions function was removed from the development area of administration and made a separate entity, reporting directly to the president.

A native of Terre Haute, Dr. Moench was graduated from Rose-Hulman in 1929 with a B. S. in electrical engineering. He joined the faculty the following year and, with the exception of leaves for graduate work at the University of Michigan (M.S.E.E., 1935) and for military service during World War II, has since served the school as a teacher, department chairman, dean, vice president and twice as acting president.

After a 20-year tenure as professor, he was named chairman of electrical



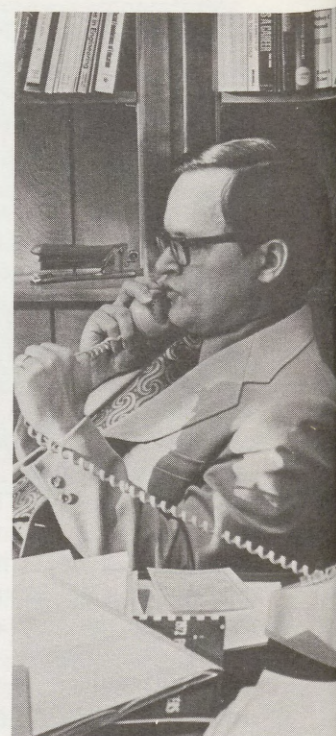
Herman A. Moench
... *Students Come First*

engineering in 1953, Dean of Engineering in 1954, and Dean of the Faculty in 1962. In 1966, Dr. Moench was appointed vice president and named to an endowed chair, the Josephus Collett Distinguished Professor of Engineering. Rose-Hulman conferred the honorary Doctor of Engineering degree on him in 1971.

Long active in professional engineering circles, he has been a director of the Board of Registration for Professional Engineers for more than 20 years. Two years ago, he was appointed vice president of the National Board of Engineering Examiners.

Ross has been a member of the Rose-Hulman faculty and administration since 1946 in positions ranging from instructor in mathematics to Dean of Student Affairs. The Putnam County native earned an A.B. in mathematics and physics from DePauw University in 1933 and an M.A. from Indiana University in 1938.

Advancing to full professor in 1955, Ross became the college's first Dean of Student Affairs in 1961 as Rose-Hulman planned its expansion from 400 students to the present 1,100. In his position, he is responsible for student programs, including counseling, financial aid, food service, housing and athletics and extra-curricular activities.



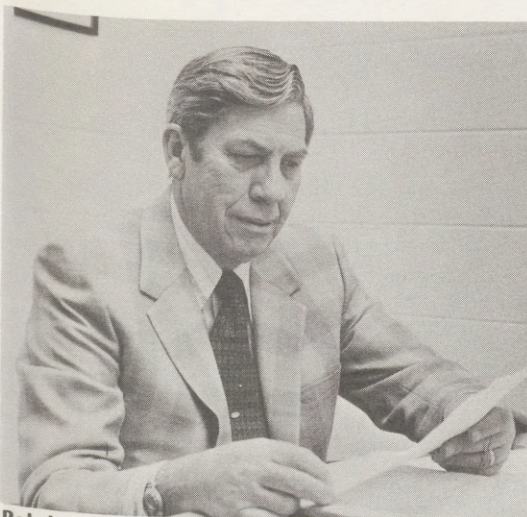
James B. Matthews
... *Insists on Good Teaching*

Dr. Matthews, who is responsible for administration of academic programs, has been a member of the faculty and administration since 1956. A graduate of Rose-Hulman in 1954 with a B.S. in mechanical engineering, he continued his education with an M.S. at the Massachusetts Institute of Technology in 1959 and a Ph.D. from the University of Arizona in 1966.

He advanced through professorial ranks and was appointed professor and chairman of mechanical engineering upon his return to the campus from post-graduate school in 1966. Dr. Matthews was named Dean of the Faculty in 1970.

Reeves, who is responsible for development and fund-raising, alumni affairs and public relations functions, is a 1958 graduate of Rose-Hulman in electrical engineering.

He joined the administration as assistant director of development in 1967. Reeves previously had been associated with the Visqueen Division



Ralph M. Ross
...Tough, But Fair Dean

of Ethyl Corporation where he rose through engineering positions to division engineering supervisor in charge of planning and design of facilities within the division.

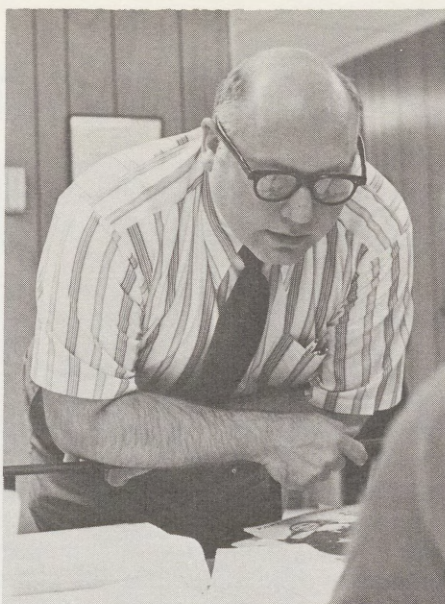
Reeves was appointed Director of Development in 1970 and given the task of developing the final phase of Rose-Hulman's multi-million dollar Centennial Development Program.

Col. Willets came to Rose-Hulman in 1965 as professor of military science and commanding officer of the school's U.S. Army R.O.T.C. program.

Upon his retirement from the Army in August, 1969, he was asked to stay as business manager. He was graduated from the University of Maine in forestry in 1941 and soon after joined the Army as a private, and was released from active duty in 1946 with the rank of captain.

Following four years in the hardwood industry of the Northeast, he was recalled to active military service with an engineer advisory group in 1950, and subsequently was promoted to major in 1951, lieutenant colonel in 1959 and full colonel in 1966.

He held command assignments in engineering in Europe and Southeast Asia from 1959 until his assignment at Rose-Hulman and earned an M. B. A. at Lehigh University in 1961.



Ronald G. Reeves
...Friendly Fund-Raiser

A native of Beech Grove and a 1961 graduate of Hanover College in business administration and economics, Murdoch entered the college admissions field at his Alma Mater upon graduation.

He came to Rose-Hulman two years later, and in 1966 was named associate director of admissions. He subsequently was appointed director of admissions in 1968.

Murdoch has continued his education at Indiana State University, earning an M.S. in economics in 1969.



Duncan C. Murdoch
...Tops in Admissions



Robert T. Willets
...Handles Purse Strings

Operations Research Bailey to Study Abroad

Dr. Herbert R. Bailey, chairman of the Division of Mathematics, has been granted a one-year sabbatical leave to serve as a visiting scholar at the University of Southampton in Southampton, England, during the 1973-74 academic year.

Dr. Bailey, who was active in research at the Marathon Research Center and Colorado State University prior to coming to Rose-Hulman as chairman of mathematics in 1966, will do his work in the area of operations research.

Dr. Bailey was graduated from Rose-Hulman with a B. S. in electrical engineering in 1945. He stayed on the following year to earn an additional B. S. in chemical engineering and since has earned M.S. degrees in electrical engineering and mathematics at the University of Illinois and Purdue University respectively. Bailey completed a Ph.D. in mathematics at Purdue in 1955.

Says Herb, who is looking into the three Rs of sabbatical (reading, research and relaxation): "The logistics of the move, including my wife and five children, is an interesting operations research problem in itself."

