

WSSF Dance Saturday Nite

THE TECHNICIAN

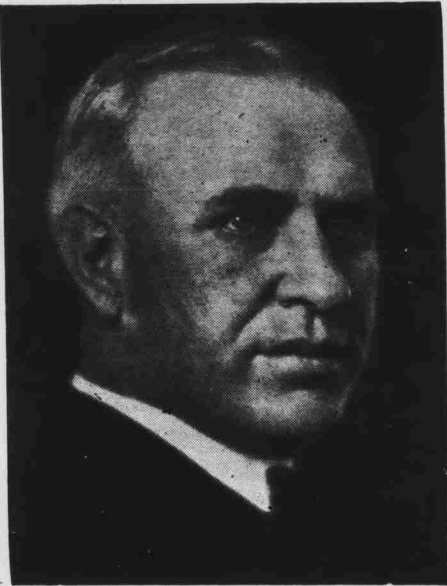
Still Time To Give To WSSF

of NORTH CAROLINA STATE COLLEGE

STATE COLLEGE STATION, RALEIGH, N. C., FEBRUARY 7, 1947

Offices: 10 and 11 Tompkins Hall

A Great Loss to the World



O. MAX GARDNER

The world was shocked and saddened yesterday morning at the death of North Carolina's greatest statesman, Ambassador to England and former Governor of North Carolina, O. Max Gardner.

Poll Results Favor "No-Student" Game

By DAVE FRANKLIN

W. L. Woodall, Chairman of the Student Government Memorial Tower committee announced Wednesday that two thousand four hundred and seventeen students voted in the poll taken Monday and Tuesday to determine whether or not State students would forego their right to see the Davidson-State basketball game.

Proceeds from the sale of tickets for the game will be used to help complete the Tower, which is a memorial to the veterans of the first World War.

Mr. Woodall said that plans for the sale of tickets have not been completed yet, but that complete plans for the sale of the tickets would be announced in the near future.

Missionary Worker To Be At College Sunday

Miss Lorena Kelly, just returned from ten years of missionary work in the Belgian Congo, will be on the State College campus to speak at the regular meeting of the Wesley Fellowship this Sunday.

Miss Kelly will speak at the Sunday morning service of the Fairmont Methodist Church. She will be on the State College campus Monday in John Hamm's office from 9:30 a. m. until 5:00 p. m. for personal interviews and individual conferences.

Miss Kelly finished at the Women's College in 1926 and did church work in this country until 1935, and then went to Africa as a missionary, returning only recently.

Student Federalist Speaks Here Tonight Unusual Demonstration Slated For Next Week

Famous Authority On Electronics to Speak At Pullen Thursday

Dr. J. O. Perrine, assistant vice-president of the American Telephone and Telegraph Company, and widely recognized authority on electronics, will deliver a demonstration-lecture, "Radar and Microwaves," in Pullen Hall, Thursday, February 13, at 8 p. m.

The principle theme of Dr. Perrine's lecture will be the fundamentals, techniques and apparatus of electric wave phenomena utilized in electrical communication. Electric waves are the carriers of information in telegraph telephone and television systems on coaxial cable, broad-band telephonic lines for radio broadcasting networks, point-to-point radio telephone systems over land and sea, and radio relay systems as planned between New York and Boston.

Varying Wave Lengths A discussion of electric waves varying from 15,000 meters as used in transoceanic radio telegraphy to the wavelenghts of today measured in centimeters for telegraphy, telephony and radar systems will be presented.

Both the physical concepts of waves in acoustics and the mechanical concepts of waves will be illustrated mechanically on specially designed demonstration equipment. Following the visualization of wave concepts by standing waves along a 20-foot piece of rope, a standing electric wave wire system known as a Lecher system will be shown.

The Lecher wire system makes the radio wave system readily appreciable. Micro-radiation waves of three centimeters (10,000 million cycles per second) will be generated. The phenomena of reflection, polarization and absorption will be demonstrated. Wavelength will be measured by means of standing waves in air as revealed by slender neon tubes.

In connection with the demonstration of the properties of microwaves, there will be presented a Radio Waves

WSSF Tops Busy Week With Dance Here Tomorrow Nite

Calling State College Student WSSF WSSF CQ CQ. Saturday night The State College World Student Service Fund is presenting a free dance for State College students, patterned after the popular Y dances of last fall.

Dick Inshour, Special Events Chairman announced that many new and novel ideas had been planned and that for the first time at the dances many games would be available for those who don't care to dance the whole night through or gaze at the Seaboard's trains from the little steel perch on west side of the gym.

Refreshments will be available, Dick said.

Tickets are given out at the Y desk. Admission is free and all State College Students are cordially invited, Pat McDonald, WSSF Chairman said Tuesday.

This is the first time that Rex Hospital student nurses have attended a dance in force. The presence of the Rex Hospital student nurses is made possible through the courtesy and cooperation of the Y's Professor of Campology, Charlie McAdams.

The Dance will begin at 8 and end about 11:30. Music will be furnished by Claude Taylor and his Musical Disk.

Floyd Witten, Treasurer of the WSSF drive reported on Tuesday night that the drive was being momentarily delayed by the late arrival of many of the subsistence checks, but that generally speaking there were good indications.

A few people have commented about the "high goal," but it was learned this past week end that Davidson which has 900 students had a goal of \$4500, and raised \$5,500.

Student Assembly Journal Shows Significant Results

The North Carolina Student Legislative Assembly has published the proceedings of its 1946 session. The journal, a twenty-four page booklet, contains a brief summary of all the business of both houses and the joint sessions. It lists all representatives, giving their college and the course of their major study.

The Student Legislature, composed of delegates from twenty-four colleges, met December 6 and 7 last year in the state capital. A copy of the journal has been sent to each representative and senator in the General Assembly and to the governor of North Carolina and other interested officials in the state government.

Significant Results The most significant result of the Student Legislature is that the session has presented convincing proof that the races can cooperate to build a better Southland. Only through closer understanding among all men, regardless of creed or color, can the best progress be made.

Many of the bills passed by the Student Assembly indicate the possible trend of future events. Some of the more important bills and resolutions are summarized in the following paragraphs. It was resolved that student stores operated by the three units

Sophomores The first 1947 meeting of the Sophomore Class will be held Tuesday, February 11, in Pullen Hall at 12:15.

The purpose of this meeting is to complete plans for the annual Sophomore Dance. All class members are urged to attend this important meeting.

Col. McMillin Retires; Honored at Ceremony

The State College ROTC battalion held a special drill and military review to honor Col. Douglas N. McMillin, who is leaving the school after a three and one-half-year tenure here at the college.

Colonel McMillin assumed the duties as commanding officer of the ROTC Department of Military Science and Tactics in August, 1943. During his stay here during the war years Col. McMillin also commanded the soldiers of the Army Specialized Training Program, the Air Corps, and the ROTC who were in training at State College.

A graduate of Virginia Military Institute, Colonel McMillin served on the Mexican border in 1916-17 and spent 10 months in France as captain of a machine-gun company in the 30th Division during World War I. Before coming to State College, he served as commanding officer of the Army's medical unit at Duke University and had previously spent six years as head of the ROTC program in Chattanooga high school.

His last official act was to award medals to three State College ROTC students in recognition of their achievements as members of the college's championship rifle team of 1946. The team won first place honors in the Fourth Service Command and won the coveted William Randolph Hearst Trophy. The

Engineers Plan for Gala Festivities Next Week End; Les Elgart To Play

Les Elgart, one of the most promising talents in the business world, will bring his aggregation to Frank Thompson gym next week-end to furnish music for the Annual Engineers Ball, which is being sponsored by the Engineers Council, it was announced by "Patches" Meares, president of the council.

Tickets were distributed last Monday and Tuesday on a "first come, first serve" basis and lines began forming almost two hours before the duca was scheduled to be available, according to Bill Beane, chairman of the ticket committee.

Although it will be impossible to allow everyone to attend all three dances the tickets were distributed to the various classes in a fair and square manner, allowing every engineering student admission to at least one of the dances. Only seniors will be allowed to attend all three dances.

Student Assembly Journal Shows Significant Results

The compulsory school attendance age was raised to eighteen, or until graduation from an accredited high school.

Delegates from State College was represented in the Senate by James R. Fowler, parliamentarian, Jack Fiesler, and Phil Upchurch. Representatives from State were Earnest Colton, W. J. Daniel, Dick Duncan, O. Max Gardner, Jr., Tom Garrison, Al Green, U. W. Henderson, Douglas House, John M. Pharr, Leroy Roper and Stanley Swartz.

The Social Functions Committee will meet Saturday, February 8, at 12 o'clock in Room 106 People Hall to consider requests for Social Functions and to work out a social calendar for the Spring Term 1946-1947.

Connecticut Professor Is Appointed M. E. Dept. Head

Professor Karl P. Hanson, a member of the faculty of the University of Connecticut, has accepted an appointment as head of the Department of Mechanical Engineering, it was announced by Dean Lampe a short time ago. The appointment becomes effective July 1.

The new head of the M. E. Department will succeed Prof. L. L. Vaughan, who has requested retirement after many years service. Prof. Vaughan will, however, continue to teach several courses and will assume the duties of director of instruction in the School of Engineering, working in association with Dean Lampe.

"After many years of outstanding and conscientious service, Professor Vaughan has now requested the administration of State College to relieve him of the responsibility of directing the work of the Mechanical Engineering Department, the largest engineering department at State College.

