

THE TULANE ENGINEER

MAY, 1959

Col. Fox Retires June 1, 1959

On the occasion of Col. Fox's retirement from the staff of Tulane University, the executive committee of this Society deemed it appropriate to publish an article on his life and accomplishments. We could find no one better qualified to perform this task than Walter Blessey, a former student, and a close associate of Col. Fox for many years. The following article is an excellent testimonial to the interest Col. Fox displayed in his students, community and friends. The Society wishes him many, many years of health and happiness in his retirement.

BIOGRAPHY OF COLONEL F. H. FOX

By Walter E. Blessey

Colonel Frederick H. Fox retires in June 1959 as Professor of Civil Engineering and Head of the Department of Civil Engineering in the School of Engineering at Tulane University after 38 years of service.

A native of Chattanooga, Tennessee, he received his early education in schools of that city. He received a bachelor of science degree in general engineering from Ohio State University in 1916 and the degree of Civil Engineer (masters degree) from Ohio State University in 1940. He has since followed a dual career as an Army officer and as a university faculty member, with additional education received in the graduate university of the Sorbonne in Paris and specialized training in a number of Army schools.

He served with the U. S. Army's World War I combat engineers in France during the war and then returned to civilian life as a locating engineer for the Tennessee State Highway Department from 1919 to 1920. In 1920 he became an instructor in civil engineering at Kansas State College. He joined the faculty (SEE 'RETIREES'—Page 3)

13th Annual Alumni Fund Drive Requires Donors



COL. FREDERICK H. FOX

Expanded Graduate Program in Mechanical Engineering

The Department of Mechanical Engineering is now offering a more complete graduate course than at any previous time in the history of the School. This is in keeping with our plans for developing a stronger graduate program in the School of Engineering in all curricula.

Mechanical Engineering graduate courses now available are:

- Nuclear Reactor Engineering I
 - Nuclear Reactor Engineering II
 - Nuclear Reactor Engineering III
 - Advanced Plant Design
 - Experimental Stress Analysis
- (See 'GRAD'—Page 2)

ENGINEERS TO SHOW IMPROVEMENT

This is the time of the year when the Annual Alumni Fund Drive heads into the home stretch. Whether or not the drive is successful depends on how hard each graduate runs the race. We engineers can help by setting the pace for the other colleges of the University.

It behooves all graduates of the College of Engineering to support this fund drive. We all know that labor and material costs have risen greatly over the years. How much more so have they risen for good education! And you are familiar with the high standards set by Tulane.

Student tuition can cover only a portion of the cost of a college education. Add to this the returns from investments and endowments and a deficit still exists. Even those receipts from various philanthropic foundations cannot completely alleviate the problem. That is where YOUR gift to Tulane comes in.

Your donation, regardless of amount, is the most important received by the University! Because the percentage of alumni donors determines to a large extent the allocation of foundation funds, the number of alumni participating is essential. Stated mathematically,

$(\% \text{ of alumni giving}) \times (\text{foundation funds}) = (\text{Tulane's Share})$

While contributions from Tulane Engineering Alumni average above the totals for the whole University, they run somewhat less than for other professional groups: viz., architecture, law, and medicine. There are (See 'FUND'—Page 2)

THE TULANE ENGINEER

Published by the Society of Tulane Engineers, whose officers are:

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1st Vice President.....A. J. Brodtmann
2nd Vice President.....Henry L. Vix
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.....Kearny Robert
Past President.....Lyman L. Ellzey
Annual Dues.....\$2.00

MAY 1959

THE SOCIETY OF TULANE ENGINEERS

The aims and purposes of this organization are as follows:

1. To keep members of this organization informed of the progress, activities and needs of the School of Engineering.

2. To provide closer contact between former students and faculty by providing information about their whereabouts and activities.

3. To provide employment placement service for prospective graduates and members.

4. To provide a means of raising funds for specific equipment and services.

5. To provide an advisory group whose purpose it is to recommend improvements in curriculum, instruction and classroom procedure.