\$1 Million Lead Gift

'R-H 100' Centennial Development C

Hulman and Zwerner Head 1,000-Member Force Seeking \$5 Million to Cap Off Exciting 10-Year Program

A volunteer force of alumni and friends which ultimately will number 1,000 is taking the "Rose-Hulman 100 Story"--the need for the recently announced \$5 million final phase of the Centennial Development program--to Rose-Hulman Institute of Technology's various constituencies.

Kicked off March 1 with a \$1 million lead gift from Honorary Chairman Anton Hulman, Jr., and Mrs. Hulman, the Centennial Campaign is the most ambitious ever undertaken by the Institute.

The campaign caps an exciting 10-year development program initiated in 1964, and, when completed, will provide the Institute with facilities to match its fine reputation and unexcelled academic program.

Projects to be accomplished through Centennial Campaign funds include the construction of a \$1.2 million Learning Resources Center, a \$2 million recreation complex and \$1.8 million in continued remodeling of academic facilities, up-grading of utilities and

other physical plant improvements.

In announcing the final phase of the Centennial Development Program, Benjamin G. Cox, chairman of the Institute's Board of Managers, said, "This decade of development to close the first century for Rose-Hulman has been accomplished as planned insofar as increasing the academic population to accommodate 1,000 students, together with assuring financial stability in maintaining and operating an educational institution of the unexcelled quality and reputation of Rose-Hulman.

"In order to provide the tools by which continued excellence in the second century may be motivated and guaranteed, substantial capital investment in critically needed major facilities is now of prime concern.

"To provide this capital investment is the basic purpose of our Centennial Campaign--to 'cap off' or 'put the lid on the jar' of our excitingly successful first century and to premiere an equally challenging second century. I am con-

fident that the challenge will be met by our alumni and friends."

Broad based campaigns are under way in Terre Haute and Indianapolis. In addition, the thrust of the campaign is being carried to some fifteen other primary areas such as New York, Chicago, Los Angeles, San Francisco, etc., and some 15 or so satellite areas such as Kokomo, Decatur, Sarasota, Evansville and other medium-size cities where there is a concentration of alumni or other support.

Reports of some of the earlier meetings confirm the anticipated enthusiasm from alumni and friends.

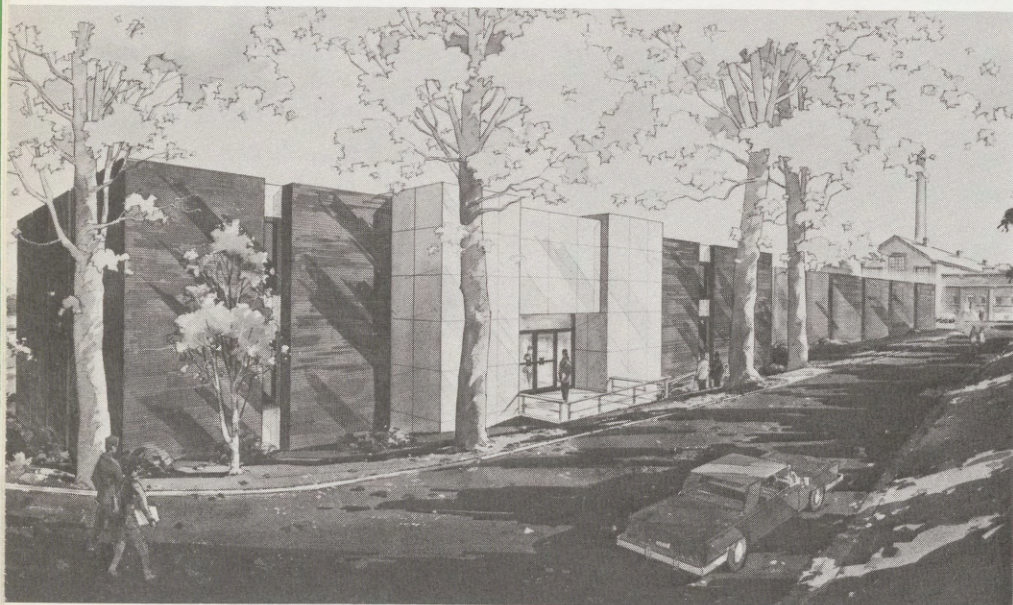
Gene A. Zwerner '34, sales manager for the Link-Belt Division of FMC Corporation, is the general chairman of the Centennial Campaign. The ideal man for the job, Gene has been an officer and president of more RoseTech Clubs than any other alumnus in the history of the school.

Thomas L. Reese '58, president of Universal Tank and Iron, Inc., Indianapolis, is national chairman. (Has his private plane been a blessing in the early stages of the campaign!).

Rose-Hulman Senior Vice President Dr. Herman A. Moench '29 is chairman of the Family Division (the board, faculty, staff and students), while John T. Newlin Feb. '43, president of Newlin-Johnson, Inc. Terre Haute, and Shelton M. Hannig, Terre Haute architect and builder, are chairmen of the Major Gifts and Terre Haute divisions respectively.

Ronald G. Reeves '58, vice president for development and public affairs at Rose-Hulman, is campaign treasurer and coordinator for the campaign (an organizational chart of top leadership follows on the next two pages).

The need of a new library has been a critical one for some time. The existing library was designed for a student population of 400 and has been a source of strong criticism from ac-



A New Learning Resources Center for a New Century.

ent Campaign Kicks Off in 30 U. S. Cities



crediting teams from the North Central Association of Colleges and the Engineers' Council for Professional Development, the final authority on accreditation of engineering colleges.

The new facility will be more than a library. The three-floor structure to be sited west of the Main Building and adjacent to Crapo Hall will include 30,000 additional volumes, an audio visual cen-

ter, language laboratory, seminar rooms and an archives room.

The proposed recreation facility, one designed for the recreational needs of 1,000 men, will be built around Shook Memorial Fieldhouse. The project includes an intramural gymnasium to be sited east of the fieldhouse, and an olympic size swimming pool, four handball courts, and weight and wrestling

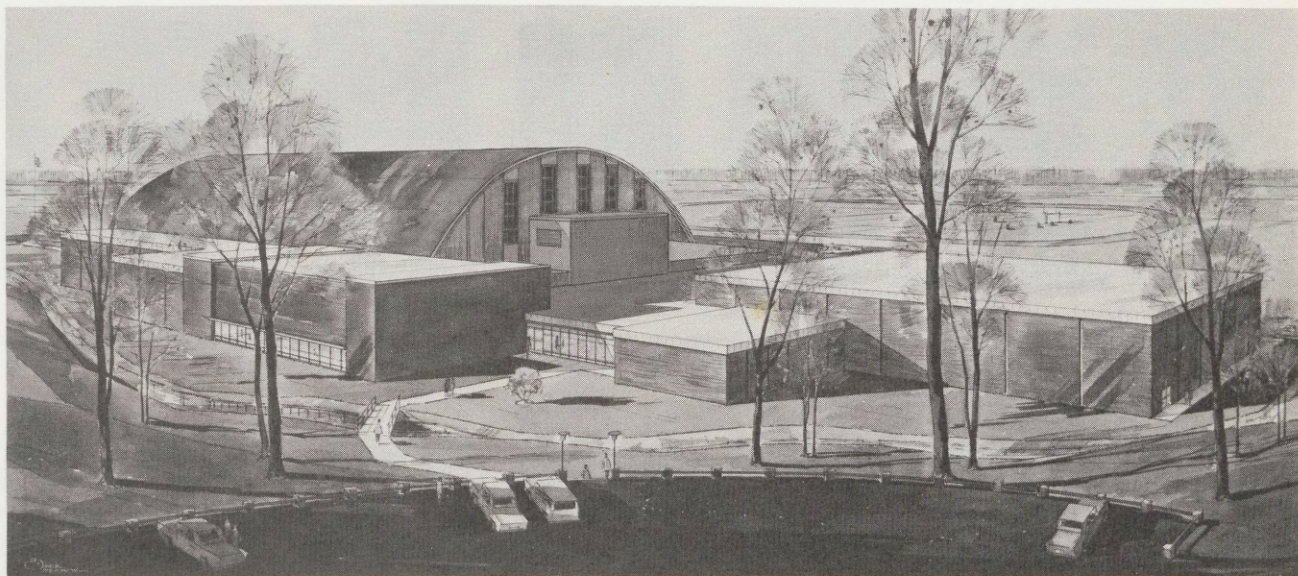
rooms adjoining Shook Fieldhouse to the south. Existing shower and locker areas will be remodeled and expanded for further utilization of the recently improved interior of the fieldhouse.