Professor Hanson was educated in the public and technical schools of Wisconsin, and later obtained his Bachelor's degree in Mechanical Engineering at the University of Wisconsin. After a period in education and industry, he returned to the University of Michigan and carried on further graduate study. He obtained a Master of Science degree in Mechanical Engineering as a result of advanced work in the field of power house design and heat balance calculations.

"The new State College faculty member holds memberships in the American Society of Mechanical Engineers, the Society of Automotive Engineers, and the American Society of Engineering Education. He is a member of the honorary research fraternity of Sigma Xi, and a member of the Hartford Engineers Club.

"In 1930 he married the former Miss Eleanor M. Schanel of Wisconsin, and they have one child, Meryl Eda, age 7. The Hansons are members of the Congregational Church."

Industrial Engineers Form New Society

At a meeting held recently Industrial Engineering students organized The Society of Industrial Engineers of N. C. State College.

The purpose of the organization is to promote the interest of Industrial Engineering at State. Meetings will be held twice a month. The club intends to sponsor speakers, papers, and social gatherings for the benefit of its members.

The new society replaces the old Society for the Advancement of Management which was active on the campus prior to the war. Membership is limited to students registered in Industrial Engineering.

Officers of the fledgling society are: president, Raymond R. Ellis; vice president, John M. Council, Jr.; secretary, James T. Fulghum; treasurer, Edward K. Lovelace. Mr. Ronald L. Wiggett to acting head of I. E., was elected the faculty advisor.

Nation Wide Youth Movement Is Rapidly Gaining Momentum

Students will have the opportunity to hear Colgate Prentice, twenty-two year old president of the Student Federalist, Incorporated speak on the necessity for world government Friday evening at 7:30 in the YMCA Auditorium. Prentice is being sponsored by the Canterbury Club, the Hillel Foundation, the Aquanias Club, the Wesley Foundation, The Baptist Student Union, The Westminster Fellowship for Students, the YMCA, the International Relations Club, with the cooperation of the History Department, and under the auspices of the Public Lectures Committee.

Prentice, who dropped out of Swarthmore College for a term so that he could address as many college students as possible, has already toured much of the country. Beginning in New York in October he has covered more than 5,000 miles in New England, Virginia, and other places in addition to a trip to the West Coast and back. Approximately 24,000 students have heard him speak since he began his tour.

Prentice is a Vet. During the war, Prentice, who hails from Buffalo, N. Y., and Richmond, Virginia, was a fire control operator on a B-29. He flew 19 missions with the 20th Air Force in the Pacific, and received the Air Medal with two Oak Leaf Clusters. The Student Federalist movement began sometime back, but Prentice was elected President at a meeting in Chicago last September. Student Federalists is a non-partisan student movement, organized and directed by students. It is not affiliated with any group, party or organization. The one aim of its 5,000 members, ages 15 to 25, is world government in our time. It does not believe that the present United Nations organization can prevent another war.

Students Federalists want a world (Continued on Page 6)

Pearsall Speaks On Future of Farming

Improvement of landlord-tenant relationships will do much to raise North Carolina's per capita farm income, declared Speaker Thomas J. Pearsall of the House of Representatives in an address to the Ag Club last week.

Pearsall explained that if a far-reaching program of advancement is to be made, tenants must work in cooperation with landlords and learn to apply the modern techniques of agriculture.

The legislative speaker declared that tenants who were a party to long-term contracts with their landlords were much more interested in the work and well being of the land.

Future In State The Nash County legislator observed that the formation of a "sense of mutual confidence" was needed among landlords and tenants and if this confidence was formed North Carolina would soon become the top-ranking state in agricultural accomplishments. He noted the long growing season, the fertile soils, and the scientific and educational work of State College as assets to the State's agricultural life.

Speaker Pearsall was introduced by Dr. I. O. Schaub, director of the State College Agricultural Extension Service and former dean of the School of Agriculture.

Ag Club President Guy Jones presided, and Maurice Pickler was in charge of the program.

IFC Get Keys

In accordance with the custom of the College, the Interfraternity Council will present Interfraternity Council Keys to the following Seniors who are members of the IFC.

R. J. Carlton Jones, Alpha Gamma Rho; Alton W. Wilson, Delta Sigma Phi; Samuel T. Gregory, Kappa Alpha; Richard W. Kennison, Kappa Sigma; Austin Sauls, Lambda Chi Alpha; Alton Thomas, Phi Kappa Tau; Jim Johnson, Pi Kappa Phi; Ed G. Sellers, Pi Kappa Phi; Ralph Degen, Sigma Alpha Mu; Charles G. Miller, Sigma Chi; William M. Boylan, Sigma Nu; Jim Boyer, Sigma Phi Epsilon; Hugh A. Williams, Sigma Pi; David H. Hancock, Tau Kappa Epsilon.



Colgate Prentice



PROF. KARL P. HANSON

EDITORIALS

Time For Action

At the last meeting of the Student Council there were many indications that the time has come for action to complete several projects that have been "hanging fire" for months now.

THE TECHNICIAN has patiently attempted to understand the many problems of the administration concurrent with the large enrollment. We have commended the administration for their sincere attempt to carry the load of as many veterans as could possibly enroll here.

There can be no patience, however, with certain attitudes of the administration and college officials and with certain phases of the post-war development of State College.

1. The administration has been slow in setting up an organized and supervised married veterans' housing area. A year has passed since the problem arose, but the college has not yet completed an adequate and desirable housing zone.

2. The Student Council has sponsored the establishment of a barbershop in the YMCA, the placing of trash cans in strategic places to help keep the campus clean, and the clarification and explanation for the "F" rule last fall.

3. No steps have been taken to set up a campus entertainment committee or organization to provide an integrated and far-reaching social and recreational program for the students and faculty of the college.

4. The administration and Faculty Council have failed to indicate to student leaders their desire to help students with their problems. Student opinions and suggestions, presented in the proper manner, have been ignored in some cases.

Other examples of poor planning, inefficiency, lack of clearly defined authority could be noted. Most of these have been pointed out previously, but correction has not been forthcoming in some cases.

The college should immediately undertake a program of internal check-up and clean-up of existing committees, methods, and personnel to insure that we are organized to function as a successful and happy campus community.

A Beautiful Story

The successful outcome of the student poll conducted this week indicates that the student body has true spirit and love for State College. It further proves that the present student body is endowed with the fine qualities of unselfishness and consideration for others.

Nothing that has been done this year, on athletic field or off, has filled our hearts with such pride in our student body as this sacrifice we have all elected to make. If the old spirit of State College has been lacking in the past, no one can claim that it is lacking now.

Nearly everything that has been accomplished here has had to be done the hard way. State College has admittedly and proudly been a poor man's school; no fairy godmother has dropped a million-dollar endowment in our laps; nor has the government of North Carolina laid open her treas-

ures for our development. Truly, it has been a long and difficult climb to the present position we occupy.

Students of State College have always fought the hardest and done the most to make this institution a great and honored place. Many of us have come from farms, economically oppressed for ages and educationally handicapped, yet ready and eager to struggle and fight for a college education and for a more respected place in society.

Yes, installing chimneys in the beautifully Memorial Tower may seem a small thing, but actually it is most significant. We are completing a project students began long years ago, which students have contributed to every year since.

When the chimes ring out next June with our Alma Mater, we shall be hearing a wonderful and beautiful, a challenging story of the spirit of the students of North Carolina State College.

Influence For Good

From the loving example of one family a whole State becomes loving, and from its courtesies the whole State becomes courteous; while from the ambition and perverseness of one man, the whole State may be led to rebellious disorder—such is the nature of influence.

—The Great Learning.

We have it within our power as students of this college and as leaders in society to exert a powerful influence for good. If we display love for our neighbor, if we are courteous and considerate to our associates, that spirit of love and respect exerts a strong influence in the lives of our neighbors and associates.

These facts are the obvious; yet how few of us realize their potency. Are we, in our search for knowledge and truth, overlooking our privilege and responsibility to stand for the things that are decent, for the things that are pure, for the things that are just. Are we selling the principles of righteousness for the standards of our base emotions, regardless of the fact that in so doing we are selling goodness and justice "down the river."

We must wake up! We must realize that the world is on fire with hatred, bigotry, quarrelling, jealousy, and greed. The hope of mankind, the hope of the world lies in our hands. We claim intelligence; we must use that intelligence now as never before, and that use must be for good, for peace, for love of fellowman.

When is the time? Where is the place? The time is now. The place is North Carolina State Campus! Right here we must begin to let the light of tolerance shine forth and permeate our living. Here we must cast our influence to see that love and respect for less fortunates is manifest in every student. It is here that sportsmanship in life as well as sportsmanship in the gym must prevail.

When is the time? Where is the place? The time is now. The place is North Carolina State Campus! Right here we must begin to let the light of tolerance shine forth and permeate our living. Here we must cast our influence to see that love and respect for less fortunates is manifest in every student. It is here that sportsmanship in life as well as sportsmanship in the gym must prevail.

The place to begin is with yourself. Do you respect your next door neighbor when you don't want to study and he does? Are you courteous to your fellowman? Have you contributed to WSSF? Do you contribute to the work of a church? Are you interested in World Government movements? Do you know the social and moral implications of drinking whiskey? Are you concerned that the family in the trailer next to yours has sickness and needs a helping hand? Are you sympathetic to a boy who is finding it hard to readjust mentally? If you are not interested in all these things, how can you hope for a good life for yourself or anyone!

Each of us can and must exert an influence for good.

THE TECHNICIAN

North Carolina State College Published Weekly By the Students

JACK FISLER Editor LEO TULL Business Manager

Member Associated Collegiate Press Distributors of Collegiate Intercollegiate Press Digest

Entered as second-class matter, February 10, 1920, at the post office at Raleigh, North Carolina, under the Act of March 3, 1879.