GRAD (Cont. from Page 1)

Mechanical Engineering Research
Special Problems in Mechanical Engineering

Advanced Thermodynamics
Gas Dynamics

Advanced Heat Transfer
Advanced Fluid Mechanics

General Engineering: Selected Topics in Advanced Mechanics of Materials

General Engineering: Selected Topics in Advanced Dynamics

FUND (Cont. from Page 1)

no sound reasons why this should be so. With engineers coming more and more to the fore in civic and business affairs, it is logical to expect that they will also become more acutely aware of the problems of their university. For this reason, the officers of the Society of Tulane Engineers urge each of you to do your part in the race. With a little effort, our college can set the pace.

ENGINEER SCORES ON GRIDIRON

Dr. Allen N. Smith, a 1941 graduate of Tulane's chemical engineering school, is outpointing the gridiron prognosticators in 41 states. Appearing twice weekly in newspapers across the land, this syndicated sports feature is called, "The Smith Touchdown Tendency System of Ratings." It is a mathematical system for predicting the outcomes of college football games.

Dr. Smith explains his system as follows:

"The Smith Touchdown Tendency System of Ratings," is a combination of mathematics and statistical studies. Factors such as sectional favoritisms, hunches and popular consensus are ignored by the System in its football predictions.

"The Smith Rating System for predicting the outcome of football games is based on the 'touchdown tendencies' of the opposing teams plus the offensive and defensive factors of each team.

"Here is what is meant by touchdown tendency.

"A team that rolls up terrific yardage, yet scores only a few points, has a high yard-per-point ratio; that is, a low touchdown tendency.

"Conversely, a team such as the 1956 Oklahoma squad, which was capable of scoring from any part of the field, has a low yard-per-point ratio, and, therefore, a high T-T.

"After determining the teams' tendencies and their offensive and defensive factors, both passing and rushing, these figures are substituted in a set of simultaneous equations, from which is determined the winner and point difference between the two teams.

"The System, like any other such affair, becomes more accurate as the season progresses due to the greater amount of data available on which to base calculations."

Dr. Smith received his B.S. in Chemical Engineering from Tulane in 1941. He followed this with an M.S. in Chemical Engineering from Georgia Tech in 1943 and a Ph.D. in Chemical Engineering from Oregon State College in 1948. In addition to his duties as a sportscaster, Dr. Smith is head of the Chemical Engineering program of San Jose State College.

TOUCHDOWN!!

Revised Freshman Engineering Course

The one semester-hour course in engineering problems each semester of the freshman year has been undergoing a change in the past three years.

One purpose of the revised course is to introduce the student of engineering to basic ideas, principles, and methods underlying the profession of engineering. It is to serve as a guide in the development of his ideas and attitudes, and also to provide a foundation of elementary knowledge on which to build as he pursues his career in college.

Another purpose is to develop in the engineering student the capacity to meet new situations and to solve new problems with confidence. The very term "engineer" is related to the word "ingenious," meaning clever, resourceful, or able to think creatively in evaluating situations.

There is yet another purpose. Beginning students in engineering often complain that they do not really "get" (See 'FRESHMAN'—Page 3)

See Your Name in Print!!

Fill in the form below, attach to a post card and mail to:

The Society of Tulane Engineers

404 Baronne Street

New Orleans 12, Louisiana

We guarantee publication!!!

NAME.....

.....Last

Branch of Engineering.....

Home Address.....

Business Address.....

I am employed by:.....

News about job (type of work):.....

News about other grads:.....

Suggestions:.....

First

Middle Initial

Year

Home Tel.

Bus. Tel.

Firm Name

RETIRES (Cont. from Page 1)

of Tulane University in 1921 as an assistant professor in civil engineering.

Between 1925 and 1941 he rose from the rank of captain to lieutenant colonel commanding the 108th cavalry of the Louisiana National Guard. In January 1941, he went on active duty and performed military service until he returned to Tulane in 1945, becoming professor and head of the Department of Civil Engineering, July 1, 1946.

He is a member of the American Society of Civil Engineers; the American Society for Engineering Education; the Louisiana Engineering Society for which he served as president in 1936 and several terms as a member of the board of directors; the U. S. National Guard Association; Army and Navy Club; and other professional organizations. He has served as a member of the traffic safety committee of the New Orleans Metropolitan Safety Council; the Governor's Safety Committee of Louisiana and the Committee on Highway Engineering Curricula of the educational division of the American Road Builders Association.