The intramural program at Rose-Hulman is one of the best in terms of participation. It always has been. But try to imagine scheduling 50 intramural basketball teams in an already crowded Shook Fieldhouse. Now add 30 or so volleyball teams, and 50 football players in weight training three days a week, another 40 staying in shape for track and field (that's right, Rose-Hulman track men don't get in shape--they stay in shape by running distances from 40 yard sprints to up to 10 miles per day!).

But more important, the non-varsity students are jogging more each year and engaging in the so-called "carry over" sports which leaders of business and industry now feel are important to the health of their executives of tomorrow.

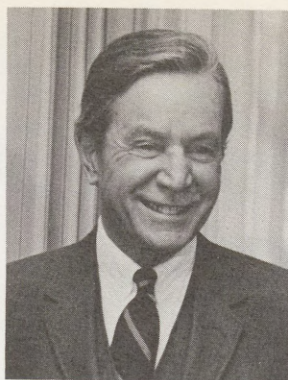
These two major projects and nearly \$2 million in other campus improvements will bring to more than \$10 million the amount of capital im-

(Continued on page 16)



A Recreation Center for Students in Pursuit of Excellence.

Campaign Leaders



Anton Hulman, Jr.
HONORARY CHAIRMAN



Gene A. Zwerner
GENERAL CHAIRMAN



Shelton M. Hannig
TERRE HAUTE DIVISION



Ronald G. Reeves
CAMPAIGN TREASURER



Thomas L. Reese
NATIONAL DIVISION



Sterling H. Pittman
ALUMNI



Tom S. Merritt
COMMERCE



Donald E. Smith
FINANCE



John B. Hunter
FRIENDS

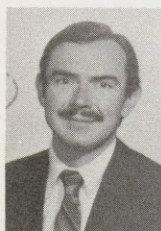


Paul A. Benning
INDUSTRY



George E. Miller
PARENTS

Primary



Clyde F. William
CHICAGO



John C. Pirtle
CINCY-DAYTON



John W. Gregory
CLEVELAND



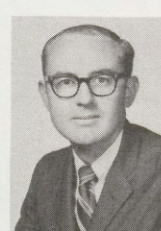
Howard P. Freers
DETROIT



Robert S. Coma
INDIANAPOLIS



R. Tim Kelley
LOS ANGELES

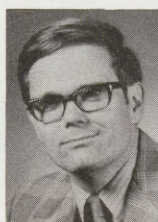


Fred Wright
LOUISVILLE

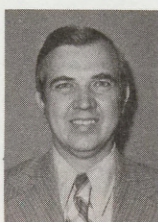
Satellite



Ronald G. Gesell
ATLANTA



William C. Perkins
BLOOMINGTON



Joseph L. Bronnert
COLUMBUS, IND.



William T. Weinhardt
DALLAS



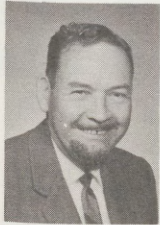
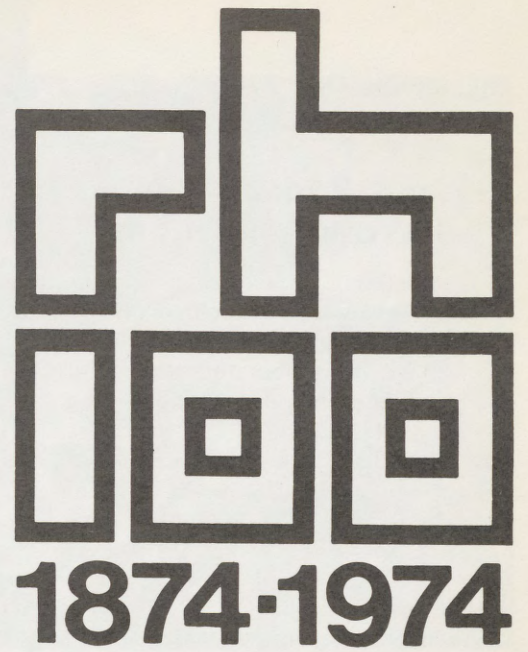
Fred E. Mueller
DANVILLE



Evan H. Johnson
DECATUR



James E. Dunn
DENVER



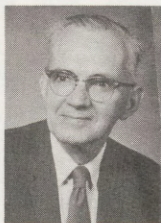
Herman A. Moench
FAMILY DIVISION



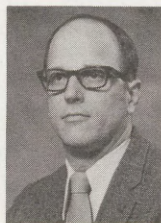
John T. Newlin
MAJOR GIFTS DIVISION



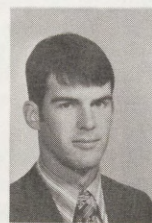
Henry Y. Offutt
BOARD



Irvin P. Hooper
FACULTY



Stephen R. Miller
STAFF



William J. Randall
STUDENTS

Areas



Wendell E. Carroll
NEW YORK



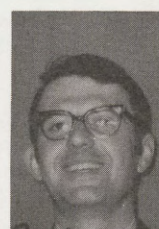
William R. Gray
NORTHERN INDIANA



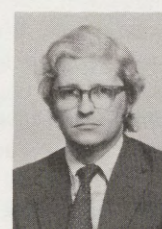
Robert E. Burtner
PHILADELPHIA



G. Lee Berry
PITTSBURGH



Charles J. Schukai
ST. LOUIS

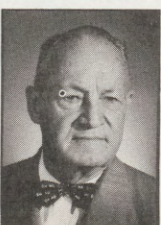


John C. Gaughan
WASHINGTON, D. C.

Areas



James W. Stott
EVANSVILLE



Everett E. Black
HONOLULU



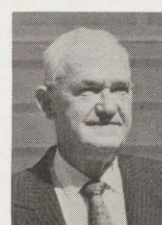
Jack L. Foltz
HOUSTON



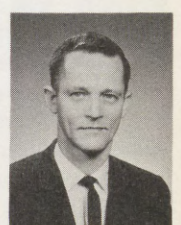
Walter R. McIndoo
KOKOMO



Jerome E. Hahn
PEORIA



John D. Anthony
SARASOTA



Jack K. Matthews
PHOENIX

Student Projects Depict 'Real World' Situations

"Engineering... a Better Environment Through Technology" unfolded on the Rose-Hulman campus as students opened various laboratories of the school to the public during Engineering Day '73 in February.

