



18 Nov 1966

The Missouri Miner, November 18, 1966

Follow this and additional works at: https://scholarsmine.mst.edu/missouri_miner

These newspapers reflect the attitudes, perspectives, and beliefs of different times. Neither the library nor the university endorses the views expressed in these collections, some of which contain images and language which may be offensive to some readers.

Recommended Citation

"The Missouri Miner, November 18, 1966" (1966). *The Missouri Miner Newspaper*. 1846.
https://scholarsmine.mst.edu/missouri_miner/1846

This Newspaper is brought to you for free and open access by Scholars' Mine. It has been accepted for inclusion in The Missouri Miner Newspaper by an authorized administrator of Scholars' Mine. This work is protected by U. S. Copyright Law. Unauthorized use including reproduction for redistribution requires the permission of the copyright holder. For more information, please contact scholarsmine@mst.edu.

All students who have temporary student ID cards must take them to the Cashier's Office in Parker Hall immediately to have them re-validated.

ROTC Department Announces Awards Program

Colonel David L. Gundling, Professor of Military Science at UMR has announced that UMR is one of the 247 colleges or universities which will offer students the opportunity to participate in the U.S. Army Reserve Officers Training Corps (ROTC) Scholarship Program.

"The number of scholarships awarded to both prospective and college students throughout the country this year should exceed 1000," Colonel Gundling stated.

ROTC Scholarships are available for all college students who enroll in the four year ROTC program along with their academic curriculum. This is the third year the Army has offered scholarships to stimulate interest in the ROTC program and encourage young men to consider a career as an Army Officer.

Selection for scholarship is based on merit and academic achievement of the individual student, who should also be highly

motivated in considering a career in the Army. Of the scholarship winners last year, 95% were in the top 20% of their high school graduating class; 10% ranked number one in class standing and 9% ranked number two. Further, 18% of the recipients were presidents of their senior class; 74%

young men that the Army seeks for its future leaders.

Scholarship information may be obtained at UMR-ROTC Detachment. These figures indicate that the scholarship program appeals very favorably to the well rounded

ment or by writing to ROTC Scholarship, Fifth US Army, 1660 East Hyde Park Boulevard, Chicago, Illinois 60615, for application forms. Application forms must be submitted between December 1, 1966 to January 15, 1967.



Chancellor Baker with the UMR ROTC Scholarship winners for 1966-67.

UMR Debate Team Places Third In Annual Novice Debate

The UMR Debate Team returned victorious last Saturday from competition in the 12th annual Novice Debate Tournament at the University of Missouri at Columbia. The Junior Miner Debaters posted an overall record of six wins and two losses, which tied them for third place in the tournament.

The team of Bob Wolfsberger and Bob Jordan, who debated the negative for UMR, recorded an outstanding total of four victories and no defeats. Wolfsberger and Jordan defeated teams from Southeast Missouri State, University of Kansas (the first place team), Southern Illinois Uni-

versity, and the University of Missouri at Kansas City.

Clem Drag and Ted Warren debated the affirmative side of the resolution and recorded a total of two victories and two defeats. They defeated the teams from Southwest Baptist College and Westminster College.

The Debaters were accompanied on their journey to Columbia by Professor Charles E. Bess, UMR Debate Coach, Dave Cantwell, Debate Club President, and Steve Gardner.

The first place trophy at the tournament went to the University of Kansas. Second place went to Central Missouri State College,

and the third place resulted in a tie between St. Louis University and The University of Missouri at Rolla.

The resolution in use throughout the debates was the national topic, Resolved: That the United States should substantially reduce its foreign policy commitments. The Debate team is sponsored jointly by the school and by the UMR Student Council.

This tournament marked the beginning of the intercollegiate season for the UMR Debaters. On December 2 and 3 the Miners will attend tournaments at Kirksville, Missouri and Greenville, Illinois.

ACM Announces Special Events For November

The month of November is proving to be a busy one for the UMR Chapter of the Association for Computing Machinery. On Thursday of the first week in November, the ACM held a special class to demonstrate how to program the Computer Center's new keypunch machines. This programming enables the keypunch operator to transfer much of his routine work to the machine.

On Tuesday of the second week, the ACM was privileged to present Mr. Lloyd R. Jessen of Phillips Petroleum Company. Mr. Jessen discussed the fundamentals and benefits of PERT, an acronym for Program Evaluation Review Technique.

Scheduled for the final week of November is a special ACM seminar featuring Mr. Robert V. Head of Computer Sciences Corporation. Mr. Head plans to discuss Management Information Systems. The seminar will be on Wednesday, November 30, at 3:30 p.m. in Room 206 Norwood Hall. All interested students and faculty of UMR are invited to attend.

One HOUR
"MARTINIZING"
CERTIFIED
THE MOST IN DRY CLEANING

As advertised in Life, Holiday, Glamour, Business Weekly, Esquire Magazines, and ABC Television and Radio.

ONE HOUR DRY CLEANING DAILY FROM 8 A.M. - 3 P.M.
INCLUDING SATURDAY

LAUNDRY SERVICE — EXPERT ALTERATIONS

121 West 8th St.

Telephone 364-6063

MIDGET MART

Convenience Store

U. S. 63 & Vichy Road

SHELL STATION & WATER TANKS

GROCERIES • 5% BEER • COLD CUTS

DRUGS • SODAS • SUNDRIES

OPEN 7 A.M. - 11 P.M.
7 Days a Week

PHONE 364-4783

New Official UMR Class Rings

BY L. G. BALFOUR CO.

BULOVA ACCUTRON

DIAMONDS and ENGRAVING
WATCH REPAIRING

Christopher Jewelers

805 Pine Street

4,500 MINERS

Can't Be Wrong

THEY SAY WE HAVE THE BEST FOOD IN ROLLA!

* * * * *

STUDENT SPECIALS EVERY SUNDAY

1/2 Pan Fried Chicken \$1.35
with French Fries and Cole Slaw

Spaghetti With Meat Sauce \$1.10

EL CHAREVE HICKORY HOUSE

Hiway 63 South

364-9900

UPTOWN THEATRE

MOVIES IN CINEMASCOPE

Thurs., Fri., Sat. Nov. 17-19

'The Great Spy Mission'
Sophia Loren & George Peppard

Sun., Mon., Tues., Wed.
Nov. 20-23

Sunday Continuous from 1 p.m.

'Way Way Out'

Jerry Lewis & Connie Stevens

COMING THANKSGIVING DAY

'The Professionals'

Matinee at 2:45 p.m.

RITZ THEATRE

MOVIES IN WIDE SCREEN

Fri., Sat. Nov. 18-19

Saturday Continuous from 1 p.m.

'The Flight of the Phoenix'

James Stewart &
Richard Attenborough

Sun., Mon., Tues., Wed.
Nov. 20-23

Sunday Continuous from 1 p.m.

Admission:
Adults 75c — Children 35c

'Ambush Bay'

Hugh O'Brian & Mickey Rooney

COMING THANKSGIVING DAY

WALT DISNEY'S

'Bambi'

—PLUS—

'The Night of the Grizzly'

Matinee at 2:00

Scholarships, Awards, Given To Honored University Students

Several scholarships have been given to various students here at UMR for the coming academic year. There were three freshmen receiving two different grants.

The Jesse H. Steinmesch Memorial Scholarships are made available by the Minerva Oil Company in Eldorado, Ill. This scholarship is given to honor Mr. Steinmesch who was vice-president and general manager of the company from 1937 until his death in 1952. Mr. Steinmesch was a graduate of UMR class of 1906, and for a time, was a member of the mining engineering faculty.

Recipients are: Raphael C. Colombo, and James R. Morris.

The H. T. Mann Scholarship

has been awarded to George Lee of Rolla. This scholarship is made available by Besse C. Mann, widow of the late H. T. Mann, alumnus and former faculty member of UMR. Selection of the recipient is made from the graduates of Rolla High School as recommended by the Rolla High School faculty on the basis of leadership, scholastic achievement and attainment and financial need.

The La Verne Noyes Scholarship was awarded to Clark D. Brinker. Brinker, the son of Mr. and Mrs. L. Delton Brinker, New London, Missouri, is a sophomore in electrical engineering, and a member of the Shamrock Club.