Campus Wheels



Johnson and Hobson of The Agromeck

By OREN BOYLES

Three weeks ago the TECHNICIAN instituted the column, "Campus Wheels," with the purpose of bringing to its readers sketches of the personalities of students who make things "go" on the State Campus.

We maintain that these two boys have been called more disagreeable names, and that, labeled with any metaphor, they have distinguished themselves as "wheels" of State in view of their accomplishments as students.

Hobson, who is studying "Animal Industry," is also an active member of the Agricultural Club and the Publications Board. Last year he was a member of the Student Government and in 1942 he was one of the leaders of the famous "Livestock Day," which

will be reactivated this year. Curt graduates this June and then plans to return to his home in Booneville, N. C., for a short vacation.

Jim is president of the PIKA, Fraternity and a member of the Publications Board, Alpha Zeta, Golden Chain, Blue Key, Order of 30 and 3, and the Interfraternity Council. Last year he headed the Agricultural Club's powerful political machine which swept Ag School members into power in most of the important campus organizations.

Jim hopes to get his degree in Agronomy next June and then its "back to the farm." He is originally from Scotland Neck.

Jim says the 1947 Agromeck will be an original version with the emphasis on sports. Each student will receive his copy during the last week of the spring term. The editor and his cohorts do not seem to mind the fact that their class work is unfavorably affected by the time they must devote to the yearbook in order to meet the printers' deadline.

OPEN FORUM

Consistency

To the Editor: Consistency is the Sine qua non of any newspaper. Your paper seems to lack this basic quality. The editorial on "Sense of Values" and the contents of the columns in the last issue were incongruous and irreconcilable.

Very truly yours, TOM WINSTON.

Ed Note: Neither, please. A newspaper must allow its columnist a certain degree of freedom of expression. Also, the Technician does not assume responsibility for the expressions and opinions of its columnists. And, incidentally, to all interested, several more editorial columnists are needed to help us air some of the muddled moral, social, and political issues of our day. Any student is eligible to apply.

"Bunch of Cattle"

Dear Editor: Can't something be done to keep spectators in their seats until the end of the basketball games. This milling around the court two minutes before the end of the game reminds me of a bunch of cattle.

Sincerely, Ken Coble

A Clarification

Dear Editor: In writing this letter in order to present the proverbial "other side of the question," with reference to an editorial last week by "J. R. F." The article pertained to the proposed change in dance dates by the Interfraternity Council and the Engineers' Council.

Last term the IFC put in a request to the Social Functions Committee for February 14 and 15 as the Midwinters dance dates, and the Engineers' Council did the same for February 28 and March 1 as the dates for their Ball.

When the contract for Spivak failed to return, the Engineers' dance committee started negotiations for Tony Pastor's orchestra.

Doings of the Campus Government

By WOODY WILLIAMS

After some discussion of the problem of who is going to edit "Doings of Your Campus Government", the council decided that the chairman of the Promotion Committee should be the person to do it. As a result, Yours Truly is filling the column this week and will attempt to get out the "Doings" in the subsequent issues of THE TECHNICIAN.

Who Does What? I'd like to give you a little low-down on the members of the Council and tell which ones are doing a good job and which ones get the most done.

Fred Wagoner is doing a fine job as President. He has the responsibility of keeping the members in line and seeing that the agenda is brought up on a calendar schedule.

efficient job in handling these offices and do quite a bit of talking on the floor. The four chairmen of the Welfare, Investigation, Promotions, and Rules Committees are doing good jobs. These chairmen are respectively W. L. Woodall, Bill Newell, Woody Williams and George Harrell.

To get down to the business at hand, last week we worked on the floor. The four chairmen on their opinion about the forfeiture of tickets to the State-Davidson game.

Trash Cans At last Mr. Morris agreed to obtain some trash cans for the disposal of "Mop-Up" paper cups and other incidental trash.

GLEANINGS

Jest Running On . . .

"Thou shalt not editorialize. This means you, Bringle; and you, Termitte." Thusly spake the editor. This space shall be reserved for funny things, namely the aforementioned writers.

Wants get ahead? Learn the technique. What the ME's work on Fitz Dade. Or at least that is the advice of the latrine line . . . R. R. (Railroad) Ellis for president! The I. E.'s have turned out a wheel.

Who's them good looking wimmin that the wolves have been bringing to basketball games on coed tickets. There IS a difference! . . . Order of the day in June, we hope, "Peter, Go Ring Them Bells" . . . Who is this "Her" everybody is writing poems to? Tell us more; we will never fill this blank space this week.

Campus to THE BELL ELECTRIC

ELECTRONICS ENGINEER



The Story of DICK LONGFELLOW MINNESOTA '37

NO small factor in Dick Longfellow's decision to come with General Electric was the knowledge that at G.E. he could continue his studies in electronics engineering.

With this background of intensive study, he was well-prepared to take advantage of the courses available to him at General Electric. His outstanding work during two years of high-frequency studies earned him electronics assignments first, in the Research Laboratory, and later, in 1940, with the Transmitter Division.

Next to schools and the U.S. Government, General Electric employs more college engineering graduates than any other organization.

GENERAL ELECTRIC



An engineer for his University broadcasting station, Dick handled controls during football broadcasts.

Among his present assignments is included work on radio sound equipment, used to determine weather data.



Foresters Slash Customs; Plan to Visit Hoffman Forest Next Term

To Cover 5,000 Acres In Unsettled Forest

By BERT ZUCKERMAN

Establishing a precedent, the Junior Class in Forestry will attend school amid the wilds of Hoffman Forest next semester. The new experiment will try to combine academic schooling with the rigors of practical forestry work.

The curriculum will consist of Dendrology, Forest Protection, Mensuration, Logging, and other courses. In order to make sure that State College foresters' muscles not only are in their brains, a course of involuntary bush-axe wielding has been included. This will come in conjunction with a survey that is to be made of a hitherto unexplored section of the forest. The total area to be covered will be about 5,000 acres.

Students will also get a chance to practice their forest lore on a sawmill located in the forest. This sawmill will be operated and maintained wholly by the students so that they may readily familiarize themselves with the intricacies of a logging chance. Visits will also be made to lumber treating, chemical distillation, veneer and pulp plants in the area.

Wild Country

Because of its swampy terrain, and impenetrable briar patches, the Hoffman Forest has long lay unsettled while areas around it grew and prospered. The area known originally as the White Oak Poson, is one of the oldest land grants in the United States. Its total



Juniors in the School of Forestry are hoping that the above scene is not typical of the things they'll be doing come next term when they go down

to Hoffman Forest for a term's work in practical forestry. City forestry majors are scheduled to get indoctrinated into ways of the woods during this new phase of the Forestry curriculum.

acreage of 80,000 is traversed by only two paths. Of great renown as a public shooting preserve, the Hoffman Forest houses a profusion of animals that would have confounded even Noah, Deer, bear, wildcats, foxes, raccoons, otters, and the picnickers' favorite, the skunk,

abound in large numbers. In addition the area has the dubious distinction of being the habitat for the only four poisonous snakes in the United States—the Rattlesnake, Copperhead, and the little but venomous Coral Snake. Heeding the call for trained men

in the field of Forestry who are not only trained adequately in the field of theory, but also in practical knowledge every all around fracker should know, State College has again taken the lead in changing custom to fit the prevailing need.

SHARPS AND FLATS

By HOWIE KADEN

Last week, the Raleigh Civic Music Association treated its ticket-holders to a performance by mezzo-soprano Blanch Theobom, of the Metropolitan Opera. Unfortunately, I missed it, but from what I heard, Miss Theobom was excellent. The audience was charmed by her renditions of Mozart, Schumann, Verdi, Bartok, Mahler, and Debussy.

A native of Canton, Ohio, Miss Theobom was unknown six years ago. While on a voyage to Sweden, she was "discovered," and since then, her rise has been meteoric. Her debut was made in 1944 at the New York Metropolitan Opera House when she sang the role of Fricka in Wagner's Die Walkure. Her concert Tuesday night, accompanied by her radiant personality, was enjoyed by all.

The Civic Music Association has more concerts coming up in the near future, so all members should keep that program of events handy. They really should not be missed.

On the lighter side of our music, we have an album issued by Capitol Records of the late Jerome Kern's music. I have just heard this album, and I consider it one of the finest Capitol has ever released.

All Americans know and have heard the music of Jerome Kern. His "Smoke Gets In Your Eyes" has become an American classic, played by artists throughout the years. In this album, the King Cole Trio performs it with that ease that has made them Number one in the land. Also included are numbers by Paul Weston, Peggy Lee, Hal Derwin, Johnny Mercer, and a host of other Capitol "names." Look and listen for "All The Things You Are" by Clark Dennis—it's fine.

School Expands Activities In Engineering Research

By WADE McLEAN

Research is a critical and exhaustive investigation or experimentation having for its aim the revision of accepted conclusions, in the light of newly discovered facts. In other words, research is a continuous probe for knowledge of one type or another. As such, it falls into two general classifications. The first of these concerns itself with scientific fundamentals and the search for facts which will furnish proof for scientific theories. The second and most familiar classification deals with the solution to a known problem, as in the case of the industrialist who seeks to eliminate some factor in his manufacturing process which decreases its efficiency.