An estimated 500 visitors participated in Engineering Day activities as varied as listening to the noise pollution show to seeing how one's own heart sounds through the use of an electronic stethoscope.

The need for some 48,000 graduate engineers annually was depicted pictorially through a handsome display of some seventy pictures of "engineers in action" on just about every application or problem imaginable.

With this in mind, the visitors easily focused on the kinds of activities undertaken by the student engineers.

The 15-minute noise show by students in mechanical engineering turned out to be noisy, but informative. It quickly pointed out that many home appliances and other little suspected noisemakers can be just as damaging to the human ear as those which get most of the attention.

A geodesic dome constructed of sticks provided civil engineers a study in structures which may well be incorporated into housing, year round greenhouses and other applications in the future. The civils also had their concrete canoe on display and tested the eight-inch long model in yet another study in structures.

In the electrical engineering area, visitors got a good look at the digital clock and some of its future scientific applications, and were given a demonstration of graphics on the analog computer.

Perhaps the most popular demonstration was the "Rube Goldberg Machine." With its cams, levers, ice cube melting and other related devices involving statics, dynamics and fluids, etc., the "thing" actually did nothing.

Needless to say, aware and eager young engineers still take time out for a little fun.



Engineering in Medicine

The "Rube Goldberg" —→



Dougan 4th All-Time Scorer

Cagers Keep Spirit in Uphill Grind

When a college basketball team finishes a season with a 7-17 record, it is generally believed that the team's attitude and ability to be coached were as bad as its record. Such was not the case with the 1972-73 edition of the Fightin' Engineers.

Coach John Mutchner, after the last game of the season, expressed characteristics of this year's team that oftentimes are not said of a winning team. "These guys never gave up. They always went into the game with a winning attitude and never gave less than 100 per cent. They had to be one of the most coachable teams I have worked with in my ten years at Rose. It is tough for a squad to have determination and good mental attitudes when it is experiencing a losing season...but this team did."

A key factor in the disappointing season was the Engineer schedule. No fewer than three opponents played in postseason tournaments, (Franklin, Marian and Earlham) one team (IU-PUI—one of the Engineers' victims) was victorious in such a playoff, while ten of the twenty teams faced this year ended the season with winning records. The Engineers played the largest school, enrollment wise, in the college's history, when they dropped two contests to Wright State University. Located in Dayton, Ohio, the school has an undergraduate enrollment of 9,000.

This year's squad was made up of three veteran seniors, along with four juniors, two sophomores and four fresh-

men. It was senior center Gary Dougan of Holland along with forwards Joe Snyder of Vincennes and Mike Bennett of Chicago who carried the weight during the season.

Dougan became the fourth leading scorer and fifth leading rebounder in school history. The 6-5, 210-pound pivotman edged out George Shaver ('69) for fourth place on the scoring list when he canned a bucket in the final three minutes of the final game of his career to give him 1,136 points...two more than Shaver.

While the seniors were providing most of the muscle, two sophomores showed continued improvement and much promise for the future. Forward Bill Ransbottom of Springfield, Ohio and another Buckeye Denny Townsend of Hamilton were among the top three in scoring and rebounding for the Engineers.

The season started out on a promising note and ended the same way...with a win. The Engineers captured three of their first five contests and appeared on their way to a winning season. But a key injury to Ransbottom and a four-game losing streak put the Engineers in a tailspin that they never recovered.

As is traditional, this season ended for the seniors with a big puff of a big cigar during the final locker room ritual. As Coach Mutchner emotionally put it during the scene..."It means something special to me when an athlete finishes four years of competition at Rose but it means even more to that athlete."

All wet?

Junior Civils Enter Concrete Canoe Race

At first, it seemed like some sort of a joke. Nobody of sound mind would construct a canoe of concrete. Even if it did float, a concrete canoe certainly would not sell.

But junior civil engineering students don't think like the average man on the street. To them, building a canoe to compete in an intercollegiate concrete canoe race loomed as quite an engineering challenge--not to speak of all the fun(?)!

Sponsored by the Rose-Hulman chapter of the American Society of Civil Engineers, a half dozen or so junior civil engineers began design on the canoe at the start of the second quarter.

Using super lightweight Zonolite as an aggregate, the students poured the canoe shell in a hand-carved Styrofoam form. The structure is reinforced with four layers of chicken wire.

And then the fun began. Fresh out of the form, the canoe weighed a not so portable 300 pounds, thus giving the students the task of hand scraping some 50 pounds of concrete from the canoe shell.

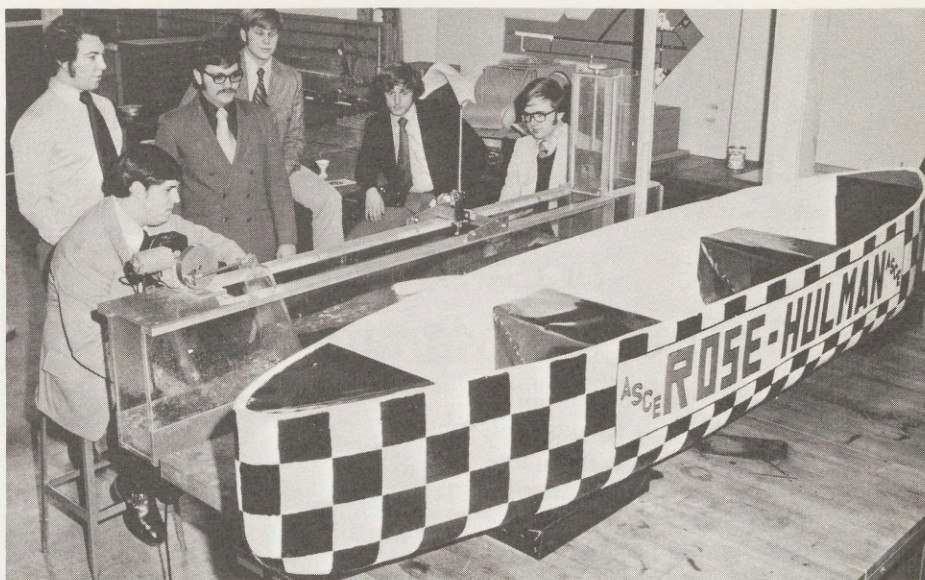
The canoe later was sealed with swimming pool sealer and given the racy appearance of an 11-foot long black and white checkered flag.

Students most active on the project are Jim Kane, Williamsport; Bob Cales, Indianapolis; Mike Neyer, Batesville; Joe Baker, Dayton, Ohio, and Bob Terkosky, Terre Haute.

The team isn't predicting how it will fare in the Purdue University-sponsored race pitting some 20 teams on Eagle Creek Reservoir northwest of Indianapolis in April.

But says Terkosky: "We're sure staying clear of the last place award--the Concrete Life Preserver!"

Needless to say, this coveted award won't float.



Future civil engineers (from left) Dave Becker, Bob Terkosky, Bob Cales, Joe Baker, Jim Kane and Mike Neyer test the floatation qualities of a model concrete canoe in hydraulic flume.

Chess Team Shares Pan-Am Small College Title

Rose-Hulman's chess team brought back top small college honors from the 120-team Pan American Chess Championships staged at Ohio State University over the Christmas break.

The Engineer contingent tied for the small college title with New College of Florida, an innovative "go-at-your-own pace, do your own thing" college for intellectually gifted students.