There were four scholarships

awarded to juniors. The first was the International Nickel Co. Scholarship given to Marion Rackley of Bowdon, Oregon.

The Universal Oil Products Company Scholarship was awarded to Dennis R. Parker, East St. Louis, Ill. Universal Oil Company makes this scholarship available to assist an outstanding student in chemical engineering.

Charles Fehlig, Jr., St. Louis, has been named recipient of a special National Merit Scholarship. This scholarship is awarded by the National Merit Scholarship Corp., Evanston, Ill.

The Don B. McCloud Scholarship was awarded to Michael Korb, Perry, Ohio. Mrs. Don B. McCloud of DuQuoin, Ill., makes this scholarship available as a memorial to her husband, the former president of Air Mite-Midwest, Inc., specialists in high explosives. This grant is made to students in mining and petroleum engineering with a genuine interest in the fields of explosives and blasting in their applications to mining problems.

NOTICE!

This Saturday, November 19th at 2:00 p. m., be sure to hear the broadcast of the final UMR football game from Peoria, Illinois against Bradley University, exclusively on KMSM-FM, 88.5 m. c. on your FM dial.

The Thomas Jefferson Coeducational Residence Hall Presents Accommodations for Living and Study

Well Lighted, Comfortable Rooms

Study Lounge on Each Floor

TV Lounge on Each Floor

Delicious, Plentiful Food

A Large, Well Accommodated
Main Lounge

Snack Bar for Late Evening Snacks

Recreation and Exercise Areas

Well Rounded Social Program

Applications for Residence During Second
Semester Are Now Being Accepted.

Rate for the Second Semester — \$525.00

Eating Contracts Are Also Available
at This Time.

Dr. Thompson to Attend So. Carolina Homecoming

Dr. Dudley Thompson, dean of faculties at UMR will be one of the distinguished South Carolinians who will be honored at the State of South Carolina's homecoming for native sons who are non-residents. This is the first time a state has held such an event.

Over 200 leaders in education, the church, military, business, finance, the arts, science and government fields have been invited to participate in the four days of parties, sports, and relaxation Nov. 18 through 22 at Hilton Head Island, S.C. Honorary committee chairman for the event is Governor James F. Byrnes, former member of the State Assembly, Governor of South Carolina, United States Senator, Secretary of State, U.S. Justice of the Supreme Court, and "Assistant President."

Among the honored guests will be: William C. Westmoreland, commander, U. S. Military Assistance Command, Viet Nam; Stephen Shelton, president and metallurgist, Oregon Metal Corp.; James R. Killian, chairman of the Massachusetts Institute of Technology Corporation.

Harry S. Ashmore, Pulitzer prize winner and former editor-in-chief of Encyclopedia Britannica; Frank Blair, NBC newsman on the "Today" show, and David

Finley, first director, National Gallery of Art, Washington, D. C.

Dr. Thompson, who has been on the UMR faculty since 1956 in the positions of chairman of the department of chemical engineering, director of the School of Engineering, director of the Industrial Research Center and dean of faculties, was born in Florence, S. C. He completed elementary and high school in Clifton Forge, Va. and holds B.S., M. S. and Ph. D. degrees in chemical engineering from the Virginia Polytechnic Institute.

A registered professional engineer in Virginia and Missouri, Dr. Thompson is a member of the American Institute of Chemical Engineers; American Association for the Advancement of Science; American Chemical Society; Acoustical Society of America; American Institute of Mining, Metallurgical and Petroleum Engineers; American Society for Engineering Education.

American Institute of Physics; Institute of Electrical and Electronic Engineers; American Association of University Professors; Engineers' Club of St. Louis; Society of American Military Engineers; National Society of Professional Engineers; Missouri Society of Professional Engineers and the Newcomen Society.

TIGER TOWN AT CENTRAL PONTIAC

Le Mans and G. T. O.

TREMENDOUS DISCOUNTS!!

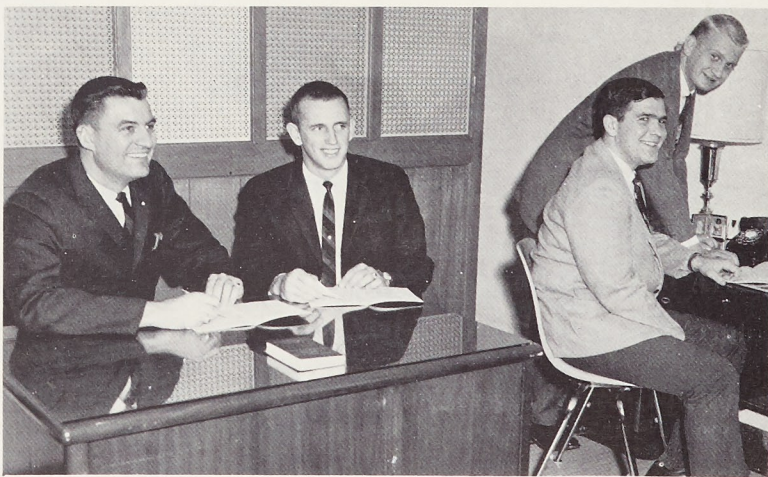
- Small or No Down Payment
- Deferred Payments as low as \$25 monthly until on the job
- 5% Interest
- Service After the Sale

If Central Pontiac Doesn't Have a Tiger

for You . . .

TRY THE ZOO!!

Presenting . . . FRONTIER TOWER LIFE INSURANCE COMPANY'S "Keystone College Plan"



NOW ESTABLISHED with an office and sales force in Rolla (101 Carney Manor), Frontier Tower Life Insurance Company, Jefferson City, Mo., is presenting its "college plan" of life insurance to students here. Pictured in their office here, the Rolla staff: from left, Bob Morrow, district manager; Ron Lewis, student representative (364-5029); Wes Myers (seated), student representative (364-1490); and Al Ponnwitz, student representative (364-5766).

Let one of These Leading, Active, Student
Representatives Show the "College Plan" to You!

ROLLA OFFICE: 101 Carney Manor

Phone 364-6573

FRONTIER TOWER LIFE INSURANCE CO.

HOME OFFICE, JEFFERSON CITY, MO.



Miner Editorials, Letters, and Features



Studies Pose Questions As to Importance of GPA

(ACP) — College students around the nation are constantly worrying about their grade point averages, yet the significance of the GPA seems to be questioned more all the time, says the *Western Herald*, Western Michigan University, Kalamazoo, Michigan. The most recent questions were raised by two studies that show no direct relationship between the college grade point average and professional success.

The two studies were conducted among fellowship winners among Columbia University graduates and among a group of physicians. The first showed that students who had graduated with honors, won scholastic medals or were elected to Phi Beta Kappa were more likely to be found in the "lower professional levels" than students who had not distinguished themselves in such ways. The second showed no such tendency but merely found there was no connection between grade point averages in medical school and the physician's later success.

Too often, however, decisions as to whether to hire a college graduate are based at least partly on a grade point average. It is difficult to blame employers for this, however, when educational institutions continue to place as much emphasis on grades as they do, with determination of awards and scholarships, part-time jobs and organization officerships dependent on them.

The grade point is the child of the University. It was born there, nurtured there and is now at work there. It must, therefore, be the University that will take the initiative in recognizing the grade point for what it is and the boundaries in which it can legitimately be applied.

Should Instructors Look For Methods or Answers?

Dear Sir:

What is the purpose of a test? It is to see how much the student knows, how well he has grasped the material, and how well he applies the methods to the problems. With this in mind I would like to take a look at how some professors grade tests, especially in a problem course. To grade problems on a test as either all right or all wrong just doesn't make sense. If a student has grasped the methods of solving the problem, why should he be given no credit at all just because of a simple math mistake. I've seen professors make these same mistakes while working problems on the blackboard. Students are only human and under the pressure of a quiz can easily make an addition mistake even though they fully understand the method to be used.

Professors tell students not to work for the answer but then turn right around and grade entirely on the answer. They have defeated their own purpose in grading that way. If a student works every assigned problem and gets the right answer but doesn't know what he has done, he has actually accomplished nothing. I have come to Rolla to learn the methods of solving engineering problems and therefore I think that my tests should be graded accordingly.