In the field of research, the South has lagged far behind its Northern neighbors, primarily because of the factor of environment. The South has remained principally an agrarian region, while the North became highly industrialized. As a result the research engineer, finding no facilities either for training or for practical application of his knowledge, traveled North for employment. Recently more and more industry has been moving Southward and has created a demand for research personnel, as well as for laboratories available to small businesses whose financial assets make private research impractical.

With the above facts in mind, the Engineering School of North Carolina State College, in their new program of development and expansion, has made full recognition of the present day needs for research in engineering education and in the State's industrial plants. It is the aim of the college to provide a strong engineering research center for the State and region.

This center will serve as a training ground for research personnel, as well as an engineering research laboratory open primarily to and for North Carolina industry. To this end the Engineering Experiment Station has been reorganized into the present Department of Engineering Research.

This department, headed by Dr. William G. Van Note, is housed in the Aeronautics Building and has its own laboratories and equipment. It works in close cooperation with the various engineering departments of the college, who furnish facilities and skilled technical personnel in the following fields of Engineering: ceramic, chemical, diesel, electrical, geological, mechanical, metallurgical, and sanitary.

Since the department is part of an engineering school, its program must integrate research activity with technical education. To accomplish a balance between the two, the program supports three areas of investigation; 1. The support of fundamental researches in the field of applied sciences; 2. The development of new or improved processes that will provide wider utilization of the natural resources of the State; and 3. To make available to industry, both large and small, complete research services devoted to the solution of technical problems and the development of new products.



JAMES E. DEAS, JR.



ROBERT B. ADAIR



GEORGE M. ARMSTRONG, JR.

Pictured above are three newly-appointed research engineers in the Department of Engineering Research. The department, headed by Dr. W. G. Van Note, contemplates an expanded program of engineering research designed to promote industrial progress in the State and nation. The engineers are: James E. Deas, Jr., of Canton, now working on his Bachelor of Chemical Engineering degree at State College and a member of Golden Chain and Theta Tau, scholastic honor groups; Robert B. Adair of Beaufort, a 1942 graduate of State College in Ceramic Engineering, a former associate engineer of Watson Laboratories at Red Bank, N. J., and an Army veteran; and George M. Armstrong, Jr., of Clemson, S. C., a graduate of the Massachusetts Institute of Technology and a Navy veteran.



WALTER S. GIFFORD
President of the American Telephone and Telegraph Company. Started as a clerk with the Western Electric Company in 1904.



CHESTER I. BARNARD
President of the New Jersey Bell Telephone Company. Started with the Bell System as a clerk in Boston in 1909.



WILLIAM C. BOLENIUS
President of the Wisconsin Telephone Company. First telephone job was in New York City as a traffic inspector in 1921.



ALLERTON F. BROOKS
President of the Southern New England Telephone Company. Started as an engineer's assistant in New Haven in 1911.



VICTOR E. COOLEY
President of the Southwestern Bell Telephone Company. Started his telephone career as a clerk in San Francisco in 1911.



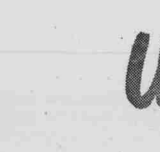
HAL S. DUMAS
President of the Southern Bell Telephone and Telegraph Company. Started as a traffic student in Atlanta in 1911.



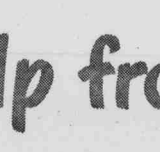
RANDOLPH EILD
President of The Ohio Bell Telephone Company. First telephone job was as a special inspector in New York in 1911.



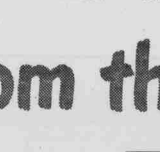
JOE E. HARRELL
President of the New England Telephone and Telegraph Company. Started with Bell System as a clerk in Atlanta in 1913.



RUSSELL J. HOPLEY
President of the Northwestern Bell Telephone Company. Started as collector in Fort Madison, Iowa, in 1915.



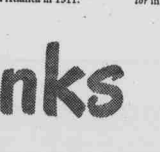
WILLIAM A. HUGHES
President of the Indiana Bell Telephone Company. Started his telephone career as a ground man in Kansas City in 1917.



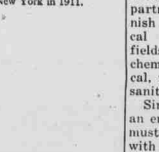
THOMAS N. LACY
President of the Michigan Bell Telephone Company and Potomac Telephone Company. Started as a student engineer, Washington, D. C., in 1921.



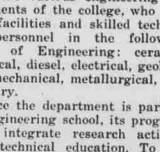
H. RANDOLPH MADDOX
President of The Chesapeake and Potomac Telephone Company. Started, student engineer, Washington, D. C., in 1921.



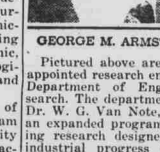
GRAHAM K. MCCORKLE
President of the Illinois Bell Telephone Company. Started with Bell System as an office boy in Eminence, Ky., in 1902.



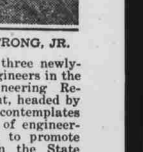
FLOYD P. OGDEN
President of The Mountain States Telephone and Telegraph Company. Started as student clerk in Kansas City in 1911.



PHILIP C. STAPLES
President of The Bell Telephone Company of Pennsylvania. Started with Bell System as salesman in Baltimore in 1904.



MARK R. SULLIVAN
President of The Pacific Telephone and Telegraph Company. Started as a clerk in San Francisco in 1912.



CARL WHITMORE
President of the New York Telephone Company. First Bell System job was in San Francisco as a field man in 1910.

Up from the Ranks

These are presidents of operating telephone companies of the Bell System. They all started at the bottom of the ladder... Nine years ago the Bell System first published an advertisement like this, except that there are now thirteen new faces in the pictures. These new presidents also started at the bottom.

The Bell System aims to keep the opportunity for advancement open to all.

One of its traditions is that its executives come up from the ranks. That has been true of the business for many years and nowhere is it better illustrated than in the careers of the men who now serve as presidents of Bell Telephone Companies. As a group, they have put in 611 years of telephone service, an average of 36 years each.

PRESIDENTS OF BELL TELEPHONE COMPANIES AND THEIR FIRST JOBS

Name	Company	Date	Place of Start	First Pay	First Job
Walter S. Gifford	Amer. Tel. & Tel. Co.	1904	Chicago	\$10 week	Clerk, Payroll Dept.
Chester I. Barnard	New Jersey Bell Tel. Co.	1909	Boston	\$50 month	Clerk
*William C. Bolensius	Wisconsin Tel. Co.	1921	New York City	\$25 week	Traffic Inspector
*Allerton F. Brooks	Southern New England Telephone Company	1911	New Haven	\$12 week	Engineer's Assistant
*Victor E. Cooley	Southwestern Bell Tel. Co.	1911	San Francisco	\$60 month	Clerk
*Hal S. Dumas	Southern Bell Tel. & Tel. Co.	1911	Atlanta	\$50 month	Traffic Student
Randolph Eild	Ohio Bell Tel. Co.	1911	New York City	\$15 week	Special Inspector
*Joe E. Harrell	New England Tel. & Tel. Co.	1913	Atlanta	\$14 week	Clerk
*Russell J. Hopley	Northwestern Bell Tel. Co.	1915	Fort Madison, Ia.	\$40 month	Collector
*William A. Hughes	Indiana Bell Tel. Co.	1917	Kansas City	\$60 month	Ground Man
*Thomas N. Lacy	Michigan Bell Tel. Co.	1905	Philadelphia	\$10 week	Installer
*H. Randolph Maddox	Chesapeake & Potomac Tel. Co.	1921	Washington, D.C.	\$30 week	Student Engineer
*Graham K. McCorkle	Illinois Bell Tel. Co.	1902	Eminence, Ky.	\$20 month	Office Boy
*Floyd P. Ogden	Mountain States Tel. & Tel. Co.	1911	Kansas City, Mo.	\$40 month	Student-Clerk
Philip C. Staples	Bell Tel. Co. of Penna.	1904	Baltimore	\$12 week	Salesman
*Mark R. Sullivan	Pacific Tel. & Tel. Co.	1912	San Francisco	\$50 month	Clerk
*Carl Whitmore	New York Tel. Co.	1910	San Francisco	\$65 month	Field Man

*Asterisks indicate new presidents since December, 1937.

BELL TELEPHONE SYSTEM



THOMAS N. LACY
President of the Michigan Bell Telephone Company and Potomac Telephone Company. Started as a student engineer, Washington, D. C., in 1921.



H. RANDOLPH MADDOX
President of The Chesapeake and Potomac Telephone Company. Started, student engineer, Washington, D. C., in 1921.



GRAHAM K. MCCORKLE
President of the Illinois Bell Telephone Company. Started with Bell System as an office boy in Eminence, Ky., in 1902.



FLOYD P. OGDEN
President of The Mountain States Telephone and Telegraph Company. Started as student clerk in Kansas City in 1911.



PHILIP C. STAPLES
President of The Bell Telephone Company of Pennsylvania. Started with Bell System as salesman in Baltimore in 1904.



MARK R. SULLIVAN
President of The Pacific Telephone and Telegraph Company. Started as a clerk in San Francisco in 1912.



CARL WHITMORE
President of the New York Telephone Company. First Bell System job was in San Francisco as a field man in 1910.