Rose-Hulman won over the University of Maryland, Slippery Rock, Dickinson and the University of Arkansas to score four match points and 18 of 32 possible game points.

Losses came at the hands (and heads) of Harvard, the University of Chicago, Ohio State, and Indiana University of Pennsylvania of the major division. Rose-Hulman, with an enrollment of 1,100, competed in the division for accredited institutions of 3,000 or fewer students.

The Rose-Hulman team, which is comprised of former high school state champions from Indiana and Ohio and two runners-up from Ohio, has been competing together throughout the midwest for three years.

Members of the team are captain Dennis Paustenbach, Strasburg, Ohio; Dennis Antoline, Pittsburgh, Pa.; Dave

Dibble, Whitesboro, New York; Rob Ellis, Vineland, N. J.; George Cones, Lyons, and Mike Goler of Indianapolis.

Engineer Sharpshooters Gain National Tourney

Rose-Hulman's rifle team has qualified for the National Intercollegiate/Inter-scholastic Postal Indoor Rifle Match in April.

Fifth Army Headquarters, Ft. Sam Houston, Texas, announced the Rose-Hulman ROTC squad was one of the six college teams in the Fifth Army area to qualify for the national meet. Teams were selected on the basis of rifle scored achieved in firing at home ranges earlier this year. Targets were sent to Ft. Riley, Kansas, for grading.

The Engineer team scored 2,340 out of a possible 3,000 in the preliminary firing. The University of Minnesota topped Fifth Army area qualifiers with a 2,745 score.

Members competing in the national meet are junior Ben Underwood, West Terre Haute; sophomores Leonard Clevenger, Avila, Ind.; Tom Heimbarger, Indianapolis; Joseph Lechner, Warrensville, Ohio; Steven Marx, Van Wert, Ohio; and David Wojahn, Gary; and freshmen Mike Avery, Elkhart; Dane Clark and Donald Moore, both of Rockville, and Darrel Ralph, Parma, Ohio.

News From Alumni

Paul Grafe Receives Beavers' 1973 Award for Management

"At a time in life when anyone but a Beaver would be thinking seriously of retirement, **Paul Grafe**, head of Grafe-Callahan Construction Company, rushed headlong into space age construction. However, he still keeps in touch with the past through his breeding of throughbred and quarter horses, as well as Angus and Beefmaster cattle. Paul's restless mind encompasses far-ranging interests!"

With this apropos lead-in statement and an equally eloquent capsule of his career, the Beavers, an exclusive club of the heavy construction industry, conferred the Golden Beaver Award for Management on 1920 civil engineering graduate Paul Grafe during the organization's 18th Annual Awards Dinner in Los Angeles in January.

Born in Clay City, Ind., he received his early education in Clay City and Terre Haute. During World War I, he was stationed in France and Scotland with the engineering department of the Motor Transport Corps. Following service he completed his degree at Rose-Hulman and subsequently was awarded the Doctor of Engineering degree in 1950.

He entered the heavy construction business with W. E. Callahan in 1922, serving as an engineer on the Mississippi River system levee and drainage projects and later was project manager of construction of Madden Dam on the Canal Zone's Rio Chagres River.

Rising through superintendent to vice president in 1932, he became president in 1944 and the business became Grafe-Callahan at that time. In 1950, he became chairman of the board.

Throughout the years, Paul has served his company as executive officer on innumerable large and small projects, many with associates, throughout the western hemisphere and Pacific islands.



Paul Grafe

...Thrives on Big Tasks

By far the largest were two contracts for the U.S. Army Corps of Engineers.

The first, accomplished between 1940 and 1943, was \$93 million worth of defense construction in the Pacific. The other giant effort was the 1942-44 Canol Project in Canada and Alaska. This \$97 million task involved construction of airports, refineries, 2,000 miles of roads and 1,800 miles of pipeline.

After the war, Paul turned his attention to a variety of highway and water projects--including work on such major structures as Granby, Horsetooth and Shasta Dams. Of many tunnel projects carried out under his direction, the largest such project was the \$36 million West Delaware Tunnels complex built for the New York City Board of Water Supply between 1956 and 1960.

An emeritus member of the Rose-Hulman Board of Managers, he was an active regent of Loyola University, Los Angeles, and continues activities as a director of the Estelle Doheny Foundation, the Beavers and the Petroleum Club of Dallas.

Matsuda to Head Business Affairs At U. of Hawaii

Dr. Fujio Matsuda, director of the Department of Transportation for the State of Hawaii since 1963, has been appointed vice president for business affairs at the University of Hawaii.

Dr. Matsuda, a January, 1949, graduate in civil engineering and recipient of the Honor Alumni Award in 1971, will assume his new duties May 15.

As a former professor of engineering, and a veteran of some of Hawaii's most complex executive operations, Dr. Matsuda is uniquely qualified for his new position which entails statewide administration of all nine campuses of the University, its many teaching, research and public service activities.

The vice president for business affairs supervises the University's budget, fiscal operations, personnel, security, and physical planning and development. He also serves as a member of the board of directors of the University of Hawaii Research Corporation.

Following his graduation from Rose-Hulman, Matsuda continued his education at the Massachusetts Institute of Technology where he earned a Doctor of Science degree in 1952. He was a member of the research faculties at MIT and the University of Illinois prior to joining the faculty at the University of Hawaii in 1955.

At the time of his appointment to Gov. John Burns' cabinet in 1962, Dr. Matsuda was head of the University's Engineering Experiment Station as well as chairman of the department of civil engineering.

He and his wife, Amy, have three sons and three daughters and reside at 3654 E. Nuana Pali Drive, Honolulu, Hawaii 96817.



Echoes Alumni Magazine

'22

Eugene S. Whitlock (M.E.) reports "I've finally retired as of Sept. 30, '1972..." Having served as the Chicago representative for Gerbing Manufacturing Corporation of Elgin, Ill., for the last 16 years, most of his career has been in the design, sale and application of mechanical equipment and variable speed drive systems. Companies he was associated with in this field included the New Departure Division of General Motors, the Reeves Pulley Company of Columbus, Ind., and Ideal Commutator Dresser Company of Sycamore, Ill. Prior to entering the mechanical sales field, he was associated with American Bridge Company, Gary, Ind. His address is 926 Dakin St., Chicago, Ill. 60613.

'27

John A. Fairhurst (E.E.) has retired from Wright-Patterson Air Force Base, Dayton, Ohio, after 33 years of government service. At his retirement he was Assistant Branch Chief-Electronic Warfare Division, Passive Equipment Branch, where he played a key role in the development of disperser systems, decoys, radar reflectors and warning receivers for the B-52, B-587F-11 and F-15 aircraft. Since retirement he has moved to Indianapolis. His new address is 6105 Burlington, Indianapolis, Ind. 46220.

'33

Theron Detrick (M.E.) has retired as Flow Operations Manager for Owens Illinois Company and is now making his home in Florida. His new address is 545 Hancock Ct., Sunny Hills, Fla. 32428.

An Hour a Week

Cook Calls on Suburbanites to Help Restore Cities

From the vantage point of his 90 years, **C. Brenton "Brent" Cook**, a 1905 graduate in electrical engineering, calls upon suburbanites to devote one hour each year to devising means of restoring Cleveland's prestige and forward thrust.

Interviewed recently on the subject by *Cleveland Press* Columnist Bob Seltzer, the spry Cook said, "The potential is there, but nobody seems to work on it. If the capitious critics would become promoters, Cleveland would progress. Procrastination is the thief of time. What has Cleveland ever done for industry, its biggest taxpayer? The city now has an imbalance in population."