Clem Drag

LITTLE MAN ON CAMPUS



Ceramic Teacher Has Made Study Of Beer Bottles

Ceramics are inorganic, non-metallic materials that require high temperature in their manufacture. Ceramic engineering then, is concerned with the design and application of these materials.

Frances Oesterling's interest in ceramic engineering grew from a lecture that she attended on ceramic materials. Deciding that her chosen field of mechanical engineering was not for her, she switched to ceramic engineering, earning her bachelor's and master's degrees at the Berkeley campus of the University of California.

A native Californian, Mrs. Oesterling has worked for American Glass Research, Inc. in Butler, Pennsylvania. The glass container industry sponsored her research project, the primary goal of which was to make a stronger beer bottle more cheaply.

Mrs. Oesterling is now a full time instructor, teaching ceramic raw materials, and the behavior of glassy and crystalline materials. Also a part time student, she would like to continue teaching after receiving her Ph.D. degree in 1969.

FREE PHOTO SERVICE

The ROLLAMO has organized a photographers' pool to cover any special events that occur during the year. Any organization may arrange to have a photographer available to cover any special meetings or other events by calling any of the numbers below at least one week prior to the date of the event to be covered. The ROLLAMO will be happy to cover service projects, theme parties, awards banquets, etc.

Randy Burns	364-9953
Frank Minden	364-9953
Dennis Fesler	364-1490
Clem Drag	364-2731

THE MISSOURI MINER

THE MISSOURI MINER is the official publication of the students of the University of Missouri at Rolla. It is published at Rolla, Mo., every Friday during the school year. Entered as second class matter February 8, 1945, at the Post Office at Rolla, Mo., under the Act of March 3, 1879.

The subscription is \$1.25 per semester. This Missouri Miner features activities of the Students and Faculty of U. M. R.

Editor-in-Chief	Don Flugrad
Business Manager	Charles Hansen
Managing Editor	Darrell Pepper
Make Up Editor	Frank Fix
Copy Editor	Bob Mildenstein
Secretary	Charles Painter
Features Editor	Jerry Vaughn
Advertising Manager	Tom Sauer
Circulation Manager	Jerry Adams
Ass't Managing Editor	Steve Tacke
Ass't Make up Editor	Bob Fick
Sports Editor	Jim Weinle
Proofreader	Gary Burks

Our Man Hoppe

Howdy there, folks. How y'all? Time for another tee-vee visit with the rootin'-tootin' Jay Family, starring ol' Elbie Jay — an energetic feller ready to travel half way 'round the world to make friends. If'n he can't make any at home.

As we join up today with ol' Elbie, he and his pretty wife, Birdie Bird, are sitting amid a heap of souvenirs. That's their cute tad, Myna Bird, asking 'em questions. She's on her lunch hour.

Elbie (with a happy sigh): I guess that was just about the most interesting, rewarding, enriching trip anybody ever took. My, we sure did learn a heap and get a heap done.

Myna Bird: I want to hear all about it, Daddy, minute by minute. In about (glancing at her watch) 37 minutes.

Elbie: Well, now, we started out in . . . Where'd we start out home? Birdie Bird: Honolulu, dear.

Elbie: That's right. Then we went down to . . . Well, I know we went to Australia, 'cause that's where your ma had a passle of fun digging up old pots and things.

Birdie Bird: No, dear, that was in the Philippines. Australia's where they threw paint on our car.

Elbie: You sure? Well, anyway, Malaysia was mighty nice, except it rained a lot so we couldn't do much but sit around the lobby writing postcards and . . .

Birdie Bird: Excuse me, dear. But I think it was Thailand where it rained. And a little bit in New Zealand.

Elbie: New Zealand? You certain we . . . Oh, sure enough, that's where I took that farmer in a funny hat for a helicopter ride. Fine place, New Zealand.

Birdie Bird: South Korea, dear.

Elbie: Yep, and then I snuck off from there for the afternoon to visit our boys in Vietnam. "Come home," I told them in my ringing words "with that coonskin on the wall."

Myna Bird (puzzled): I thought our soldiers called them gooks.

Birdie Bird: That was Manila, Elbie.

Elbie: What do you mean? Our boys are fighting in Vietnam. Or is it Thailand? Or is it both? It's hard to think straight.

Birdie Bird: I mean you snuck off from Manila. Remember, that's where you had your conference?

Elbie: Conference? Say, I plumb forgot! That's where I got a real lot done and made a heap of fine friends I'll never forget, like . . . Like . . . Hand me my address book there, Birdie Bird.

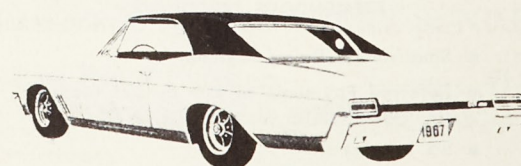
Birdie Bird (sighing wearily): You know, Elbie, I'm not saying it wasn't a great trip, seeing all those countries. But, my, all that tramping around! Next year, let's just pick the country we like best and spend the whole two weeks in one place. Seems to me, you'd accomplish just as much.

Elbie (snorting): Accomplish what? You think I could keep the Republicans off the front pages by spending two weeks in Texas?

Well, tune in again, friends. And as you mosey down the winding trail of life, remember what Elbie's old granddaddy used to say: "When skies are grey, when you haven't got a friend, when the whole world's down on you — look busy."

\$\$\$ SAVE \$\$\$
WE SELL TO EVERYBODY WHOLESALE
Open 8 to 8 Monday thru Saturday — 9 to 1 on Sunday
HOOK AUTO SUPPLY
PHONE 364-5252

WE'VE GOT THE
"IN" CAR FOR YOU.
1967 BUICK.



GS 400 SPORT COUPE

A Finance Plan With GMAC to Fit Your Needs

OVERHOFF BUICK CO.

4th & Elm Streets

Rolla, Mo.

C E Department Delegates Attend R&D Conference

Four members of the civil engineering department at UMR, Dr. T. S. Fry, Dr. T. E. Harbaugh, Prof. J. B. Heagler, and Dr. W. R. Malisch, recently returned from the Regional Research and Development Conference in Kansas City, Missouri. The conference was held to discuss the administration of the Highway Planning and Research program and the purpose

and goals of the National Program of Highway Research and Development.

Representatives from a seven-state area were represented at the conference. Discussions were held to acquaint these groups with the role they may play in the overall National Program for Research and Development in Highway Transportation.

Student Union News...

1. Sunday Movie "Disorderly Orderly" shown at 2:30, 5:00, 7:30 p. m.

2. ACU Bridge Tourney — Sign up in the Student Union Lobby.

3. Special Showing "Father Goose" in the Union Ballroom Nov. 22 at 5:30 and 8:00 p. m.

MRS. MARSHALL FINDLEY TO SPEAK

Democracy to Be Topic Of Arab Student Forum

Mrs. Marshall E. Findley will give a talk about "Democracy, A Way of Life" to the members of the Arab Organization. The meeting will be a regular general assembly followed by the talk. The meeting will be held in Room 213-214 in the Student Union on Saturday November 19, 1966, at 7:30 p.m.

Mrs. Findley, a history teacher who lived in Egypt for a year, is the wife of Dr. M.E. Findley who was teaching at Alexandria University as a visiting professor. She has visited Europe and the Middle East.

Everyone is cordially invited to attend.

Alcoa Company Grants To Aid UMR Met Students

The University of Missouri at Rolla has received two new fellowships for students in the department of metallurgical engineering from the Alcoa Foundation, Pittsburgh, Pa.

The first such Alcoa-sponsored fellowships on the U.M.R. campus specifically designed for students in this field, these are in addition to other Alcoa scholarships at U.M.R.

Two fellowships, each of \$3,500 will be awarded annually to graduate students in metallurgical engineering chosen by a faculty committee. Recipients will be announced later this year.

Part of the \$1 million plus that Alcoa will give to colleges and universities this year, the fellowships signify the desire of the industry to encourage students to enter the field of metallurgical engineering.

According to Dr. Harry W.