Under Professor Fox's tenure as head of the Civil Engineering Department, the growth of graduate work has been significant from an average of five to an average of fifteen students per year. Several research projects have been recently completed which have proved beneficial to industry and to instruction. The Civil Engineering Department enjoys a reputation as one of the best undergraduate schools in the South.

While at Tulane, Professor Fox taught courses in highway and railroad engineering, route and plane surveying. Since 1946 Colonel Fox was in charge of the Tulane Summer Survey Camp at Gurley, Louisiana.

During his years at Tulane, Professor Fox has served as engineer for all athletic facilities; designed and installed drainage for Tulane Stadium, tennis courts and other athletic fields; was in charge of the tennis program for many years; served as faculty chairman of athletics; was director of student activities for a year and has had numerous commissions as consulting engineer on special projects throughout the New Orleans area.

He is married to the former Lorena Bates, his inseparable companion in community, university, cultural, sports, military and church life

A Competitive Challenge

By Edward A. McLellan

Tulane, as most major universities, is facing the challenge of mushrooming demands for its services. There are two primary reasons for this demand; first, with the population of our nation rising, many more qualified candidates are seeking a college education, and secondly, the complexity of our civilization requires a greater number of highly educated personnel. More knowledge is needed just to understand, and if our progress is to continue, some "super training" will be essential. Yet, the universities still have the same time limits in which to equip students to be contributing members of our modern society. **It is a real job.**

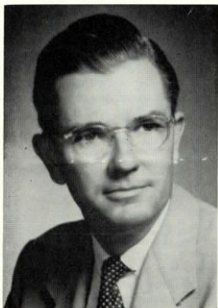
Tulane's Board of Administrators and its Faculty, are doing all in their power to meet the challenge, but they need and deserve the active support of all alumni. Our special interest is, of course, the College of Engineering. It, perhaps more than any other College, has to improve its methods, techniques and performance, in order to better equip its graduates to cope with the many and varied technological problems of today. It must also prepare them to be the discoverers and the conquerors of the problems of tomorrow.

The Society of Tulane Engineers (STE) has as its main purpose the promotion and maintenance of the interest of the engineering alumni in their College, and in Tulane. We do this by disseminating information on the College and its graduates through periodic letters, this publication, and our annual meeting. By acting as liaison between you and Dean Johnson and his staff, we hope to further the aims of the Engineering School. I am quite sure that Dean Johnson values and appreciates the advice and help given him by the STE.

The help we can offer our school is limited only by our numbers. Yet, out of 2700 alumni of the College of Engineering only 500, or less than

of New Orleans. His two sons, Hewitt Bates and William McNair have both achieved distinction in their professions—petroleum geology and teaching business administration.

The Tulane family will miss Colonel and Mrs. Fox who have participated so actively in its many functions.



EDWARD A. McLELLAN

25%, annually join the STE. The STE has done some good for the Engineering School; we would like to do more, and in so doing feel that we had the **ACTIVE support** of all 2700. The more support we receive, the more benefits our school gains.

We would like to hear from you—what you are doing, what you would like the College of Engineering to do, what suggestions you might have for the STE. The College of Engineering needs your interest and support to maintain and to improve its standing among universities. It is a competitive world.

FRESHMAN (Cont. from Page 2)

any engineering" during the first year or two in college. The course attempts to provide immediate stimulation and motivation for engineering students by calling on them to evaluate situations as professional engineers during the first year of college.

The topics in the course include the following:

- Estimating Costs and Quantities
- Geometry in Engineering
- Derivations
- Dimensions and Units
- Measurement and Accuracy
- Energy in General
- Potential and Kinetic Energy
- Internal Energy
- Electric and Magnetic Work
- The Engineer in Practice
- Submitting Problems and Writing Reports

Society of Tulane Engineers Gift Used By School

During the past three years, the Executive Committee of the Society of Tulane Engineers has made a cash contribution from surplus funds to the School of Engineering. These contributions have been unrestricted and at the disposal of the Dean and an advisory committee to use for special purposes. The total has amounted to \$1100.