"Brent" retired at age 70 in 1953 after 38 years with the Elwell Parker Electric Company where he rose from salesman to vice president and a director, advertising and export manager. Prior to

William C. Heidenreich (Ch.E.) sends a happy note that he and his wife, Rosa, are "enjoying our retirement to the fullest in Northern Vermont. We are planning already to be at Rose-Hulman in Oct. '73 for the 40th Homecoming." Calling all '33s! The Heidenreichs reside at Toby Lane Farm, East Corinth, Vt. 05040.

'35

Dr. Norman E. Tucker (Ch.E.), sanitary engineer director for the U.S. Public Health Service at the National Institutes of Health in Bethesda, Md., was honored by being elected President and Executive Director of the Health Education Media Association (HEMA) during the organization's annual conference in Houston, Texas, in January. Immediately following the conference, Dr. Tucker flew to Mexico City where he assumed leadership of the International Section of HEMA. He had served on the Board of Directors and as the Annual Conference Chairman, and has been named to serve as conference chairman for the International Convention in Atlantic City, N. J. March 16-19, 1974.

Louis S. Lyon (Ch. E.), who for a number of years has been director of the Dallas Region of the U.S. Civil Service, reports he is serving as an adjunct professor in the Graduate School of Public Administration of Southern Methodist University in Dallas. His lectures deal with "Manpower Management in Public Jurisdictions." He also has been honored by being listed in the original issue of "Who's Who in Government."

'38

Dr. Lawrence J. Giacoletto (E.E.) has been elected a director of Tenna Corporation, a Cleveland-based producer of automotive sound equipment. Dr. Giacoletto, a member of the electrical engineering faculty and the division of engineering research at Michigan State University, also is a director of Thomas and Skinner, Inc., Indianapolis, and is president of CoRes Institute, Okemos, Mich. His home is at 4465 Wausau Road, Okemos, Mich. 48864.

'40

Milton M. Hosack (Ch. E.) has been appointed manager of operations at American Cyanamid Company's Stamford, Conn., Research Laboratories. In his new position he is responsible for the maintenance and operations of plant facilities, labor relations, plant engineering, graphic arts, plant protection and other services. Formerly manager of plant engineering services, he joined Cyanamid in 1948 as a general engineer at its Bridgeville, Pa., plant. There he held successive engineering posts through assistant maintenance superintendent until his transfer to the Stamford Laboratories in 1953. He became plant superintendent in 1959 and manager of plant engineering services in 1965. Mr. and Mrs. Hosack have three sons and reside at 50 Midrocks Dr., Norwalk, Conn. 06851.



C. Brenton Cook

...Plenty of Push

joining Elwell Parker, he was in sales with Allis-Chalmers Corporation and Stevens-Duryea, pioneer automaker.

Cook lettered in football and track and was staff artist for the *Rose Technic* during his college days. Vital and peppery, alumni will recall his wit and spirit demonstrated on his last visit to the Rose-Hulman campus for his sixty-fifth year reunion in 1970.

He continues to be an avid golfer and walks 18 holes three times a week. Over the years he has played some of the world's great courses. While with Elwell Parker, he had an office in London and supervised 13 offices abroad. With rented clubs, he played golf in France, Belgium, Switzerland the famed St. Andrews in Scotland.

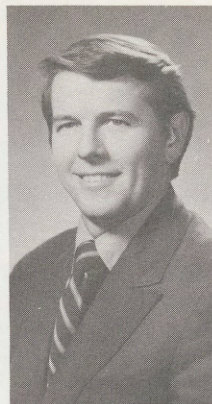
An hour a year for better cities, a few hours for one's Alma Mater, and a few hours a week for the game of golf. "Brent" Cook refuses to allow procrastination to be a thief of his time.

'41

Maj. Gen. John G. Appel (CH. E.) has been reassigned as Director of Logistics, J-4, for the United States European Command at Patch Barracks, Stuttgart, Germany, effective January 15. Gen. Appel's wife, Jane, and youngest son, Bob, are accompanying him in the new assignment. He reports his older son, John Jr., is an engineer captain in the U.S. Army in Korea. Daughter Kay is married to an Army captain and resides in Virginia. Prior to the reassignment, Gen. Appel was in Pentagon where he was Director, Chemical and Nuclear Operations, Assistant Chief of Staff for Force Development, Department of the Army. His new address is Director, J-4, USEUCOM, APO, New York 09128.



Phipps



Simpson

'42

Clifford E. Roberts (E.E.) retired from the U.S. Army as a full colonel on June 30 and since has accepted a position as Telecommunications Manager for FMC Corporation. During his career in the Army, Col. Roberts held numerous assignments in the communications and electronics fields. Among his most recent assignments was that of commander of Electronics J-6, OJCS, Washington, D.C. His address is 9130 Contential Dr., Alexandria, Va. 22309.

David M. Demaree (M.E.) has been elected a director of the Arizona Consulting Engineers Association. Demaree is president of Demaree and Associates, consulting engineers of Phoenix. His address is 5201 N. 7th St., Phoenix, Ariz. 85014.

'49

James G. Simms (M.E. Nov.) recently was appointed a vice president and officer of J. J. B. Hilliard-W. L. Lyons, Inc., a member of the New York Stock Exchange. Having continued his education with an M.B.A. at Indiana University, he was promoted through various engineering positions at Cummins Engine Company prior to entering the investment field in the late 1950's. Headquartered at Columbus, Simms' address is 3325 Woodland Parkway, Columbus, Ind. 47201.

'55

Donald J. Powers (E.E.) has been transferred to Detroit as Account Manager of the Utility Sales Division of Allis-Chalmers Corporation. Prior to the promotion he was assistant manager of the Utility Sales Division and was headquartered in Springfield, Ill. With the exclamation, "Residence later..!!," Don sends his new business address: 19675 West Ten Mile Road, Suite 405, Detroit, Mich. 48075.

**Got a Class Note?
Send It to Echoes**

'57

L. Donald Simpson (Ch.E.) has been named manager of manufacturing for the NORYL Products Section of the Plastics Department of General Electric Company in Selkirk, N.Y. Don joined General Electric in 1967 as a process development specialist with the Lexan Resin Section at Mt. Vernon, Ind. In 1968 he was appointed manager of resin operation for the Lexan business and in 1971 was promoted to manager of the Lexan resin finishing operation. Prior to joining G.E., he held a variety of engineering and supervisory positions with Cities Service Oil Company, East Chicago, Ind.

'58

Ernest W. Boodt (C.E.) has been named Vice President-Engineering for Universal Tank & Iron Works, Inc., Indianapolis. Boodt has been chief Engineer for Universal for the last five years. Prior to joining Universal he was a stress analyst for the Bendix Products Aerospace Division, South Bend. Ernie and his family reside at 6814 Dorchester Ct., Indianapolis, Ind. 46224.

'59

David R. Hendricks (E.E.) is now director of data processing at Wuesthoff Memorial Hospital, Merritt Island, Fla., and is serving as an adjunct instructor at the Florida Institute of Technology in the RETRO program to retrain former aerospace engineers for positions in the field of medical systems engineering. Dave also reports he is participating in a similar program at Brevard Community College to train medical data processing supervisors. His home is at 926 Westwood Dr., Merritt Island, Fla. 32952.