Alumni Notes — UMR Graduates Serve America

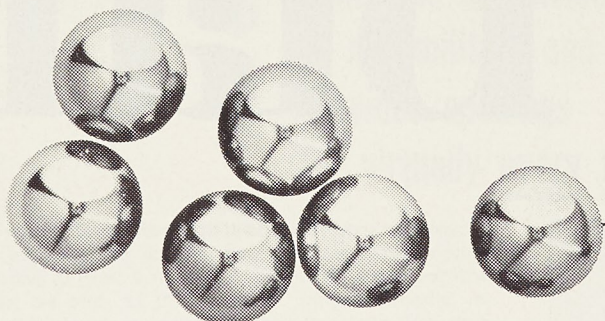
Second Lieutenant Douglas Schellman, a 1964 UMR graduate with a Masters Degree in Mechanical Engineering, is currently serving in Korea as platoon leader with the 13th Engineer Battalion of the 7th Infantry Division.

Chester W. Sturgeon, who graduated from UMR in 1960 with a B.S. in Electrical Engineering, was recently appointed a development engineer/manager of Computer Reliability and Maintainability Design at IBM's Electronic Systems Center at Owego, New York. A native of St. Louis, Sturgeon was a member of Eta Kappa Nu and Tau Beta Pi while at UMR. He began working for IBM as a junior engineer in February, 1960 and was named associate engineer in August of 1961, senior associate engineer in November of 1962, staff engineer in October of 1963 and project engineer/manager of Computer Reliability and Maintainability Design in October of 1965 before being promoted to his present position.

Second Lieutenant Ron Marshall is currently in Seoul, Korea as commanding officer of his unit with the engineering detachment stationed there. Marshall, who graduated last year from UMR, worked for several months at the NASA installation at Huntsville, Alabama before going overseas.

Weart, chairman of the department of metallurgical engineering, "Such an award of unrestricted nature for graduate work enables the department to continue maximizing its contributions in the field of metallurgical engineering."

We set out to ruin some ball bearings and failed successfully



The Bell System has many small, automatic telephone offices around the country. The equipment in them could operate unattended for ten years or so, but for a problem.

The many electric motors in those offices needed lubrication at least once a year. Heat from the motors dried up the bearing oils, thus entailing costly annual maintenance.

To stamp out this problem, many tests were conducted at Bell Telephone Laboratories. Lubricant engineer George H. Kitchen decided to do a basic experiment that would provide a motor with the worst possible conditions. He deliberately set

out to ruin some ball bearings by smearing them with an icky gunk called molybdenum disulfide (MoS₂).

Swack! This solid lubricant, used a certain way, actually increased the life expectancy of the ball bearings by a factor of ten! Now the motors can run for at least a decade without lubrication.

We've learned from our "failures." Our aim: investigate everything.

The only experiment that can really be said to "fail" is the one that is never tried.

AT&T Bell System
American Telephone & Telegraph and Associated Companies

Research Papers Delivered at Forum

Two UMR professors presented papers at the International Conference on the Characterization of Materials Nov. 16 through 18 at the Pennsylvania State University, University Park. About 400 researchers in solid state chemistry and physics from all over the world attended.

Dr. William J. James, director of the Graduate Center for Materials Research, professor of chemistry, and research professor of materials, presented an article entitled "Ferroelectric Properties of Lead-Titanate, Lead-Zirconate, Bismuth-Ferrate Ternary System." The paper is co-authored by Dr. Robert Gerson, professor of physics, D. Clarida, who received an M.S. degree at UMR; and J. Canner, candidate for the Ph.D. degree at UMR.

Magnetism Seminar To Be Conducted By Dr. E.F. Bertaut

One of the world's leading authorities in the field of magnetic structures, Dr. E. F. Bertaut, will speak at the University of Missouri at Rolla at 4:30 p.m. Nov. 21 in Room G-6 of the Chemical Engineering Building.

The public is invited to attend the seminar on "Magnetic Couplings and Crystal Symmetries by Neutron Diffraction."

Dr. Bertaut, who is the author or co-author of 200 papers, is director of the neutron diffraction laboratories in the Center for Nuclear Studies, Grenoble, France and head of the X-Ray Laboratories at Fourier Institute of the University of Grenoble. He is a student of the Weiss and Neel French school of magnetism.

The seminar is sponsored by the Graduate Center for Materials Research and the American Chemical Society.

UMR Professors Present Papers At AIChE Meeting

Two UMR Professors presented papers at the second annual American Chemical Society meeting held recently at the University of Kansas, Lawrence.

Associate professors of chemistry, Dr. Samir B. Hanna and Dr. David S. Wulfman, presented articles on new advances in chemistry investigated in UMR laboratories.

About 800 chemists from Kansas, Nebraska, Missouri and other Midwestern states attended the conference which was sponsored by six local sections of the American Chemical Society. Sponsoring groups were the South Central Missouri Section, located in Rolla; the University of Missouri, Columbia; the University of Kansas; Kansas State University; and Nebraska, Kansas City and Southeast Kansas Sections.

Two graduate students from UMR attended the session. They are J. J. Ward and Paul Griffin of Rolla, candidates for the Ph.D. degree in chemistry.

Dr. Martin E. Straumanis, professor of metallurgical engineering and research professor of materials, presented a paper entitled "Imperfect Structure of Hafnium Nitride and the Problem of Bonding." This paper is co-authored by C. A. Faunce, who received an M.S. degree in metallurgical

engineering at UMR.

Also attending the conference from UMR were Dr. Gerson, Dr. Robert Moore, chairman of the department of Ceramic engineering, and Dr. Gordon Lewis, associate professor of ceramic engineering and research associate professor of materials.

Annual Research Session Featured Dr. R.L. Davis

Dr. R. L. Davis, assistant professor of mechanical engineering at UMR, has returned from Pittsburgh where he presented a paper to the annual meeting of the Society for Experimental Stress Analysis.

The paper, presented before the research session, was entitled "Pressure-dependent Yield and Fracture Models from Available

Experimental Data." The report was based on research done by Davis and J. F. Daugherty, co-author of the paper, for Pressure Science, Inc.

The paper provides an explanation of why brittle materials such as rock, concrete, marble and tungsten can be formed in the same manner as soft materials such as aluminum and mild steel.

Rolla Professors Attend Missouri Physics Meet

Six UMR professors recently participated in the semi-annual meeting of the Missouri Section of the American Association of Physics Teachers held at Washington University, St. Louis.

Dr. Harold Q. Fuller, acting dean of the U.M.R. School of Science and chairman of the section, presided over the meeting. Also attending from U.M.R.

were as follows: Dr. Louis H. Lund, Dr. Franklin B. Pauls, Dr. Charles E. McFarland, and Dr. Richard Alan Anderson, Dr. John T. Park, and Robert R. Northdurft.

The meeting, which was attended by about 75 high school and college physics teachers from Missouri, will be held again in Rolla this spring.

BAXTER'S CUT RATE LIQUOR

LIQUOR — WINE — BEER

CHAMPAGNE

Special Prices on Case Buying!

Telephone 364-2004

Highway 63 East

Rolla, Missouri

We've got the best facilities, the finest benefits, and blah, blah,

blah!

Sure, you've heard it before—probably from so many companies it's lost its meaning for you.

So we'll skip the story about our having the best, or the most, or the finest of anything. Even if we think privately that it's true, it still remains for you to be convinced.

We do have a booklet about our facilities, the work we do, the places where we work, the cities and towns we live in.

And if you've got the maturity to know that a man gets ahead on his own demonstrated ability

to handle a job, you're the kind of man Collins would like to talk with.

We suggest you see your college placement officer for details. If he happens to be out of Collins Career books, write to Manager of Professional Employment, Collins Radio Company, in Cedar Rapids, Iowa; Dallas, Texas, or Newport Beach, California.

Then, contact the Collins representative when he visits the campus. You'll get straight talk about careers at Collins.

COMMUNICATION / COMPUTATION / CONTROL



An equal opportunity employer

COLLINS RADIO COMPANY / DALLAS, TEXAS • CEDAR RAPIDS, IOWA • NEWPORT BEACH, CALIFORNIA • TORONTO, ONTARIO
Bangkok • Beirut • Frankfurt • Hong Kong • Kuala Lumpur • Los Angeles • London • Melbourne • Mexico City • New York • Paris • Rome • Washington • Wellington

Campus Organizations Elect Officers

SPE

John Knepler is the newly elected president of the Society of Petroleum Engineers. Assisting him are Bill McCaw, vice president; Norman Nuss, treasurer and Jim Ragland, secretary. All are seniors in petroleum engineering.