Part of the funds have been used for three purposes during the past two years. The Society graciously presented the School of Engineering with the portrait of Dean Emeritus James Marshall Robert in October 1957. Dean Robert's family was present for the occasion and was highly pleased with the portrait. Since the family was so interested in this portrait, it was deemed appropriate to make a gift to them of several color photographs of it. A small portion of the funds was used for this purpose.

Another portion of the funds was used this year to provide an ample number of large bulletin boards in the hallways for student use. The lack of such facilities has long been a pressing problem, especially at the times of student elections for class officers, student body officers, and such.

The funds were used for a third purpose this fall to provide modest payments to several tutors who participated in an experimental study hall for freshman engineering students. The faculty committee on teaching methods and creative teaching headed by Assistant Dean John L. Martinez conceived the idea of having a study hall each Friday afternoon. Freshman students could volunteer to take advantage of the tutorial services which were provided but having once volunteered, were required to come each week. This was done in order to obtain data on the performance of students who attended this study hall as compared with the performance of students of similar abilities who did not attend. Two graduates students in engineering and one in chemistry were available all afternoon to answer questions and guide students through difficulties in any or all of their freshman engineering courses. It is interesting to note that the abilities of the students who volunteered for the study hall ranged from very low to quite high. All of the students expressed the opinion that this assistance had been of great value to them.

From the Mail Bag—

Darien, Conn.
March 22, 1959

Dear John (Vogt):

Data card was not enclosed in McLellan's memo of March 9 so don't know just what information was wanted. Suffice to say wife Marian, son Pete (10), daughter Deanna (17), and myself are all "fat" and happy. Deanna will enter college in the fall—time flies. Accidentally bumped into George F. Cramer, my Math prof. at Tulane, and Roy R. Bastian, classmate (1938). Both reside in Darien—small world.

Regards
/s/ Walt Raarup

Santa Barbara Yachts, Inc.
230 Hot Springs Road
Santa Barbara, California
April 1, 1959

Dear Mr. Markel:
I have noticed in the letter of March 9 from the Tulane Engineers that you are interested in some information regarding out-of-town alumni.

This is just a note to advise that my son, John L. Hooper, Tulane B. S. in Chemistry '54, and myself, Tulane B. E. in Chemical Engineering '29, have combined our efforts and are custom building yachts in our Santa Barbara shipyard. At the present time we have a 46-foot ketch and a 38-foot Diesel cruiser, both designed by Edwin Monk, under construction.

Best regards.

Very truly yours,
/s/ A. J. Hooper

April 8, 1959

For what it's worth—

I am now Assistant Chief of the River Control Branch of the Tennessee Valley Authority located in Knoxville, Tenn.

Hope there will be a 25th anniversary celebration for the Class of 1934 this year. If so, I shall try to make it with my family: two daughters, 16 and 13 years, and of course, my wife.

Received my M. S. in C. E. from University of Tennessee in 1951. Made Phi Kappa Phi.

/s/ Alfred J. Cooper
Class of 1934

April 10, 1959

Dear Henry:

This rebel engineer has ended up in yankee land. After nine years in the Chicago area and three years in the Eastern Pennsylvania bailiwick I'm almost a D. Y. myself—I guess!

I work as Sales Engineer for Rietz Manufacturing Company (and have for 7 years now). Just recently was licensed as Professional Engineer in Pennsylvania. The game of properly applying equipment in the process industries is an exciting one.

Perhaps you could pass along names of any other Tulane engineers of vintage '39-'46 up here in the Phil-Wilmington area. I travel a good deal and would enjoy meeting them.

Yours very truly,
/s/ Robson B. Dunwoody
Chem. Eng.—'43

P. O. Box 690
West Chester, Pa.

Editor, the Tulane Engineer:

I am employed as Electrical Engineer for the Panama Canal Company at Balboa, Canal Zone since December 1939.

My present assignment is Area Engineer in charge of field inspection for conversion of the electrical equipment of the Canal Zone from 25 to 60 cycle electrical current. Largest item being converted now is the Pacific Locks (located at Miraflores and Pedro Miguel).

Will visit my brother, Carl, Tulane graduate of 1940, during the months of August and October, 1959. Hope to visit Tulane during that time.

/s/ Earl O. Dailey
Mech.-Elec. Grad—1932

Box 1369
Balboa, Canal Zone

SOCIETY OF TULANE ENGINEERS

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