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1954 TABLE
I must admit I found the invitation to describe the reactions of a (quote) old grad (unquote) returning to his Alma Mater after twenty-five years as intimidating as complimentary. What small talents for self-preservation I may have developed during my years in the competitive jungle were scarcely those of a literary nature. Reactions, emotions and the like are best left to the man of letters. Even an engineer must have his limitations, as I, for one, do not happen to know any very literary engineers. I am sure there are some. Today there is every kind of an engineer. All I know is that I would like to find one, of necessity a Tech man, and bribe him to ghost write this piece for me. Then, too, I am filled with the fear that the reactions of a (quote) old grad (unquote) no matter how poignantly presented, will prove to be pretty dull fare. I am flattered that the editors think otherwise. Furthermore, I feel strongly that I could turn out a more creditable piece on “The Contribution of the Magnetic Tape to Dimensional Sound,” even though its universal appeal might be questioned.

These “reactions,” now that I take them out and re-examine them, I find to be a pretty conglomerate mixture. . . . Certainly astonishment, approbation and pride were foremost when I was first confronted by the myriad changes which have taken place on the Tech campus, and the impact of these changes was not slight. They brought home very urgently the span of years since graduation. *Moral: Pay homage to your old Alma Mater regularly.*

However, the fact that the occasion of this visit was my twenty-fifth reunion gave me a slight edge over old Rip Van Winkle. So many Van Winkles hobbled down the mountain simultaneously that my hoary head and bent frame were partially eclipsed. Aging is as dependent upon company as misery, and after initial jolts of mutual appraisal all-round, being surrounded by my contemporaries lent a certain comfortable anonymity to the visit. In other words, I was spared the indignity of the pointed finger and the *sotto voce*: “Look at that old codger . . . what’s he hacking around for?” All this enabled me to contemplate the remarkable innovations around me without being overly distracted by the personal. Not that the personal could be entirely disregarded. I recall likening the old class’ mean belt line to that of the campus—both had expanded impressively—both had a very prosperous look.

Prosperity, expansion, progress—these were in evidence everywhere from the hour of my debarkation at Atlanta. Impressive statistics covering this city’s industrial contribution to the nation had been widely circulated over the years, but statistics are like postcards. Neither have much dimension.
It was plain Atlanta had matured astonishingly in the last twenty-five years. It seemed incredible that I had once considered her a minor metropolis. Housing developments, and industrial enterprises covered miles which I recall as having been wilderness.

On being informed that the fabulous horizons in the distance were those of the present campus, I found myself pretty overwhelmed. Had the humble academic environs from which I had sprung undergone such a metamorphosis in only twenty-five years? Or was my conception of twenty-five years somewhat distorted? I tried tossing the phrase “quarter-of-a-century” around a bit but found it depressing. In any case, old Rip Van Winkle had been away longer than he reckoned.

On approaching the Biltmore, I was startled to note that the fraternity houses once nearby had disappeared. Their places had been usurped by various business operations. I was further disturbed to count my own fraternity house amongst the fallen. There is something about the demise of a man’s old fraternity house which approaches closely to emotion. This being the case, I would prefer to refer you to a literary man (an engineer if you can find one). However, you could consult a thesaurus (if you can find one). Under SORROW we have misfortune, trial, blow, grief, distress, affliction. It also suggests you “See adversity and pain.” I would like to proceed to cover adversity and pain as I find this an effortless way of dealing with emotion; however, I dare not court abridgement further.

Saving my strength at this time for more wonders to come, I checked into the Biltmore. It was almost a relief to find the decor and plumbing all untouched save by the years. Here the drummers and the Class of '28 were jockeying for position, and knowing the caliber of my classmates, there was little doubt as to which group would take priority. Let it not be forgotten at this point that the Class of '28 was a class of veterans. The ink barely dry on their parchments, they were tossed into an economic typhoon that wrecked many a seasoned craft. That they had successfully weathered the storm and the arid years that followed was in evidence. These boys had sprung from austere beginnings (three beds to a room, a ration of moonshine now and then, the prospects of a twenty-dollar a week job to the swift). I want to say now emphatically, if wistfully, that plenty, peace and prosperity do not make the engineer. Here at this reunion it was obvious to all, including the hotel management, that the Class of '28 was long accustomed to the best. The aura of success lay over all.