The Society of Petroleum Engineers is the professional organization for Petroleum Engineers. Since its recognition as a distinct profession in 1913 it has grown to be the largest of the three sections of the American Institute of Mining, Metallurgical and Petroleum Engineers. The society promotes professional development and serves as an open channel through which knowledge of petroleum production and engineering is exchanged.

WESLEY

Officers for Wesley Foundation have recently been elected at UMR. They are as follows: Floyd Jennings, president; John Pitt, vice president; David Simmons, secretary; James Worts, treasurer; Leon Hall, council member; Robert McCrae, state member; Gerald Hitt, council member; James Mastin, state secretary and Lynn Brandhorst,

state council members.

The Wesley Foundation is the national organization for Methodist college students and was organized in 1913. The Foundation at UMR was established in the early 1920's.

ASTME

The American Society of Tool and Manufacturing Engineers has recently elected new officers. They are as follows: James E. Diekman, president; Morton G. Barth, first vice chairman; Michael R. Woodruff, second vice chairman and Robert J. McCoy,

Jr., secretary. All are seniors in mechanical engineering.

The American Society of Tool and Manufacturing Engineers is an educational and scientific institution which serves the professional needs of tool and manufacturing engineers throughout the free world.

Students who are studying tool and/or manufacturing engineering or related engineering may qualify for student membership. The student chapter holds regular meetings featuring speakers from industry and education.

Diehl Montgomery, Inc.

ROLLA, MISSOURI

FORD — LINCOLN — MERCURY — T-BIRD — CONTINENTAL

DRIVE YOUR NEW CAR BEFORE YOU GRADUATE!

See Us for Your Special Student Pay Plan

on New or Used Cars.

Payments Tailored While You Are in School and Out.

NEWS for ENGINEERING GRADUATES

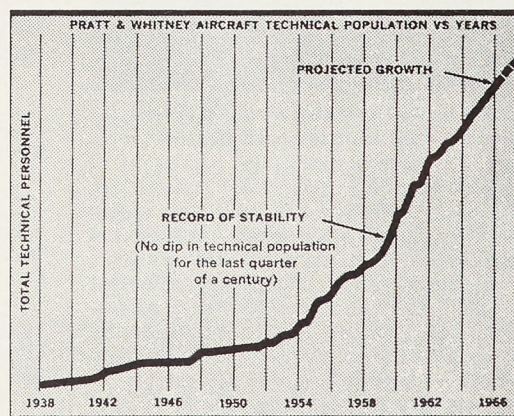
Continued expansion
of our military and commercial business
provides openings
for virtually every technical talent.

As you contemplate one of the most important decisions of your life, we suggest you consider career opportunities at Pratt & Whitney Aircraft. Like most everyone else, we offer all of the usual "fringe" benefits, including our Corporation-financed Graduate Education Program. But, far more important to you and your future, is the wide-open opportunity for professional growth with a company that enjoys an enviable record of stability in the dynamic atmosphere of aerospace technology.

And make no mistake about it . . . you'll get a solid feeling of satisfaction from your contribution to our nation's economic growth and to its national defense as well.

Your degree can be a B.S., M.S. or Ph.D. in: **MECHANICAL, AERONAUTICAL, CHEMICAL, CIVIL (structures oriented), ELECTRICAL, MARINE, and METALLURGICAL ENGINEERING • ENGINEERING MECHANICS, APPLIED MATHEMATICS, CERAMICS, PHYSICS and ENGINEERING PHYSICS.**

For further information concerning a career with Pratt & Whitney Aircraft, consult your college placement officer—or write Mr. William L. Stoner, Engineering Department, Pratt & Whitney Aircraft, East Hartford, Connecticut 06108.



Take a look at the above chart; then a good long look at Pratt & Whitney Aircraft—where technical careers offer exciting growth, continuing challenge, and lasting stability—where engineers and scientists are recognized as the major reason for the Company's continued success.

SPECIALISTS IN POWER . . . POWER FOR PROPULSION—POWER FOR AUXILIARY SYSTEMS. CURRENT UTILIZATIONS INCLUDE MILITARY AND COMMERCIAL AIRCRAFT, MISSILES, SPACE VEHICLES, MARINE AND INDUSTRIAL APPLICATIONS.



Pratt & Whitney Aircraft

CONNECTICUT OPERATIONS EAST HARTFORD, CONNECTICUT
FLORIDA OPERATIONS WEST PALM BEACH, FLORIDA

DIVISION OF UNITED AIRCRAFT CORP.
**U
A**
An Equal Opportunity Employer

MSM Radio Club Receives Grant

The MSM Radio Club has announced a grant of \$150 from the student council. The money will be used for remodeling and improvement of the club's amateur radio station, located in the basement of the Rolla Building. The club furnishes a free message service for all of the continental U.S. and possessions, and certain foreign countries. Message forms are available in the Student Union.

Thanks to the help of the UMR student body, the Radio Club achieved national recognition for its message service by earning membership in the Brass Pounders League of the Month for October.

Delta Sig's Plan Work and Play

The annual Pledge-Active football game of Delta Sigma Phi will be held this weekend. It will coincide with a work weekend in which actives and pledges will pitch in and work on minor improvements for our new house.

Everyone was proud to hear that Brother Bob Nicodemus was elected Theta Tau's Freshman of the Year. Bob, who comes from Nevada, Missouri, is majoring in Mechanical Engineering.

Delta Sig has enjoyed one of its finest seasons on the intramural field. We placed seventh in cross country, and our football team compiled a 3-3 record in which two of our losses came in overtime. Right now we are preparing to begin the basketball season with a team that should be our best ever.

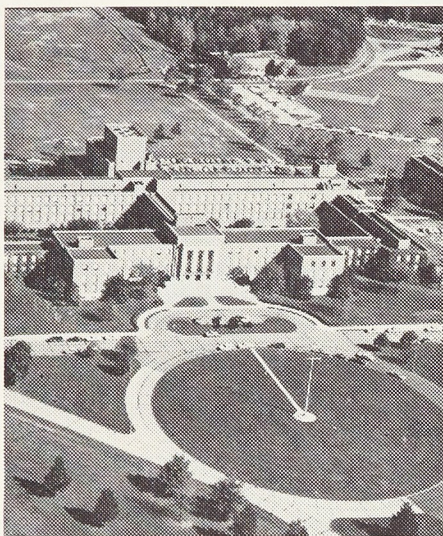
With the I.F.C. sing coming up our chorus has been preparing its entry.

After graduation, what? Will you begin your career as an engineer or scientist or return to school for an advanced degree?

You can do both at NOL



If you are an engineer in the top third of your class or a scientist in the top quarter of your class, NOL offers you the opportunity to begin your career in one of the world's great laboratories and, at the same time, go ahead with your plans for graduate study.



NOL is a laboratory in the true meaning of the word, and one of the largest and best-equipped laboratories in the world. It is the nation's leading R&D establishment for Anti-Submarine Warfare (ASW), the Navy's principal high speed aeroballistics activity, and a leader in the development of new air and surface weapons. The spectrum of research at NOL ranges from nuclear effects to acoustics to explosives and materials. At NOL, weapons development is carried through from inception to design to prototype test and development. Since 1950, NOL has completed 209 new weapons and devices such as SUBROC, nuclear depth bombs, mines, projectile fuzes, underwater detection systems, and components and design data for POLARIS, TARTAR, TALOS, TERRIER, ATLAS and TITAN missiles. A civilian staff of over 3,000 people includes more than 1,000 professional engineers and scientists—experts with national and international reputations. Extensive and unique facilities embrace wind tunnels operating to Mach 17, hypervelocity ballistic ranges, the world's most exceptional hydroballistic facility, shock tunnels, 300g centrifuge . . . multi-million-dollar experimental facilities.

Here is your opportunity. Each year, NOL interviews outstanding engineering and science graduating students. Selects the handful that seems to be really creative. Takes them to its beautiful 875-acre "campus" (the front yard is a golf course) in the rolling hills of Maryland near the Nation's Capital. Puts them through an optional one-year professional development course with rotational assignments to various areas within the Laboratory to prepare them for permanent assignments.

From the very beginning, new staff members have an opportunity to contribute directly to significant projects . . . to be part of an organization where groups are small and emphasis is on the individual.