WE WILL MEET YOU AT
POWELL & GRIFFIS

- MEATS
- GROCERIES
- VEGETABLES
- CAKE
- MILK
- FRUITS
- CIGARETTES
- CANDIES

NEXT DOOR TO THE
STATE DRUG STORE

2414 Hillsboro Street — Phones—2-2847, 2-2848

WE DELIVER



STEAKS
and
CRISPY FRENCH FRIES
at
PETER PAN RESTAURANT
CHICKEN DINNERS
SHORT ORDERS
SEAFOODS

1207 HILLSBORO — PHONE 7212

TIRES

U. S. ROYAL
HOOD
CENTURY & GULF
600 X 16 \$15.95 plus tax
EATMAN GULF SERVICE

3010 HILLSBORO ST. PHONE 35258



Julien Rattelode
Diamond Rings
Watches
Swank Jewelry

For Better Jewelry
For Better Values
For Better Service

See JULIEN at
BOSSÉ JEWELERS

107 Fayetteville St.

Special Speedy Repair Service
To State Students

STATE DRUG STORE

DROP IN FOR
THAT SNACK
BETWEEN CLASS

WE HAVE A
WELL ROUNDED
DRUG STORE

Across From Ag Hill

Crawford's Grapplers Wrestling Into Shape

Crawford Doing Fine Job With New Men Heavies Are Strong

By C. R. PATE

Wrestling has returned to State! After a lapse of four years during which all minor sports were cut down to a minimum, State has burst forth with an array of minor sports that have taken an important part in the limelight of college sports.

The wrestling team here at State, under the excellent eye of Coach Al Crawford, will do much toward adding to our publicity in the field of sports. So far this season State's unexperienced, but fast-learning, grapplers have succumbed to three out of four powerful foes. In the first match of the season State lost to the powerful Middies at Annapolis. Most of the men on the Navy team were experienced wrestlers, while practically all of our men are new to the field, with the exception of big Fred Wagner, who was the only man to win in the Navy Match.

Defeated Maryland

On the trip home, the mat team stopped long enough in Maryland to hand the Old Liners a 21-11 defeat. Next came the all-ready discussed match with the potent bunch at Appalachian, and the close loss also at the hands of defending Conference champions, Carolina.

But despite these setbacks, there has been at least two bright rays of hope in the forms of Fred Wagner and Jim Edwards. Fred hasn't lost a match this year and has won two matches by falls. Jim has won all three of his matches by falls while losing only to the experienced Navy man.

Crawford Knows His Stuff

The State has one of the best coaches available in wrestling. Al Crawford hails from Wilmington, Del. He attended Appalachian and while there was undefeated for a period of two years—quite a remarkable feat in itself. Crawford was the AAU middleweight champion in 1937, 1938, and 1939. In 1936, he tried out for and made the U. S. Olympic team.

A short while thereafter, he met and defeated the Olympic champion and then decided to join a team of top-notch American amateur grapplers on a tour of Europe. In Sweden, where wrestling is the

national sport, Crawford was so great a favorite with the huge crowds that King Gustavus Adolphus awarded him with a silver plaque and proclaimed him the greatest 174-lb. wrestler ever to perform in Sweden.

Team Is Green Now

Coach Crawford has some mighty promising material out for the team this year. With a few more months of practice under their belts, they will be much harder to stop than a freight train. With only a few men with previous experience to begin with, Coach Crawford has moulded a team that is worthy of much praise. All of the men on the team hail from North Carolina.

Coach Crawford refused to comment on the Carolina defeat, but people in the sporting world recognize Carolina as having one of the strongest teams in the Southern Conference, if not the strongest. Crawford expressed his satisfaction at the large turn-out of students and loyal State supporters that came out last Friday night for the Carolina matches. Approximately 2500 people were there to give the mat team a rousing send-off in the first home appearance of the season.

Keep an eye on the wrestling team.

Rifle Team

Students are reminded that membership on the Rifle Team is open to non-ROTC students as well as to those who are enrolled in the ROTC. Anyone interested in joining the team is requested to contact Sgt. Prestridge at the rifle range in the basement of the gymnasium any afternoon from 2:00 until 6:00 or Major Vaughn in room 4, Holiday Hall.

Jobs Open

The TECHNICIAN circulation manager has announced that four paying jobs are now open to students in the circulation department. Halber stated that applicants for the jobs will be interviewed in the TECHNICIAN office from 2-4 o'clock on Monday and Tuesday of next week. All students interested in making 80 cents an hour circulating the TECHNICIAN must report to Halber by Tuesday night.

SWIM STARS



Bill Kelly and Bill Ward, both of Raleigh, are two of State's leaders expected to turn in a great day at the Carolinas AAU tomorrow. Both hold Southern Conference records and are former AAU winners.—Photo by Charles Shuford.

Wolfpack Club Works For Bright Future

By GEORGE HARRELL

"The Wolfpack Club" here at State College has played a major role in bringing State College sports to the forefront in National sports circles.

Many loyal State supporters have witnessed the rise of State teams in the past year with much enthusiasm and satisfaction, but few know the real reasons for the rapid rise of the Red and White to a position to match the high standards that our school has long enjoyed. It is with the idea of preserving this necessary standard of sports that this article is written; to give the students an insight into the workings of this much-needed organization that they will know the obligations and opportunities of all loyal alumni and supporters of N. C. State College.

To Aid Athletes

In word, the Wolfpack Club is an organization set up to sponsor and promote the State College Student Aid Association. The Student Aid Ass'n was organized to give assistance to the worthy athletes who needed aid in finishing their education.

Mr. F. Dewey Cline, Raleigh contractor, is president of the Wolfpack Club. Last August 1, Mr. G. Allan Nelms assumed the position of Field Secretary of the Wolfpack Club. His duties consist mainly of handling the contacting of the alumni and friends of State College to give them the dope on State College sports and to solicit them for donations for the club.

Coaches Interested in Individual

It is certainly true today that

Track Team Set For Big Year With Bumper Squad Of Sixty

Hines Pleased With Progress of Charges

By DICK JONES

"We have the most enthusiastic and promising track team in the school's history this year," says coach Thomas Hines. With a bumper squad of 60 men in uniform, Hines is all smiles over his energetic charges. Although the indoor schedule calls for only one meet, the Southern Invitational Meet at Chapel Hill on March 1, the team is already hard at work. With a nucleus of old men, Hines really plans to put a crack team on the cinders in the spring. The squad has had very little practice thus far this season due to rain. At present State has no indoor facilities, but with the possibility of a one eighth mile indoor track in the new coliseum, this difficulty should vanish in the next year. However, arrangements have been made to use the indoor arena at Chapel Hill in February.

Track Coach



COACH TOM HINES

Andrews Back Iron man, Mike Andrews, will be back this year in the weights. His ailing knee will prevent him from attaining his old form in the sprints and hurdles, although he may bolster the 440 event. J. C. Jones will be back for the high and low hurdles, and Charles "Flash" Chambers, fastest man on last year's team, will be the dash artist. Landow aids training in the sprints. Ransberry, Bodenheimer and Graham Thompson will run the middle distances. Jim Adams and Claude

Davis will trudge the marathons. Jim Barber and Whitehurst look good in the broad jump. Rufus and Harry Dalton will vie for the 880 and mile positions, and Skinner will run the 440 as last year. In the pole vault, Bob McNeil and Jim Blue from last year's squad, will again be back.

New men out who show promise are Cheatham and Wilson, sprinters; Kluege, Montgomery, and Lambert, middle distances; Mashburn, Ormins, Townsend, and Dubow will run the mile and two mile. Dubow and Montgomery are veterans of the cross country squad. Watts is out in the javelin department; Dostanko, weights; Cade, pole vault; Pickett, high jump.

Intramurals

By NEVIN DEVAULT

North Watauga won its second game of the year by defeating 3rd Syme 19 to 15. Dick Mahone led his team to victory and seemed to be the stabilizing influence on a team, which at times, was very erratic. Mahone scored 7 points, six of them coming in the last half when points were badly needed. However, A. B. Mackie, of 3rd Syme was high scorer with 10 points.

With Gooch scoring 7 points, 1st Syme swamped Bachelors 21 to 8. 1st Syme held the upper hand all the way and was never pushed. 3rd Turlington edged out 3rd Beeton 17 to 15. Feldman scored 7 points for the winners.

Only two fraternity games were scheduled last week. The PIKAs kept right on rolling with a 21 to 14 victory over Sigma Chi. Steen scored 8 points for the PIKAs. In the last game, Pi Kappa Phi squeezed out a 16 to 15 win over TKE. Bouldin and Camp, of TKE, and Fox, of Pi Kappa Phi, all scored 5 points.

Pack and Terrors contribute to the football team has contributed "true toe" Jim Byrly for the weights and Ogden Smith and Gordon Goodman for field events. The basketball squad donates Negley, Dickey, Hahn, Sloan and Stein.

Coach Hines commented that in past years the team has been weakest in the middle distances, but that this situation should definitely improve this year. Hines also sends a message to all men who have track ability to come out. Every event is still wide open and with the season close at hand, it is essential that these men come out at once to get in shape. Only one week from Spring term registration, the first meet is scheduled. Time trials have not yet begun, but will begin during the coming week.

Casey to Assist Hines Coach Willis Casey of the swimming team will assist Hines as soon as the 'Merman' complete their schedule. He will handle the hurdlers and sprinters.

A very unofficial track schedule was available at the time of this writing. Only a meet with Virginia is confirmed. At present, meets are tentative with Wake Forest, Davidson, South Carolina, Clemson, and V. M. I. In addition to these the cinder eaters will enter the A.A.U. and the Southern Conference Meet. Coach Hines is now compiling records of past meets here at State and in each event he is giving his boys something to shoot at. As a parting word, Hines says, "Come on out, boys, the air is fine and the cinders are dry."

A Thought To Her

In vain craved I your mail today, My heart is full, but sad; The skies with joy in azure splay, But mine in gray are clad.

You are so near and yet so far, And every note you write Spreads sunshine on my world bizarre, And fans my love's delight.

—Max Halber

"Sometimes we ain't so very hot, Just when we miss an easy shot. We've played the games the best we could, We ain't the best, But we're darn good."