I retired to my room, a gem of antiquity, the better to recover from the rigors of meeting so many old familiar faces and unfamiliar profiles. Stretching out with a tot of the Biltmore’s best beside me, I opened a purloined yearbook of 1908. A glimpse of the past I felt to be appropriate at this time, and this book was as far back as I could go at the moment. For your edification, this yearbook was the first published at Tech. It was a slim, unpretentious volume and contained a bucolic panorama of the 1908 campus. Grouped about a circle sward reminiscent of a country fair grounds were five of the central campus buildings. These and five others not visible here comprised the plant and facility. A picket fence separated this retreat of learn-
ing from the bustle of unpaved Cherry Street's traffic. The horses and consequently the three buggies visible seem to be making concertedly towards this frail barrier and the lush campus fields beyond. In a foreword entitled *A History of Georgia Tech* (of necessity, brief), Mr. Ray C. Werner states, "It is safe to predict that the institution will continue to grow and prosper." Judging from the staggering skyline outside my window, I felt that Mr. Werner had once the makings of a great banker.

Continuing to wade rather than plunge, I turned to the yearbook of '28. Twice the size of its twenty-year-old brother, its brown embossed cover impressed me as having been designed to harmonize with the family album and Bible. I trust it has been treated as reverently. Carefully avoiding the pictures of the graduating class of that year, I looked over the twenty-odd buildings amongst which I had circulated for four years. I was the Boy Scout studiously memorizing familiar landmarks as he enters strange territory. These two yearbooks served to show with startling emphasis how leisurely had been the pace of progress between 1908 and 1928 as compared to that of the last two decades at Tech.

Although I had been informed that over ten million dollars had gone into the new additions at Tech in the past ten years, I was unprepared for the prodigious number and elegance of these structures. As I made my uncertain way towards the campus the impressive display of new facilities everywhere left me almost empty of memories. First I stopped to marvel at a large cluster of imposing dormitories surrounding a baronial building which I was informed was a dining hall. When last seen only one *Brown dormitory* had been in existence. The old dormitory was almost overlooked by me because of the distinguished company around it. I restrained myself from inspecting the present sleeping facilities of the students as I feared that a touch of envy might somewhat sour my admiration. I had been previously forewarned regarding the innovations at Grant Field, since I follow the fortunes of the Yellow Jackets as closely as any "old grad" from season to season. I found these changes even greater than I had anticipated. Here was a fit setting for the perennially excellent gridiron performances Tech alumni and fans anticipate. The gymnasium at the end of the field stands like a majestic monument to the school's athletic prowess. Tech has reason to be proud of these notable additions to her athletic department. On my left I found a large apartment house commanding my attention. This, I was told, was the Burge Apartments. From what I had already seen I was sure there was no housing shortage on the campus.

Had I been blindfolded until the moment I mounted the campus steps at the North Avenue and Fowler Street corner, I would have felt perfectly at home. The old Administration Building in the background, the flagpole, Knowles Dormitory, the Library, the Mathematics Building, the E. E. Building, and old Swann Hall—all were just as they had been. All these old buildings which I had known so intimately in the past served to reassure me that I was back and welcome at my Alma Mater.

I stopped next at the Knowles Dormitory as I had a hankering to see the old room I occupied during 1924. I would find it difficult to analyze the compulsion to return to a scene of so many past discomforts. I'll only admit that I was wallowing in sentiment at this moment and enjoying it. The room of which I speak was a dank, cheerless little cell that slept three by virtue of a single and double decker. This was strictly steerage when the three of us happened to converge there at the same moment. Since it was impossible for the threesome to deckswab and bed-make at the same time, we tossed
With engaging seriousness (this may have been due in part to the presence of my guide). Also, they were considerate enough not to season their sentences too liberally with "sirs."