NOL offers you a graduate study program that is one of the largest and most productive programs in the country. Each year members of our professional staff receive M.S.'s or Ph.D.'s through this program. NOL has a significant advantage in its proximity to the University of Maryland. Many NOL staff members hold permanent part-time positions on the Maryland faculty, and graduate level courses are taught at NOL every semester. Maryland also offers many courses on its own campus—only minutes away—at times which are convenient to and keyed to the special requirements of NOL.

sile systems, instrumentation for weapons evaluation and aeroballistics research, and performance of new concept feasibility experiments.

Chemical Engineers and Chemists—for research and development pertaining to high-energy propellants and explosives; high polymers; molecular and crystal structures; electrochemistry; high-temperature, high-pressure chemical equilibrium studies; and the thermodynamics of high-energy reactions.

Engineering Physicists and Physicists—theoretical and experimental research in a wide range of areas including signal processing, infrared radiation, acoustics, magnetic and semi-conductive materials, and detonation physics; plus weapon systems development and studies.

NOL ACADEMIC STUDY PROGRAMS

PROGRAM	COMPETITION	ADMITTANCE	SUPPORT
Part-time Graduate Study	Open to all qualified employees.	Approval by line management.	Refund of tuition and fees if course grade is "B" or better . . . approx. ½ time plus travel time for attendance.
Graduate Work-Study	Recent college graduates in certain engineering & scientific fields.	Selected by Personnel Officer . . . admission to local graduate school for M.S.	Full salary, tuition, books & fees . . . 2 days each week devoted to study and classes for 2 years maximum.
Intermediate Graduate Study	Recent college graduates in certain engineering & scientific fields.	Selected by Personnel Officer . . . admission to graduate school . . . an honors program.	Full tuition, books, fees, travel per diem & ½ GS-7 salary . . . (over \$3800) . . . 2 semesters full-time.
Advanced Graduate Study	Scientists & Engineers, grade GS-11 and above.	Selected by NOL Training Committee.	Full tuition, books, fees, travel, per diem, & full salary for 2 semesters.

NOL NEEDS:

Aerospace Engineers or Hydrodynamicists—design studies of high-speed, high-performance re-entry systems, basic problems in theoretical and experimental aerothermodynamics, aeroballistics and hydroballistics; and aerodynamic design and development of hypervelocity wind tunnels and ballistic ranges.

Mechanical Engineers—conceptual design and development of warhead safing, arming and target-detecting devices for tactical and strategic missiles, underwater weapons, vehicle structures, and mechanical or electromechanical time and motion-sensing mechanisms.

Electronic Engineers—design, development and evaluation of underwater communications and detection systems, weapons guidance systems, influence fuzing, air-borne mis-

An NOL representative will be on campus . . .

FRIDAY, DECEMBER 2, 1966

Contact your Placement Office for interview.

Summer Professional Employment . . . for outstanding graduate students and graduating seniors.

**U. S. NAVAL
ORDNANCE
LABORATORY**

WHITE OAK, MARYLAND



MINER SPORTS

FRIDAY, NOVEMBER 18, 1966

THE MISSOURI MINER

PAGE 9

Miners Close Out League Play With 36-13 Loss to Maryville

By Greg Julian

A disappointment was passed to the Miners as the laurals for their last home game of the season fell to Maryville 36-13. The Miners' defense didn't seem to connect with Maryville's offense until the second half when the visitors tallied only 6 points.

Action on UMR's side of the field came early and late in the game. After Maryville's Joe Spinello ran 4 yards for a TD, Rolla's freshman Ron Boyer connected with a pass from Ron Lewis to put the Miners 1 yard from scoring. With 8:13 left in the first quarter, Bob Nicodemus ran the extra yard, and Art Verdi made the kick good to put the Miners in the lead 7-6. But the remainder of the half was completely dominated by the Bearcats, who completed three more TD's and a FG.

Last Minute Score

One of Maryville's TD's came at the very end of the first quarter. There was just enough time to call the signals for one play when Maryville's quarterback Don Orlowski broke through the Miners line and ran 28 yards for a TD while the buzzer sounded. Mickey Thompson made the kick good for a first quarter score of 13-7.

With 9:12 left in the half Bob Leach intercepted a Miner pass and ran 12 yards for a TD. Mary-

SCORE BY QUARTERS

UMR	7	0	0	6	— 13
NWMS	14	16	0	6	— 36

STATISTICS

UMR		NWMS
14	First Downs	15
61	Yards Rushing	204
174	Yards Passing	151
41	Passes Attempted	14
12	Passes Completed	6
0	Passes Intercepted	3
65	Yards Penalized	111

MIAA REPORT

Springfield Sweeps MIAA, Defending Champs Last

By Bill Conner

Southwest Missouri State defeated Central Missouri State 10-0 to run their conference to 5-0 and capture the MIAA championship. The Bears recovered a Mule fumble on the Mule 5-yard line and Jay Cummings drove across on the next play. The Mules' offense was contained by the Bear defense all afternoon.

The Bears drove to the Mules' 15 before stalling in the fourth quarter. Rudy Rinker salvaged the drive with a field goal with 4:23 left.

Southwest Missouri State rolled over Northeast Missouri State 41-19 to clinch second place in the MIAA. The Indians' quarterback Greg Brune passed for

ville again broke into the scoring circle with 2:24 left in the half when Spinello threw a 23 yard pass to Jim Johnson and Orlowski ran the remaining 20 yards for a TD while Johnson again kicked the extra point. With 9 seconds left, Mickey Thompson kicked a 40 yard field goal to give the Bearcats a half-time edge of 30-7.

Both Held Scoreless

As the third quarter broke open, fumbles were made by both teams, but no scoring resulted as both defenses held tight. A fourth quarter 30 yard pass to Jim Johnson from Orlowski broke the second half scoring deadlock. Then with only 18 seconds left in the game Miner halfback Tom Schomehel ran 1 yard for a score to make the final score 36-13.

According to Coach Dewey Allgood, Mike Holtkamp put out

son," remarked Dewey. In this game he tallied 7 first hits and 5 assists. The leader was Joe Stroud with 11 first hits and 4 assists.

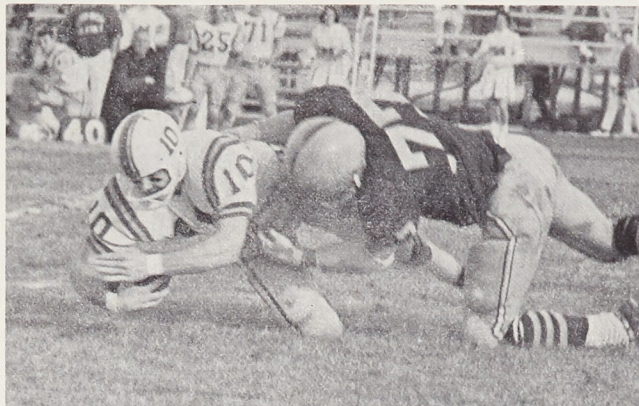


Photo by Greg Julian

BEARCAT BITES THE DUST—Freshman Mike Holtkamp downs Maryville quarterback Don Orlowski. Holtkamp totaled 7 hits as defensive middle guard on the Miner squad.