'60

Gary W. Phipps (E.E.) has been appointed head of the Data Systems Operations Department of Bell Laboratories in Holmdel, N.J. In his new position, Gary is responsible for helping to plan telephone company procedures and to implement and maintain

new data systems and to provide computer programs to aid the companies in carrying out these procedures. He joined Bell Labs in 1961 and was initially involved in systems engineering of Bell System data stations and data sets. Later Gary became engaged in studies of data communication needs for computer time-shared services and business information systems. His address is 19 N. Rivers Edge Dr., Little Silver, N. J. 07739.

'62

Francis J. Hirt (Math) has been promoted to Eastern Regional Sales Manager for Kent Plastic Corporation's Decorative Products Division. In his new position he is responsible for sales and sales engineers in 15 states and Southeastern Canada. The Hirts continue to reside at 2218 W. Buena Vista, Evansville, Ind. 47712.

'63

Charles T. Rose (C.E.), a partner in Rose Construction and Engineering, Washington, Ind., has been elected to office in two organizations. He is the 1973 president of the Daviess County YMCA Board of Directors which is actively involved in raising on the order of \$350,000-\$650,000 for an indoor aquatic center for the community, and recently was elected vice president of the Southwest Indiana branch of the American Society of Civil Engineers.

'64

Larry E. Hall (Ch. E.) is currently the Building Products representative for E. I. DuPont in Ohio, New York and Pennsylvania. Having joined DuPont's Jackson Laboratory at Deepwater, N. J., as a development engineer in 1964, his service with the corporation has been continuous with the exception for military leave. Following his military tour, he was assigned to the Permasep Products group until May 1970 when he was transferred to the Building Products Division. His current address is 26917 Adele Ln., Olmsted Township, Ohio. 44138.

'65

James W. Francis (Ch.E.), who last May completed an M.S. in mining engineering from the University of Missouri at Rolla, recently was assigned to the Mid-Western Division of the Consolidated Coal Company, a division of Continental Oil Corporation. He is now located at DuQuoin, Ill., where he is project engineer for a new mine scheduled for production in early 1975. His current address is 3 Mobile Home Dr., DuQuoin, Ill. 62832.

**Homecoming '73
Oct. 26-27**

Echoes Alumni Magazine

'66

James C. Skeel (M.E.) has been promoted to department engineer for J.I. Case Company's Terre Haute Plant. In his new position Jim is responsible to the lead the development of new products in the articulated four-wheel drive vehicle line. He joined J. I. Case in 1967 after one year with the Packard Electric Division of General Motors Corporation. Jim was licensed as a professional engineer in the State of Indiana in 1972 and presently is serving on the industrial committee of the Centennial Development Campaign and is one of the directors for the ASME region. His home is R.R. 25, Terre Haute Ind., 47802.

James R. Bohler (M. E.) recently joined the Commercial Filters Division of the Carborundum Company, Lebanon, Ind., as a sales engineer. Prior to the move Jim had been a sales engineer for the Packard Electric Division of General Motors Corporation in Warren, Ohio, where he worked with the Chevrolet Truck Division. Says Jim: "Friends (especially in the Indianapolis area) are invited to contact me at: 860 Sunset Drive, Danville, Ind. 46122."

R. Jeff Keeler (E.E.) reports that he is working toward a Ph.D. in communications theory at the University of Colorado. Jeff also has taken a part time job with NOAA (National Oceanographic and Atmospheric Administration) in his proposed field of research, signal processing for acoustic radar echoes. Prior to entering graduate school Jeff was a member of the technical staff of Bell Telephone Laboratories. His current address is 1055 Edinboro Dr., Boulder, Colo. 80303.

John R. Norris (Physics) reports he is now employed as a teacher of physics and mathematics at a Hamburg, Germany, "Gymnasium," (a high school restricted to those students who plan to go on to college). He reports his new address is 2 Hamburg 20, Enzianstr 26, Federal Republic of Germany. Prior to going abroad, John was a graduate student in physics at Ohio University, Athens, Ohio.

'67

Jerome P. Stineman (M.E.), who received his J.D. degree from the University of Cincinnati Law School in June, is now Deputy District Attorney for Boulder County, Colorado. He was admitted to the Colorado bar in October and soon after accepted the position in the district attorneys office. Prior to entering law school Stineman was an engineer for Western Electric Company in Indianapolis. Stineman, his wife "Frankie" and son Brett reside at 499 Harvard Lane, Boulder, Colo. 80303.

'68

Larry M. Rose (Ch.E.) and wife, Lois, announce the birth of a son, Brandon Christopher. "What a grandson," exclaim proud grandfathers, Harmon E. Rose (C.E. '43) and Paul A. Benning (Ch. E. '47). Uncle Robert W. Rose (C.E. '65) also is an alumnus. Larry continues as an economics planning engineer for Mobile Oil Corporation in Torrance, Calif. The Roses address is 21736 Paul Ave., Torrance, Calif. 90503.

Stephen P. Mueller (M.E.) has left Universal Oil Products Company for a position as a sales representative for the Ellman Equipment Company. Steve, who will be in charge of the Northern Ohio sales office, also proudly reports: "My wife Jean, and I are the proud parents of a baby girl born on Nov. 24. Her name is Melissa Beth." No permanent address was available at press time.

'69

Peter R. Fowler (E. E.) has joined Texas Instruments, Inc., as a sales engineer for the semi-conductor division. Pete also reports he recently completed the course work for an MBA at the University of Dayton, and following a comprehensive examination should graduate this Spring. Prior to joining Texas Instruments, he was a semi-conductor components engineer for NCR in Dayton. The Fowlers reside at 522 Shroyer Rd., Dayton, Ohio. 45419.

William E. Walters (M.E.) has been promoted from performance engineer to performance engineer senior for the American Electric Power System. He joined American Electrical Power upon graduation in the performance engineering section. His current address is 25th Ave., Farmersburg, Ind. 47850.

'70

Byron L. Wiscons (E.E.) reports that he has accepted a new job with the Aeronics Division of Collins Radio Company in Cedar Rapids, Iowa. He formerly was an engineer for the Delco Division of General Motors Corporation, Kokomo. Byron's new address is 1221 English Blvd., Marion, Iowa.

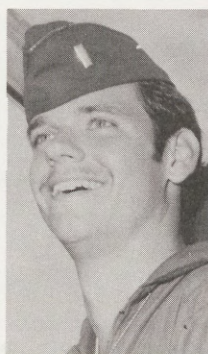
2nd Lt. Rodney A. Smith (Math-Econ) has been awarded his silver wings upon graduation from U.S. Air Force pilot training at Laredo Air Force Base, Texas, and has been assigned to Pope Air Force Base, North Carolina. There he is serving with a unit of the Tactical Air Command which provides combat units for air support of U.S. ground forces. Rod and his wife, Sherri, stopped by the campus en route to training in Arkansas recently to show off their one-year old son, Eric. Mail may be directed to the Smiths at the 317th TAW, 41st TAS, Pope AFB, N. C. 28308.

Donald J. Carroll (M.E.), a service engineer for Westinghouse Power Generation Service, pens a note capsuling a busy 1972. Says Don: "During January, I was in Hamburg, Germany, working on a W251 gas turbine. In March thru August, I was in Cucuta and Bucramanga, Columbia, S.A. installing W;191 turbines.....I really enjoy this international work although I don't know any languages other than English, but we seem to get around it somehow." You may recall that Don spent some four months in New Delhi, India, in 1971. His current base of operation is 6440 Wake Forest, Houston, Tex. 77005.