As I strolled the old by-ways taking in innovations everywhere, I was filled with pride and pleasure. But nothing in my peregrinations had prepared me for five great buildings I was yet to see. My first view of the Civil Engineering, the Architectural, the Textile buildings, the Engineering Experiment Station and the Library really floored me. I had the sensation of one who sees a mirage, so fixed in my mind was the old look of the campus of '28. Each was an architectural gem in itself. I was conscious of a tremendous surge of pride that my college had progressed to these heights. It is achievements like these that renew faith in a world bent on perfecting destruction. So long as such great centers of learning exist, so long will the world be able to rebuild itself no matter what disasters strike. These buildings in themselves seem to symbolize the great needs of mankind in war and in peace. To rebuild, to shelter, and to clothe mankind is the province of the engineer.

I was deeply gratified that I had the opportunity of looking through all five of these structural wonders with the kind and competent guidance of Dean Griffin. Here was the latest and the finest laboratory and research equipment, spacious, ideally lighted and ventilated rooms, commodious lecture halls, and, above all these, an atmosphere which in itself will inspire learning. It was not without a touch of envy that I roamed these halls. No classman of '28 ever envisioned such a consummation of academic requirements. These facilities were as far removed from those of the twenties as the present Ford car from the then revolutionary Model A.

This simile prompts me to comment on the sharp contrast in the auto situation here between '28 and '53. Back then, those of us fortunate enough to have a Model A at our disposal were among the solvent minority. The T Model was the car of the day at Tech as elsewhere, and the penchant for inscribing each cherished buggy with varied witticisms was universal. "I don't choose to run . . ." had a ring of the times. I myself was the possessor of a "T" I fondly called Roaring Boring Alice. She was a faithful craft in her fashion, temperament being the prerogative of the aged. So it was with no little irony that I viewed the students' parade of old and honorably retired cars that weekend. Their present condition would have been considered a challenge to a man's mechanical aptitudes. The preponderance of sleek chassis now crowding the campus thoroughfares was a change to be sure. I wondered if this was an indication of a greater prosperity than the boom years of the late twenties or whether it signified a more benevolent generation of parents. Possibly, considering the present wage-scale, some of these cars represented the fruits of extracurricular toil. Pensively I figured it would have taken the undergraduate of twenty-five years ago three years of unremitting toil (with all expenses paid) to raise the tariff on one '54 Ford. . . . But looking back, I do

coins for the privilege. Should you hear that old saying about the law of average working out in the long run, forget it. Either the law of average takes longer than four years to work out, or my roommates had a two-headed coin. I went through my first year of Tech with a broom in one hand and a book in the other. These quarters (there is no singular, I believe) were located directly above what was then known as Uncle Gus' kitchen, a place where the skillet smoked by night and by day. The walls, furnishings and bedclothes were permeated with the odor of over-worked lard. It took the leanest years of the depression for me to recall those old fumes and the ship's-ballast biscuits which issued daily from that kitchen with anything but nostalgia. Rumor has it that Johns-Manville stole Uncle Gus' biscuit formula and put it into mass production. At this I would not sneer. I found this hallowed spot issuing daily from that kitchen with anything but nostalgia. Rumor has it that Johns-Manville stole Uncle Gus' biscuit formula and put it into mass production. At this I would not sneer. I found this hallowed spot

A portion of the 'Rock Parade.
not feel we were deprived. That our economic standards were lowly was compensated by the fact that they were less demanding in ratio. Our homely joys we found generally satisfying. Since we were virtually the creators of our automobiles, we were as intensely interested in their performances as the lad of today is by that of a Jaguar. Each extra mile per hour painfully cajoled from our flivvers provided exquisite gratification. Likewise the obstacles and risks, both physical and legal, which attended the procurement of a tin of corn contributed at least as much to its enjoyment as the bonded bottle from the local store offers the present day college celebrant.