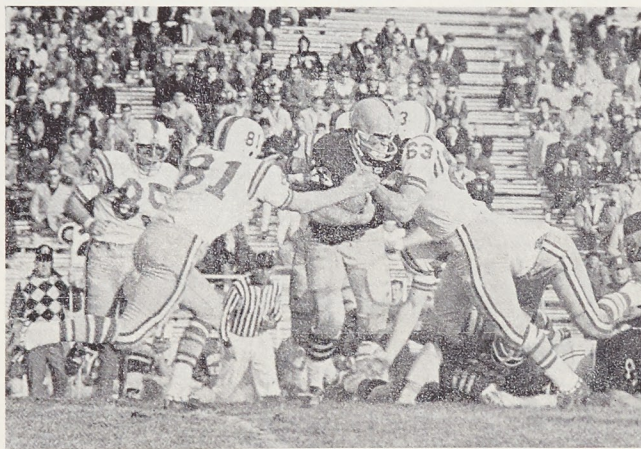


Photo by Greg Julian

HENEHAN CARRIES — Junior halfback Bill Henehan carried for 19 yards in the game against Maryville. The UMR squad totaled only 97 yards rushing, compared with the Bearcats' 244.

an excellent performance as a defensive middle guard. "He has been consistently good all sea-

Intramural Point Standings

Team	IM Pts.
Kappa Sigma	505.5
Sigma Nu	493.25
Lambda Chi Alpha	465.5
Shamrock Club	447.25
MRHA	440.0
Pi Kappa Alpha	411.0
Phi Kappa Theta	407.0
Thomas Jefferson	398.75
Beta Sigma Psi	389.0
Kappa Alpha	369.25
Delta Sigma Phi	355.25
Tech Club	354.5
Sigma Tau Gamma	350.0
Sigma Phi Epsilon	345.5
Sigma Pi	333.0
Triangle	318.5
Tau Kappa Epsilon	298.0
Theta Xi	296.0
Fifty-Niners	294.0
Kappa Phi	294.0
Engineers Club	266.5
Prospectors Club	250.0
Campus Club	212.0
Alpha Epsilon Pi	173.25
Baptist Student U	118.5
Acacia	105.5
Alpha Phi Alpha	91.5
Phi Beta Iota	91.5
Wesley	27.5

Bradley Braves Host UMR In Grid Season Finale

The University of Missouri at Rolla will close out its 1966 football season with a contest against the Bradley Braves in Peoria, Illinois, this Saturday. Dewey Allgood's Missouri Miners will be shooting for their fourth win of the season, having finished fifth in the MIAA as a result of last week's 36-13 loss to Northwest Missouri State. Bradley will bring a 5-4 mark into the game.

This week, Allgood has been drilling the Miners in daily, final practice sessions, hoping to clear-up most of the mistakes that cost him victory Saturday. The UMR passing game was weak against Maryville, and Miner quarterbacks could only connect on 12 of 41 attempts.

Calling signals this weekend will be Ronnie Lewis, tenth leading passer in the NCAA's small college list previous to the Maryville battle. Should Lewis need help, sophomore Jim Bensko from Tulsa, Oklahoma, will be ready to go.

UMR's freshman halfback Tom Schomehel, from Malden, Missouri, continues to blend with the veterans on the squad. Schomehel scored one of two touchdowns against Northwest Saturday, and he is fourth on the list of leading rushers.

PROBABLE STARTING LINE-UPS

Miners		Braves
Boyer	LE	Ulrich
Lasados	LT	Goode
Steenrod	LG	Schumacher
Fridley	C	Cummins
Dooms	RG	Andrews
Owens	RT	Muni
Starnes	RE	Radachonski
Lewis	QB	Selinger
Schomehel	HB	Dafferner
Ricker	HB	Knox
Nicodemus	FB	Bruscino

Game time 2 p. m., in Peoria, Illinois

Varsity Rifles Defeat Rose Poly In Double Match

The UMR Varsity Rifle Team remained unbeaten in shoulder-to-shoulder matches by defeating the Rose Polytechnic Institute Varsity Team from Terre Haute, Indiana. The Miners outtired Rose Poly in a double match at the UMR range on Saturday of Parent's Day weekend by a score of 2120 to 2015.

Wilford Pomeroy was top firer for the Miners with a 551 total. In second place was Robert Hill, 534; followed by Richard Wheelove, 531; and George Crandall, 504.

The top firer for Rose Poly was Charles Hopper with a 521 total.

The UMR second team, led by John Peery firing a 258, beat the Rose Poly second team in a single match by a score of 993 to 904.

On the 18th, 19th and 20th of November, the Miner firers will travel to Stillwater, Oklahoma to participate in the Oklahoma State University Intercollegiate International Invitational Tournament. This will be the teams first

competitive experience consisting of 1200 points per firer. In preparation for the tournament, UMR coach, MSG William D. Merideth and assistant coach, SFC Orvil E. Parker plan to fire intra-team matches of this type during the next two weeks.

Game time in Peoria Saturday will be 2 p. m., with the action taking place in the Peoria Public School Stadium.

UMR VARSITY BASKETBALL

FIRST GAME DEC. 1
UMR vs. HARRIS TEACHERS
AT ROLLA HIGH GYM



VOLKSWAGEN
Sales and Service
BILL SOWERS MOTORS

Phone 364-5178 Hwy. 66 E. in Northwey

"USED CARS HWY. 66 W. BY BIEDERMAN'S"

THE WEEK THAT IS!

Harmon Picks Notre Dame by 11 In Vie for Nation's Top Spot

This is the week that IS! Number One meets Number Two in what cannot be billed as just the college game of the year . . . it could rank with one of the greatest of all time. Our forecast for the Notre Dame-Michigan State headliner is based on the following: The Irish have a past performance power quotient of 123.9; the Spartans' power quotient is 112.5. Since our paper statistics have proven to be correct in about 75% of the college games again this year, we'll crawl slowly out on the creaking old limb of ours and pick Notre Dame to win the Big One by eleven points.

Some of the glitter has been taken away from the struggle between 7th-ranked Southern Cal and 10th-rated UCLA as a result of their respective losses to Miami and Washington. However, with both the conference title and the Rose Bowl at stake, it's pretty sure to be another tough one for coronary sufferers. The Trojans will nip the Uclans by three, and take the West Coast title into the Rose Bowl come January 1st.

Southwest Conference leaders Arkansas and SMU, ranked 4th and 16th respectively, are favored to remain deadlocked for the title. The Razorbacks will trim Texas Tech by 27 points, and the Mustangs will barely buzz by Baylor by four points.

And the rise of the Rebel continues! Mississippi, ranked ninth this week among the nation's elite, will whip the Commodores of Vanderbilt by 26. Purdue, No. 11, assured of being the Big Ten's

representative in the Rose Bowl, will close out one of its finest seasons with a three-touchdown win over Indiana.

Wyoming, No. 17, will blitz Brigham Young by nine points, and Colorado, in 19th, will chop up the Air Force by thirteen.

The remaining three members of the Top 20 should win without too much difficulty. 14th-ranked Tennessee is 22 points stronger than Kentucky . . . Syracuse, rated 15th, will whip West Virginia by 21 . . . and 18th-ranked Miami

is favored to cut down the Iowa Hawkeyes, winning by 21 points.

Looking ahead for a quick minute to Turkey Day, Big Eight Champion Nebraska, ranked 8th, will slip a big final needle to Oklahoma by a skimpy four points. And Texas, in the No. 20 position, will spank Texas A & M by nine.

Next week, we'll stir up a few arguments with our annual rating of the top twenty small college football teams in the country.

MEET THE MINERS

By Lloyd Lazarus

Larry Oliver, a sophomore, five foot eight inch, one hundred and sixty three pound half back is completing his first season on the football team. Larry played football for McCluer high school before entering UMR.

Two weeks ago Larry replaced an injured Eugene Ricker and set a new UMR record for most yardage gained by a pass receiver in a single game with 156 yards. Larry was happier about getting into the game than setting the new record.

Larry is a brother in the Sigma Phi Epsilon fraternity, and is a member of the Rugby club and the ASCE.

He feels that our main trouble this season has been losing the football after getting within the enemy's fifteen yard line. He also felt this game was one of the few we have played this year that we have played a full game

instead of just three quarters.

Larry is another member of the football team who is looking forward to next season. He feels that next years team will be the best UMR has produced in quite a few years.

University Intramurals Aid Physical Development

The intellectual glory of the ancient Greeks was also paralleled by an athletic glory that has never been surpassed. It is therefore not unusual for an institution with high academic standards such as the University of Missouri at Rolla to have one of the most outstanding intramural sports programs in the United States.

Established in 1927, UMR intramural activities have been one of the concrete ways by which these students of engineering and science have found wise and satisfying use of their leisure time. Over 60% of the student body at the University of Missouri at Rolla participate in some 1100 intramural contests. With sports ranging from football and basketball to table tennis and rifle marksmanship, every student of the University is given ample opportunity to participate, whether he is affiliated with any special group or not.

It is important that this recreative aspect of intramural sports be kept in mind. While certain rugged sports that require tedious training are necessary to the pro-

gram, there should be greater emphasis on sports that can be enjoyed spontaneously without a great amount of preparation.