Stephen R. Whitesell (Physics) is a member of the transducer development staff of the Bell Telephone Laboratories in Indianapolis. Steve reports that he and his wife, Donna, spent three weeks in Europe last fall, driving through France, Germany, Switzerland, Austria, Belgium and England. Steve joined Bell Labs upon graduation and spent one year at the University of Illinois obtaining an M.S. in physics on Bell's Graduate Support Program. The Whitesells reside at 5735 Oakland Terrace, Indianapolis, Ind. 46220.

John R. Fish (Math & Physics) is serving as an operations analyst in the Operations Evaluation Group at the Center for Naval Analyses in Washington, D. C. John, who entered the U.S. Navy upon completion of an M.S. in operations research from Stanford University in 1971, will complete his active duty in July. He plans to return to his job at Bell Laboratories in Holmdel, N. J. at that time. John's current address is 1700 N. 17th St., Arlington, Va. 22209.

Marvin L. Raymond (Chem) recently completed work for an M.S. in chemistry at Colorado State University and has accepted a job as a chemist in the Central Research Department of Ralston Purina Company, St. Louis. The position is in a special analysis group called "Research 900" which handles analytical work on a contractual basis with other institutions. Marv is engaged primarily in the area of protein chemistry. His new address is 4026 Paule, St. Louis, Mo. 63125.



Smith



Williams

Richard C. Burrow (C.E.) reports his engagement to Miss Juliana Wempen of Moweaqua, Ill. Says Richard: "We met while both attending the University of Illinois to obtain our Masters degrees in German and C.E. Structures." A spring wedding is planned. Richard is a design engineer for Alexander and Von Bradsy, consulting engineers of Fair Lawn, N. J.

'71

2nd Lt. Richard E. Williams (M. E.) recently was awarded his silver wings at Laughlin Air Force Base, Texas, upon graduation from U. S. Air Force pilot training. Commissioned in 1971 upon graduation from the School of Military Sciences for Officers at Lackland AFB, Texas, he currently is assigned to Luke AFB, Arizona, for flying duty with a unit of the Tactical Air Command. Mail may be directed to Rich at 324 Boston Road, North Billerica, Mass. 01862.

'72

Michael W. Mueller (Bio) has begun a tour of duty with the U. S. Army and currently is in basic training at Fort Sam Houston, Texas. Following this nine-week course, he will be assigned to the Edgewood (Md.) Arsenal where he will work with the Army medical service corps. Mail may be directed to Mike at his parents' address: 40 Kurtz Ave., Dayton, Ohio 45405.

Philip Wyssling (M. E.) is completing work on an MBA at Indiana State University and also doing voluntary work with the Rose-Hulman ROTC. Among his current projects is attempting to bring a major collegiate military exhibition and competition event to Terre Haute during Rose-Hulman's Centennial celebration. Mail may be directed to Phil at 916 N. 15th St., Apt. 6, Terre Haute, Ind. 47807.

Beldon J. Beasley (C.E.), currently serving in the mission field in Mexico, pens a note "hoping that everything is going fine this year at 'Dear Old Rose'." Says Beldon: "I am working among the people here in Mexico and am greatly enjoying it. My work consists in teaching the basic doctrines of the Gospel of Jesus Christ to all those who want to listen." Beldon will complete his work in June, 1974. Meanwhile, mail may be directed to him at Apdo 862, Monterrey, N. L. Mexico.

Daniel L. Dvorak (E.E.) has resumed employment with Bell Laboratories in Naperville, Ill., following completion of active duty with the Illinois Air National Guard. Dan, of course, graduated from the Air Training Command's basic course for electronic specialists at Keesler Air Force Base, Biloxi, Miss., and remained at Keesler for advanced training. His current address is 5524C East Lake Drive, Lisle, Ill. 60532.

Richard S. Sweetser (M.E.) has completed training in sales engineering for the York Air Conditioning Division of Borg-Warner, Inc., and is now working in the New York City

In Memoriam

'03

John P. A. Williams (M.E.) died Feb. 10 in Atlanta, Ga. Prior to his retirement some years ago, he was a chemist for DuPont and the U.S. Chemical Warfare Service.

'15

Homer A. Howe (M.E.) who continued his education (B.S. Norwich '11) with the professional degree and masters degree in mechanical engineering at Rose in 1913 and 1915 respectively, died March 21 in Terre Haute.

'18

Robert P. Long (C.E.) died Dec. 17 in St. Helena, Calif. Prior to his retirement he was deputy director of the Logistics Planning Division, Bureau of Yards and Docks for the U.S. Navy. Continuing his education in law following his graduation from Rose, he was graduated with an LL.B. from LaSalle in 1940.

'24

Maurice R. Loser (Ch.E.) died Aug. 14, 1972 in Gary. Prior to his retirement he was a chemist for Youngstown Sheet and Tube Company.

'25

Robert H. Andrew (Ch.E.) died March 19 in Ormond Beach, Fla., where he had made his home for some 10 years. He formerly was Midwestern Advertising Manager for The Yorke Publishing Company and was headquartered in Chicago. Following his move to Florida he remained active in advertising in the medical field.

Donald E. Henderson (E.E.) died Feb. 18 at Long Beach, Calif. He retired as District Traffic Superintendent of Illinois Bell Telephone Company at age 60 and had lived in California since that time.

'32

Bertram M. Menden (C.E.) died Jan. 3 in Bronxville, N. Y. He was branch manager for Acme Air Conditioning and Refrigeration, Inc., in Bronxville.

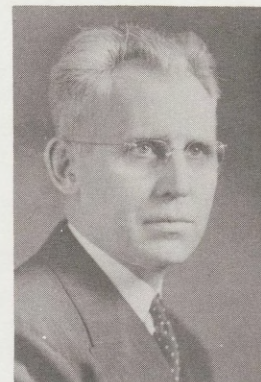
'33

Charles B. Sipple (Ch.E.) died Jan. 15. at the time of his death he was operating Superintendent for Mobile Oil Company.

Sales Office. Married to the former Michele Woods of Princeton, Ind., in July, the couple resides at 864 Sherman Avenue, Thornwood, N. J. 10594.

'43

James M. Richardson (E.E., Oct.) a consulting engineer in Louisville, died June 5 in Louisville.



Dr. Edwards

Dr. P. D. Edwards, visiting professor of mathematics at Rose-Hulman from 1963 to 1967, died Feb. 2 at his residence in Muncie.

He joined the Rose-Hulman faculty following his retirement as head of the mathematics department at Ball State University where he taught from 1926 through 1962.

Dr. Edwards also taught as a visiting professor at the Air Force Institute of Technology, Wright-Patterson Air Force Base, Dayton, Ohio, for one year, and held teaching positions at Harvard University, the University of Chicago and Indiana University while earning the M.S. and Ph.D. degrees in mathematics.

Centennial Campaign

(Continued from page 7)

provements to the Rose-Hulman campus since 1964.

Earlier projects of the 10-year program have included \$1.5 million in upgrading the Main Building; construction of the \$1.2 million Hulman Memorial Union; Mees, Sharpenberg and Blumberg Halls; Crapo Hall classroom building; a laboratory building for mechanical and civil engineering and numerous other projects.

When one thinks of the difference the earlier phases of the Centennial Program have made on Rose-Hulman, it is quite easy to put the "final push" into proper perspective.

Let's get on with completing the job and start celebrating our Centennial.

Echoes Alumni Magazine

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