YEAH, YA ARE! BEAT CAROLINA

POWELL & GRIFFIS

Special Offer For N. C. State Students
Genuine 8" x 10"
REGULAR \$5.00 Goldtone Portrait FOR ONLY \$2.00
SECURE COUPON FROM CAMPUS REPRESENTATIVES

JACK CHADWICK
6 Enterprise St.
Phone — 4788

K. B. SEXTON
312 Syme Hall
Phone — 9150

REMBRANDT STUDIO

Only One Offer Per Customer — Open 10 a.m. to 6 p.m.
W. H. EVANS, Manager
Under New Management And Ownership
Capitol Club Building Phone — 2-2574

OPEN AT 9:00 A.M.—DROP IN BETWEEN CLASSES
GOOD PIN-BOYS ALL DAY

Every One Goes To

MANMUR BOWLING CENTER

AIR-CONDITIONED

20 CENTENNIAL LANES

2512 HILLSBORO ST. — JUST ACROSS CAMPUS

SODA SHOP

RESTAURANT

"LET'S GO TO MANMUR"



The Flavor's All Yours...

when you smoke PHILIP MORRIS!

CLEAN, FRESH, PURE America's FINEST Cigarette!

First smoke in the morning or last one at night—the flavor's ALL yours, when you smoke PHILIP MORRIS! And here's why...

There's an important difference in PHILIP MORRIS manufacture that makes PHILIP MORRIS taste better—smoke better—because it lets the FULL FLAVOR of the world's finest tobaccos come through for your complete enjoyment—clean, fresh, pure!

Try PHILIP MORRIS—you, too, will agree that PHILIP MORRIS is America's FINEST Cigarette!

NO OTHER CIGARETTE CAN MAKE THIS STATEMENT!
Of all the leading cigarettes, PHILIP MORRIS is the only cigarette with an exclusive difference in manufacture—recognized by eminent medical authorities as being to the advantage of those who smoke!

CALL FOR PHILIP MORRIS ALWAYS BETTER... BETTER ALL WAYS



By GEORGE HARRELL

My deep appreciation to Horace "Hosse" Taylor for drawing such a swell column head for me. Thanks Horace.—Harrell is on the left.

Football Rules Change

In a recent meeting of the rules committee of the National Collegiate Athletic Council in Kerrville, Texas, at least two major changes were made. The first one was a liberalization of the substitution rule where by each team may send in a player while the ball is dead although time is still in. This will meet with much approval in Southern Conference circles, I daresay.

The second and more important one as far as this region is concerned is the barring of the so-called running shift by ruling that a shift play which simulates a regular play will be penalized as a false start. It's about time someone put a stop to Carolina's getting so much "free yardage" by trickery. All last year there was much bitter feeling toward the Tar Heels about the use of it. Wonder what they will think of next at Carolina?

At the meeting of the Raleigh Touchdown Club last Monday night, Herman Hickman, former line coach at State and now line coach at West Point, was the principal speaker. Beattie Feathers and his Wolf-pens were honored guests. At the same meeting, Taylor "Bucket of Blood" Moser was awarded the Ambassador Theater award by virtue of being voted the most valuable player of the 1946 team by his team mates. They made a notable choice. Congratulations Taylor.

The Fieldhouse Wolves have scheduled a game with the fieldhouse at Duke for a game on Feb. 18, as a preliminary game to the State-Duke feature. How nice, to knock them both off the same night. So far, no game has been arranged with the Carolina Grid-ders. The reason; they won't play. Wonder why!

Concerning Publicity Man

Many students are still wondering what ever became of the sports publicity man that we were supposed to get. To give the full details on what happened would entail much detailed explanation, but I can say that Mr. Von Glahn and other athletic officials had two men on the string but lost them due to circumstances beyond their control. They are still working diligently, trying to get someone else. To be sure, no one knows the importance of such a man more than Mr. Von Glahn and the athletic officials. Rest assured that if it is humanly possible, we will have an athletic publicity man before long.

Congratulations to Art "Crash" Davis. Art won the welterweight title of the senior division in the Annual Eastern Carolina Golden Gloves Tournament last Saturday night. His title winning fight was one of the best in the tourney. He was also one of the top favorites of the fans.

I regret to report that the intramural front editor is leaving the staff as far as that column is concerned. Nevin Deyvault has been doing it a fine job with the intramurals, but because of 21 hours he must give it up. He will continue, however, to write a feature now and then. That means that there is no longer a writer for the intramural front. Any interested sports writers that want to continue to have a good sports page, please drop around to the TECHNICIAN office at 6:00 P. M. Monday night or anytime Tuesday night. Do you or do you not want the intramural front to continue?
P. S. Feb. 18 isn't far off.

Grapplers Lose

State's hopes for garnering the Southern Conference wrestling crown received a severe blow last Friday as Coach Crawford's scrappy, but inexperienced grapplers finally bowed to the superior "know how" of the Carolina matmen, 17-13. A crowd of nearly three thousand was on hand for the matches; one of the few chances that the public will have to witness a sports event of any sort in the Frank Thompson gym.

route over Max Warren after thirty-two seconds of the third period.

From the crowd's viewpoint, the most exciting match had State's Don Troxler paired off against Oscar Gupton in the 165 pound class. Troxler, managed to keep his two-point win by a very small margin of points after Troxler seemed to tire.

T. A. Hearn, the Carolina Co-captain, managed to keep his two-year record intact by gaining a decision over the Terrors' 136 pound Ben Lewis.

Carolina's Tar Heels got off to a flying start, winning four of the first five matches; but the State grapplers, in the heavier brackets, came back strongly, scoring two quick falls. Fred Wagoner turned in another stellar performance, pinning John Stoifoff in the short time of one minute and two seconds. Jimmy Edwards who has been doing fine work in the 175 pound division, pinned Bill Kemp after a minute and thirty-five seconds. Zirple of Carolina scored the Tar Heel's lone victory via the fall

Phone 3-1274
JACK'S TAILOR SHOP
Repair and Remodel
FUR COATS
All Kinds of Repairing
380 S. Salisbury St. Raleigh

A. W. GHOLSON, JEWELER
WATCH INSPECTOR
For Seaboard, Southern and Norfolk Southern Railways
137 S. SALISBURY ST.
DIAL 8804 RALEIGH, N. C.

CAPITOL
Friday and Saturday
On Screen—*"Tommy Little & His Sammie Rangers"*
On Screen—*"Song of Sierra"* with Jimmy Welsky
Chapter No. 1—*"Hop Harrigan"*
Last Chapter—*"The Scarlet Horseman"*
Sunday
"OUTLAW TRIAL"
Bob Steele, Iret Gibson and Chief Thundercloud
Monday and Tuesday
"Last Frontier Uptown"
with Monty Hale and Adina Booth
Wednesday and Thursday
"Strange Love of Martha Ivers"
Barbara Stanwyck and Van Heflin

STATE
Today and Saturday
"SWEETHEART OF SIGMA CHI"
with Elyse Knox and Phil Regan
Slim Galland Trio
Frankie Carle and Orch
Sunday, Monday and Tuesday
"LADIES MAN"
with Eddie Bracken & Virginia Welles

AMBASSADOR
Today and Saturday
Joan Crawford and John Garfield in
"HUMORESQUE"
Sunday, Monday and Tuesday
Gary Cooper and Lilli Palmer in
"Clock and Dagger"
Starts Wednesday, Feb. 12th
"Till the Clouds Roll By"
All Star in Technicolor

a la carte
Food Specialty Shop
--- has the very thing to satisfy your craving for something different in foods...
Fancy baked foods from Donziser's of Chapel Hill. The perfect accompaniment for drinks.
A variety of snacks for between mealtime-eating. Wonderful candies and sweets.
412 Glenwood Ave. Phone 3-4611
Raleigh, N. C.

Terrors Nose Out White Phantoms For 7th Win

By LONNIE WEATHERS

While Dick Dickey delighted the fans with one of the best exhibitions of court play of his young career, 1500 Red Terror fans blasted forth with victory cries that shook the grey walls of Wollen Gymnasium as 4500 Tar Heel boosters saw their beloved White Phantoms fade into the dark shadows of defeat last Saturday night for the first time on their own hardwood this season.

Coming from behind, bettering their own and destroying Carolina's reputation as a last-half "whirlwind", the Red Terrors overtook the boys in blue after nine minutes of the second half had passed into history, soared forth to a substantial lead, saw the Phantoms close the gap with the aid of a rabbit's foot, and culminated the evening's work in a blaze of glory by completely dominating

the play in the overtime period to best the Phantoms by the score of 48-46.

Phantoms Yield

The first half trudged along slowly, each team showing the strain of a top-flight season encounter, with the White Phantoms finally emerging four points better at the half. However, State's hopes suffered a staggering blow after six minutes of play when Eddie Bartels was forced to the sidelines because of a slight strain in his right side. Elongated Bob Hahn replaced Eddie at center for the Terrors and played a remarkable game under the enemy's basket. Hahn has not quite yet mastered the principles of maneuvering on offense but is fastly developing into a star performer and pleases the fans to no end with his antics above the heads of his fellow players.

Carolinas AAU Meet To Be Held Here Tomorrow

By MAC McDUFFIE

The largest mid-season attraction for swimmers, the Carolinas AAU meet, will be held in the Frank Thompson pool tomorrow, with Coach Willis Casey's tank squad acting as host.

The event was held in the Bowman Gray pool at Chapel Hill last year and attracted 12 teams representing almost 200 swimmers. Carolina's Blue Dolphins, then under the direction of Willis and Ralph Casey, won by a large margin.