Most of the present-day student's time, both studywise and leisure, is of the passive type. UMR's extensive program makes a definite contribution to the "keeping fit" process by offering facilities for participation throughout the school year. Therefore, physical development remains foremost among the objectives of the program, which also include fellowship, social recreation, and the teaching of group cooperation.

Address questions and comments to "Sidelines," c/o The Missouri Miner, UMR, Rolla, Missouri.

The Harmon Football Forecast

TOP 20 TEAMS (Forecasting Average: 1,281 right, 417 wrong, 44 ties754)

1 - NOTRE DAME	6 - GEORGIA	11 - PURDUE	16 - S.M.U.
2 - MICH. STATE	7 - SOUTHERN CAL	12 - HOUSTON	17 - WYOMING
3 - ALABAMA	8 - NEBRASKA	13 - FLORIDA	18 - MIAMI, FLA.
4 - ARKANSAS	9 - MISSISSIPPI	14 - TENNESSEE	19 - COLORADO
5 - GEORGIA TECH	10 - U.C.L.A.	15 - SYRACUSE	20 - TEXAS

Saturday, Nov. 19 — Major Colleges

Arizona State	24	New Mexico	0
Arkansas	21	Texas Tech	0
Boston College	17	Massachusetts	13
Boston U.	33	Rhode Island	7
Bowling Green	20	Temple	1
Buffalo	20	Youngstown	8
Citadel	21	Furman	12
Colgate	23	Rutgers	14
Colorado	21	Air Force	8
Colorado State	30	Wichita	0
Columbia	20	Brown	19
Dartmouth	25	Pennsylvania	0
Dayton	15	Toledo	13
Florida State	23	Wake Forest	14
Harvard	17	Yale	8
Holy Cross	22	Connecticut	6
Illinois	30	Northwestern	7
Iowa State	16	Arizona	14
L.S.U.	20	Pacific	15
Long Beach	19	Tulane	10
Maryland	23	Virginia	13
Memphis	22	Cincinnati	7
Miami, Fla.	28	Iowa	7
Michigan	21	Ohio State	10
Minnesota	21	Wisconsin	12
Mississippi	32	Vanderbilt	6
Missouri	17	Kansas	7
North Carolina	16	Duke	17
N. Carolina St.	10	Clemson	20
North Texas	10	Chattanooga	0
Notre Dame	28	Michigan State	17
Ohio U.	15	Marshall	14
Oklahoma State	23	Kansas State	7
Oregon State	21	Pittsburgh	6
Penn. State	21	Cornell	16
Princeton	17	Indiana	13
Purdue	31	T.C.U.	19
Rice	21	Fresno State	8
San Jose State	27	U.C.L.A.	14
Southern Cal	17	Baylor	10
S.M.U.	14	East Carolina	6
Southern Miss	28	California	8
Stanford	14	West Virginia	14
Syracuse	35	Kentucky	14
Tennessee	28	N. Mexico State	13
Texas Western	21	Louisville	8
Tulsa	25	Utah State	20
Utah	22	Washington State	7
Washington	26	Idaho	20
Weber	24	West'n Michigan	7
West Texas	22	Richmond	7
William & Mary	27	Brigham Young	7
Wyoming	16		

Other Games — East

Albright	14	Drexel Tech	13
Bridgeport	14	Montclair	6
Bucknell	20	Delaware	15
Findlay	21	Susquehanna	6
Franklin & Marshall	14	Ursinus	7
Grove City	21	Thiel	0
Lafayette	27	Lehigh	12
Lebanon Valley	27	Penn. Military	12
Moravian	28	Muhlenberg	12
Swarthmore	20	Haverford	0
Upsala	15	Wagner	12
Western Maryland	20	Johns Hopkins	6
Westminster	20	Mount Union	19

Other Games — Midwest

Bethany, W. Va.	14	John Carroll	13
Bradley	19	Rolla (U. of Mo.)	6
Central Michigan	28	Wayne, Mich.	0
Central Oklahoma	30	Panhandle A & M	0
Denison	21	Ohio Wesleyan	13
Drake	36	Omaha	0

Midwest (Continued)

East Cent. Okla.	26	SE Oklahoma	13
Eastern N. Mexico	21	NW Oklahoma	20
Langston	17	Lincoln	14
Muskingum	20	Baldwin-Wallace	14
Northern Illinois	30	Milwaukee (U. of W.)	0
Southern Illinois	15	SE Louisiana	7
SW Oklahoma	20	Warleton	17
Wheaton	14	North Central	6

Other Games — South and Southwest

Abilene Christian	17	Angelo	0
Arkansas State	17	Trinity	0
Austin Peay	22	Martin (U. of Tenn.)	14
Carson-Newman	15	Wofford	12
Centre	20	Rose Poly	0
Concord	22	Maryville	0
Delta	37	Louisiana College	0
East Texas	15	S. F. Austin	14
Elon	18	Fredrick	13
Emory & Henry	26	Georgetown	9
Howard Payne	21	McMurry	9
Lamar Tech	21	Arlington	20
Mississippi College	19	Livingston	14
NE Louisiana	14	Louisiana Tech	6
NW Louisiana	20	SE Louisiana	7
Ouachita	13	Henderson	0
Randolph-Macon	20	Hampden-Sydney	6
Sam Houston	14	Sul Ross	13
Samford	21	Florence	12
SE Missouri	19	Arkansas Tech	6
Southern State	15	Arkansas A & M	13
SW Louisiana	22	McNeese	20
Tampa	21	Eastern Kentucky	20
Texas A & I	21	SW Texas	16
Washington, Mo.	28	Washington & Lee	6
Western Carolina	14	Presbyterian	7
Western Kentucky	26	Murray	0
Wittenberg	21	Davidson	10

Other Games — Far West

Cal Lutheran	20	Riverside	12
Claremont	19	Cal Tech	7
Los Angeles	24	San Fernando	7
Nevada	15	Humoldt	0
Occidental	19	Pomona	14
Pacific U.	25	Whitman	7
Parsons	30	Hawaii	0
Portland	25	Southern Oregon	13
Sacramento	22	Chico	7
San Diego	28	Northern Arizona	7
San Francisco St.	27	Davis	12
San Francisco U.	18	Hayward	13
Santa Barbara	20	Cal Poly (S.L.O.)	19
Santa Clara	15	Cal Poly (Pomona)	7
Southern Colorado	25	Colorado Mines	20
Whittier	10	Redlands	7

Thanksgiving Day — Thurs., Nov. 24

C. W. Post	18	Hofstra	14
Chattanooga	21	Austin Peay	15
Eastern Washington	25	Whitworth	15
Guilford	14	Appalachian	7
Idaho State	14	Portland State	0
Lenoir-Rhyne	26	Catawba	7
Middle Tennessee	20	Tennessee Tech	14
Nebraska	14	Oklahoma	10
Presbyterian	16	Newberry	13
Texas	36	Texas A & M	6
Tulsa	17	George Washington	14
Villanova	32	V.M.I.	0
V.P.I.			

Sports Calendar

VARSITY FOOTBALL

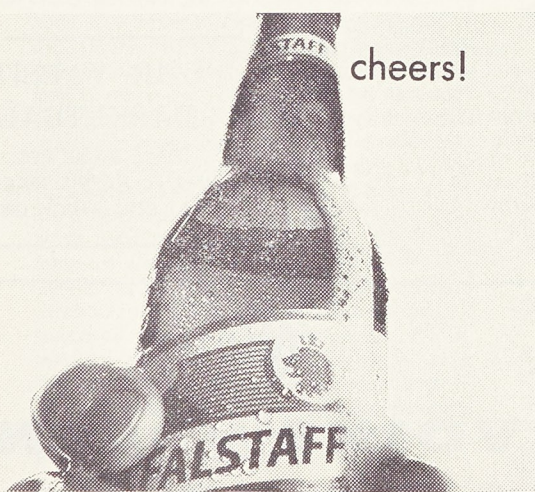
November 19 Bradley University, at Peoria, Ill.

VARSITY BASKETBALL

December 1 Harris Teachers College, at UMR

INTRAMURAL SPORTS

November Basketball play continues



Distributed by
MUELLER DISTRIBUTING CO.
217 W. 6th St. Rolla, Mo.