Relay Feature

The feature of tomorrow's program will be the 300-yard National Junior Relay. The race is open to teams that do not have a former AAU winner, thus eliminating State's regular unit; Bill Despres, back stroke specialist, and Bill Kelly, breaststroke champion,

both have won several titles. Captain Bob Reynolds, who swims anchor man for the relay team, placed second in a previous AAU meet, but is eligible. Coach Casey has not announced the changes in his relay unit, but a couple of unknowns on the State squad will probably fill the vacancies. However, the trio of Despres, Kelly, and Reynolds will be eligible for the regular relay held in conjunction with the meet.

State's Prospects

Running down the line, it appears likely that the State swimmers may take the 400-yard free style relay, with the unit—Kelly, Ward, Despres, Reynolds—that holds the Southern Conference record. Other favored swimmers will be Kelly in the 200-yard breaststroke and Ward in the 50-yard free style. Carolina's divers

ALL FORMS OF INSURANCE
GEORGE F. BALL
BALL AND CO.
304 W. MORGAN ST.
DIAL 7857

Correction
Gold scores of prospective team members may be turned into the Country Club until February 20 instead of February 1 as appeared in last week's TECHNICIAN.

Pitchers—Catchers
All Baseball pitchers and catchers ONLY, will start practice on Monday, Feb. 17. See next weeks issue for time and place. ALL pitchers and catchers who intend to try out for the team this year will report at this time.

WE DON'T—Pick up shoes on the Campus or at the Dormitory
BUT WE DO—Give you the best in workmanship, materials and service
A few steps out of the way, perhaps, but well worth it.
We feature invisible soles on all shoes
GATTIS SHOE SHOP
111 Oberlin Rd. Phone 3-1524

BE ON TIME
For Appointments
Keep Your Watch in Good Running Condition
WE REPAIR
AMERICAN AND SWISS WATCHES

PROMPT SERVICE
ON ALL REPAIRS
ALL WORK GUARANTEED

Weatherman Jewelers
1904 Hillsboro St. "On The Court"

Weatherman Jewelers
1904 Hillsboro St. "On The Court"

PALACE
Friday and Saturday
"GAMBLING DAUGHTERS"
"CORPUS CHRISTI BANDITS"
Double Feature
Sunday, Monday and Tuesday
"HUMORESQUE"
Joan Crawford and John Garfield
Wednesday and Thursday
"CLOAK AND DAGGER"
Gary Cooper and Lilli Palmer

We Serve The Best That Can Be Had
WHERE?
Gran-ma's Donut Shop
Just the other side of Textile Building
at
3005 Hillsboro Street
WHAT?
Hot Donuts Good Coffee Sandwiches Fountain Service
WHEN?
8:00 A.M. to 10:00 P.M.
SPECIALTY
Hot Donuts Good Coffee Good Service
If She Goes To Meredith Meet Her At Gran-ma's



Jack McComas, 72, shoots the winning goal against Carolina. Kohler, 10, stands waiting under the basket but to no avail. Other State players in the picture are; Dickey, 70, and Negley, 82.—Photo by Harry Walcoff.

will rule heavy favorites and all other events will be divided, with no school holding an apparent edge. The outcome of the AAU meet will not affect the conference standings.

JOIN THE RECORD CLUB!
FREE!! One Record With The Purchase Of Any Twelve Records During A Three Month Period.
"Everything for Band and Orchestra"
E. R. POOLE MUSIC COMPANY
110 W. MARTIN ST. RALEIGH, N. C.

Ridgeway's OPTICIAN
COMPLETE EYEGLASS SERVICE
Ground Floor Professional Building.

VARSITY
Saturday
Randolph Scott in
"BADMAN'S TERRITORY"
Sunday and Monday
James Mason
(Star of "The Seventh Veil") in
"HOTEL RESERVE"
Tuesday
"SHE GETS HER MAN"
Wednesday
"THE SCARLET CLAW"
Thursday and Friday
In Technicolor
"CENTENNIAL SUMMER"
Saturday
Cornel Wilde, Linda Darnell and Jeanne Crain

Play refreshed... Have a Coke
DRINK Coca-Cola
BOTTLED UNDER AUTHORITY OF THE COCA-COLA COMPANY BY THE CAPITAL COCA-COLA BOTTLING CO., INC.

LYNN'S SERVICE STATION
Fuel Oil and Kerosene Delivered
With Metered Service
Corner of Morgan and Dawson Streets
Call us Phones 4841 and 9345 For Delivery

BARGAIN! ALL ELECTRIC RECORD PLAYER VIA YOUR RADIO \$20.95 WITH YOUR CHOICE OF \$5 IN RECORDS FREE
JAMES E. THIEM
1st Store of Fayetteville St. Phone 22913 Raleigh

Gran-ma's Donut Shop
Just the other side of Textile Building at 3005 Hillsboro Street
WHAT? Hot Donuts Good Coffee Sandwiches Fountain Service
WHEN? 8:00 A.M. to 10:00 P.M.
SPECIALTY Hot Donuts Good Coffee Good Service
If She Goes To Meredith Meet Her At Gran-ma's

Don't Let Feb. 14th Slip Up On You!
Buy Your Valentines Now
We Have All Types
* * *
WILMONT PHARMACY
Your Rexal Drug Store
3025 Hillsboro St. Phone 31079

Trailwood Talks

By S. N. RICHARDSON

Since most of the students living outside Trailwood are not familiar with the manner in which Trailwood's governing body, the Trailwood Council, functions, we shall give you an idea this week about how it operates. At a recent election the members of this year's council were elected, and the present officials are Charles Peters, Mayor; L. M. Page, Senior Alderman; Mrs. Haskell Edwards, Secretary-Treasurer; Richard C. Davis, Sheriff; S. N. Richardson, Publicity Director; and George Payne, Recreation Director. In addition to the members listed above, the council is also composed of Junior Aldermen chosen from every eight families to represent these families at the regular meetings of the council. A number of committees are usually at work arranging for such things as the Cooperative Store, the future dances and other recreational projects, and a building to be located in Trailwood for a worship center, recreation center and day nursery. It is evident that all the students in Trailwood get an excellent opportunity to take part in their own government in one manner or other. The experience they gain in this will doubtless help them to have a clear idea of the duties and responsibilities of a regular city council.

After a great deal of red tape

CLASSIFIED

Classified (Want Ad) advertisements are payable at the Technician Office, Basement of Tompkins Hall, within seven (7) days after publication. Advertisements must be submitted by 10 P. M. on the Tuesday preceding publication date. Rates: three cents (3c) per word. The Technician assumes responsibility only in case of an error materially lessening the value of an advertisement.

DO YOU WANT your apartment back next fall? Married (childless) law student at U.N.C. desires apartment for next summer. Furnished preferred. Write T. F. Adams, Jr., 209 Grimes Dorm., Chapel Hill, N. C.

FOR SALE: Deluxe 1935 chevrolet coupe. Write Litwack, 1014 Canterbury Rd., Raleigh, or inquire in Eng. Dept., Pullen 8.

Fine's mens SHOP

Fashion Firsts for MEN

"JACKETS"

Plenty of them and in all the new styles. Try one on today.

201 FAYETTEVILLE

and location difficulties, the Trailwood Cooperative Grocery has been incorporated under North Carolina State law and is operating at full capacity. The Board of Directors deserve praise and support upon the completion of such a difficult task. They are W. E. Price, President; J. G. Ball, Vice-President; F. E. Whitfield, Sec.-Treas.; and Gibbs C. Gibbs, H. F. Blackwaad, R. L. Crouch, and Wm. C. Holder. The members of the Coop can now purchase groceries at the store at a considerable saving.

Trailwood's basketball team defeated Second Burlington, 23 to 20 at their last game and is scheduled to meet Second Beeton next week. The date for the engagement will be announced later.

PRENTICE SPEAKS

(Continued from Page 1)

discussion of the reasons for the imperative necessity for the shorter and shorter electric waves in development and use of radar for seeing and measuring angle and distance of enemy targets in war.

Cathode Ray Tube

The "heart" of the radar receiving system, namely the cathode ray tube, will be activated and its measurement of time in micro-seconds will be illustrated. The measurement of time to an accuracy of 3 of a micro-second by a cathode ray tube system was one of the outstanding technical achievements of the radar research and development during the war. This corresponds to a measurement of distance about 15 feet at distances of 50 or more miles.

Dr. Perrine, who is a graduate of Iowa, Michigan and Cornell universities, joined the research department of the American Telephone Company in 1921 and has been associated with them since. His appearance at State College is being sponsored by the Public Lectures Committee of the Engineers' Council. Henry Chestnut serves as chairman of this committee.

Notice

An admission of fifty cents will be charged for the Carolinas' AAU swimming match Saturday night. A person does not have to be a State College student to attend. The proceeds will be used to purchase trophies. Meet will start at 7:30 P. M.

A. I. Ch. E. Meeting

All chemical engineers are urged to attend a meeting of the A. I. Ch. E. in room 113, Winston Hall at 7:30 p. m. Tuesday. The program is on fire control.

ASCE Dinner Banquet

The local chapter of the American Society of Civil Engineers will hold their regular meeting at the Club Bon Air, Tuesday evening, February 11, at 6:30.

The guest speaker will be Dr. Baily, professor of Health and Sanitation at the University of North Carolina. Tickets are on sale in Professor Babcock's office. Price \$1.50 to all active ASCE members.

STUDENT FEDERALIST

(Continued from Page 1)

government build on the principles of human rights, and individual responsibilities.

Movement Gaining Momentum

The World Student Federalist movement has been gaining momentum for the last several years and now has in its ranks nearly every college in the nation. The organization now boasts a newspaper called The Student Federalist besides having campus organizations on many American campuses. Prentice will undoubtedly discuss the possibility of forming a World Federalist club on the State College campus.

The Student Federalist organization has as its motives:

- (1) Stimulate thinking on the urgent need for federal world government.
- (2) Educate our generation in the principles of federalism.
- (3) Find, train, and organize the necessary leaders.
- (4) Support all proposals which embody the minimum essentials of federal world government.

McMILLAN RETIRES

(Continued from Page 1)

members of the team receiving medals are: Benjamin H. Cooke of Frenkinton, Joseph L. Edge of Fayetteville and Benjamin L. Porter of Kelly.

Col. Sam A. Gibson relieved Colonel McMillan as military commandant at the college on August 11, 1946.

CAMPUS GOVT

(Continued from Page 1)

a sign reading, "Keep Your Campus Clean—Sponsored by Student Government." We earnestly hope that this slogan will become a part of student habit now and in the future. In our talk with Chancellor Harrelson last Tuesday (which is becoming a regular and successful meeting) we learned that the administration is also obtaining some Army type trash cans from the War Assets Administration — in fact, some thirty-six of them. We certainly can use them and plan to place them around the campus along with the dozen white ones.

Barber Shop

Incidentally, in our informal talk with the Chancellor, we learned, and in a rather emphatic tone, that the students are going to get that barber shop. Again, don't ask us when; the powers that be can't answer that one. The plan, so it seems, is that the "Mop-Up" is going to provide the shop. It will be placed in the basement of Watauga Hall and will be furnished and equipped by the same organization.

Mr. Ivey still needs the storage space in the "Y" for books and supplies. We hope that haircuts can be held at the same low price they were in the past. If such is the case I shall personally start calling the "Mop-Up" the Student Supply Store in deepest respect.

TENNIS

Expert Restringing

24 Hour Service

•

Strung Rackets—Spaulding Wright & Ditson and Bancraft

•

Top Grade Framer's Accessories

•

Rawling, Spaulding Athletic Equipment

•

JOHNSON-LAMBE CO.

Sporting Goods and Electric Appliances

116-118 S. Salisbury Phone 8848

The Other Side Of The Tracks

By EDWARD G. ROBINSON

The people in the pre-fab village are beginning to wonder when a town meeting will be held to elect officers for our community. I, too, am wondering, because there are over 150 families in the village now and that seems like enough to get the community organization completed. The last report that I received on this matter was that two-thirds of the 350 families that will live in the pre-fabs must be living there before we can hold an election. I don't know how long we will have to wait before two-thirds of the families will move in, but from the looks of things, it will take a long time.

I have been wondering like most people when we are going to get sidewalks and clothes lines. It is a problem to hang clothes in the house, especially when there are children in the family. Some of the people have sidewalks and clothes lines, but the rest of us are neglected citizens.

Maybe the people in the pre-fabs can get some action after their government is completed, but until

Ag Club Hears Mann

The weekly meetings of the Ag Club was held in Withers Hall Tuesday night. The members of the club decided to elect officers for the Livestock Day at the next meeting. Eugene Berryhill, chairman of the Barnwarming Dance

then, what are they going to do? As most of you people know, there is going to be a square dance for the benefit of a nursery for all of the State College students who have children. The date for this dance has been changed from March 15 to March 8. I am hoping that everyone here at State will keep this date open and plan to come to the dance, because there will be fun for everybody and you will be helping a married student at the same time.

Committee, announced that the Barnwarming will be held on March 15.

The program chairman, Alton Wilson, introduced the speaker of the evening, Mr. M. G. Mann, Jr. Mr. Mann spoke on the development of the Farmers Cooperative Exchange (the FCX) and the co-operatives that the FCX operates. He pointed out that the FCX is owned by the farmers which it serves. Mr. Mann told how the FCX is organized and how dividends are paid to the farmer who are members of the FCX.

Notice

If the person that took a light brown leather satchel from the stage in Pullen Hall will please return it to the same spot, no questions will be asked.

STORE HOURS 9:30 to 5:30

Just Arrived

Students' Suits

ALL WOOL

Single Breasted Styles

Tweeds and Novelty Mixtures

The kind of suits that give a fellow confidence and assurance that he is well dressed... in the right clothes. Neat patterns — popular colors. Sizes 34 to 40.

24⁵⁰ 27⁵⁰ 29⁵⁰

NO CHARGE For Alterations

Men's Store—Street Floor

Hudson-Bell

IT'S NEW! It's At Ye Ole Mop-Up

"PRESS-EVER"

TROUSERS HANGER and CREASER

Easy of application

Keeps the press

Stretches wrinkles from cuff

Stretches bagging from knees

For Men's Trousers

For Women's Skirts

Pants and Slacks Hanger and Creaser

Exactly As Pictured **59c**

Here is the quick and simple way of keeping men's trousers and women's pants looking neat and pressed all the time. Just insert the "Press-Ever" hanger into cuffs of the garment and release the spring. Holds fast and keeps the press. Does what no other pants hanger will do. Users pronounce it the best yet. All metal construction.

It's a FREEMAN

What a better alternative

Try this Freeman trail shoe. Its thick, special mountain leather is soft as buckskin but tough as cowhide. This exclusive, easy-fitting "Spring" last gives it the feel of a house slipper in spite of its serviceable heavy gauge sole.

845

Brittains

Du Pont Digest

Items of Interest to Students of Chemistry, Engineering, Physics, and Biology

The "Whitest of White" Pigments from Black Ore

It is a strange fact that the ninth most prevalent element in the earth's crust should have been regarded as "rare" for over a hundred years after its discovery in 1791. But that is the story of titanium, actually more abundant than zinc, copper, lead, tin, and nickel combined. One of the factors that have kept titanium from being better known is the difficulty of handling some of its compounds commercially.

If, as a student, you were to look up the equations for the manufacture of titanium oxide pigment, you might find something like this:

$$FeTiO_3 + 2FeSO_4 \cdot 7H_2O + 3H_2SO_4 \rightarrow TiOSO_4 + 2Fe_2(SO_4)_3 + 21H_2O$$

$$Fe_2(SO_4)_3 + 2H^+ \rightarrow 2FeSO_4 + H_2SO_4$$

$$TiOSO_4 + (x+2)H_2O \rightarrow TiO_2 \cdot xH_2O + 2H_2SO_4$$

$$TiO_2 \cdot xH_2O \rightarrow TiO_2 + xH_2O$$

*—The exact composition of ilmenite varies with the source of the ore.

From these equations, the manufacture of the "whitest of white" pigments from black ilmenite ore appears to be chemically simple and straightforward. However, the processing required to obtain industrial titanium oxide of sufficient brightness, hiding power and fineness is more complicated than one would anticipate.

Controlling a Metastable System

The final product must have a particle size averaging 0.2 microns in radius and varying between 0.1 and 0.5 microns.

Particle Size Distribution of "Whitest of White" Pigment

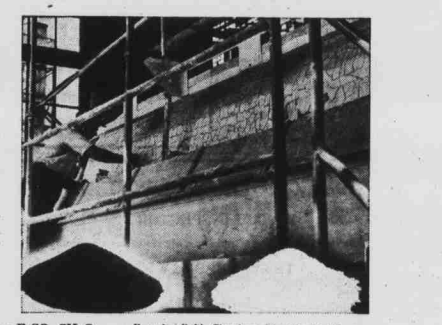
Figure 1: Particle size distribution graph showing curves for different grades of pigment. The x-axis is labeled "RADIUS IN MICRONS OF INDIVIDUAL PARTICLES OF TiO₂" and the y-axis is "FREQUENCY".

Curves shown:

- CURVE 11: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 12: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 13: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 14: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 15: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 16: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 17: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 18: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 19: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 20: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 21: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 22: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 23: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 24: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 25: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 26: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 27: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 28: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 29: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 30: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 31: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 32: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 33: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 34: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 35: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 36: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 37: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 38: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 39: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 40: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 41: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 42: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 43: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 44: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 45: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 46: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 47: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 48: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 49: 1000 BUTLER ENAMEL GRADE TiO₂
- CURVE 50: 1000 BUTLER ENAMEL GRADE TiO₂

Wide Diversity of Research Problems

Long and patient research was necessary to develop the manufacturing techniques now used. Some of the problems demanded technical skill of the highest order from the colloid chemist, the physical chemist, the analyst, the crystallographer, the physicist, and other specially trained men. A wide variety of instruments, such as the petrographic microscope, the electron microscope, x-ray diffraction unit, ultra-centrifuge, and spectrophotometer were used in



Ilmenite (left). Titanium Dioxide (right). Apparatus in the background is a rotary filter.

the work. Finally the metallurgist, the chemical engineer, the mechanical engineer, and the industrial engineer had to design equipment to handle this extremely corrosive system economically.

The manufacture of titanium pigments is another example of the problems that constantly challenge chemists, engineers and other specialists.

For the Answers to Questions College Men ask about working with Du Pont

Write for your copy of "THE DU PONT COMPANY AND THE COLLEGE GRADUATE"

2521 Nemours Building Wilmington 98, Delaware

DU PONT

BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY

E. I. DU PONT DE NEMOURS & CO. (INC.) WILMINGTON 98, DELAWARE

More facts about Du Pont—Listen to "Cavalcade of America," Mondays, 8 P. M. EST, on NBC