Yes, many and broad were the changes apparent to this long-absent alumnus, environmental and practical, all indications being that Tech had graduated to the top of the league. That this increase in stature was all encompassing was confirmed by the sizable list of improvements and innovations covered by your reporter that weekend. The Guggenheim Aeronautical School and its neighbor, the Engineering Drawing building, two more majestic additions, lent substantially to the general campus opulence. The emphasis on aeronautics today demands such an excellent facility. Erstwhile wilderness had given way to a prosperous group of fraternity houses, the impressive Rose Bowl field, a brace of fine tennis courts, further new apartments, and the president's beautiful home. I could only wish for more time to appreciate them all in greater detail.

Buildings and facilities, however, are important only to the degree that they open wider the portals of learning. The present size of the student body has now grown to over 4,300 day students and an engineering extension division of over 12,000. During the years Col. Van Leer has been in office, more students have graduated from Georgia Tech than the combined total of all graduates since the college's initial opening in 1888. I respectfully submit that Tech is fortunate indeed to have such a great leader and educator at the helm.

During my reunion weekend, I had the opportunity to watch many campus activities. This was the weekend of the Clemson-Tech game, which the Yellow Jackets took with their customary ferocity. The results of this contest were luridly predicted by the colorful exhibits in front of the fraternity houses. Although this pagenantry was to me an additional innovation, I was pleased to note that the Tech man of today was not lacking in ingenuity and whimsy. Except for the substantial improvements in the stadium and the absence of coonskin coats, the game could have been a game of any year. The same color, crowds, esprit de corps. College football changeth not, thank Heaven. I've often wondered what fashion edict outlawed the honorable coon. He was warm, had an indefinable swagger and his pockets were commodious enough to conceal anything from a gold plated flask to a large listerine bottle. Maybe he went out with the rumble-seat. My fondness was of the vicarious sort, however, as the coonskins were worn primarily by the owners of the Model A's, but I coveted, none-the-less.

There is one memory of my collegiate days which will remain ever fresh and that is the memory of hard work. Throwing all such bon mots aside as haleyon and carefree, my days at Tech were full to over-flowing with grinding work. Let the Tau Beta Pi members say otherwise. I imagine the old order to be pretty much tougher today. The more progress, the more textbooks. With the present pace of things, it is fortunate the new library had a capacity of half a million books. Should it ever become necessary to expand this facility, I think it would be more humane to expand the college term. This in turn would be easier on the football coaches.

The young engineering graduate of today sometimes
finds himself unwillingly forced into specialization because of the constant broadening of the field as a whole, but it might be well to remember that, like the medical student, there is always the real need for the general practitioner. He is the liaison man between the specialist and the production line. In other words, the man who “knows and also can do.” During my years in the market place, I have observed that the engineer with the practical bent is a rarer bird than one would think and highly prized in the industrial field. I have met too many technical men with training and intelligence who have failed practically because of a lack of broad perspective, who have not been trained that a grasp of the whole problem is a necessity in this competitive era. They have become such slaves to rule of textbook that powers of imagination are stultified. They are frequently unable to sift the less significant from the significant as affects the whole. Specialists, research men, of course, particularly when as today each field has a thousand facets, but also the man who can link the pilot line with the production line. I feel real ability in this faculty to be partially a gift, and where this gift is recognized, it should be encouraged. But I am also convinced that there should be general exercises which will tend to develop the muscles of the minds of all engineering students to stretch beyond the laboratory and the drafting board. I do not mean this to take on the tone of an address to the graduating class, but I sneaked this into the text as I feel strongly on these matters.

The horizons open to the students of today are certainly unlimited. He will live to see more wonders than Horatio ever dreamed of, and I believe he will live longer to enjoy them. I have heard it asked, whether or not he looks to the future with optimism and as a challenge. I would not know. However, I feel that optimism or pessimism are states of mind which are not governed by the times. They are facets of the individual personality. Simultaneously, there will be the fellow who says the tank is half empty and the one who says the tank is half full. I do not think we need worry about the spirit of the youth of today. He is of the human race and his ability to roll with the punches is as much a part of him as is his appetite.

With vision and purpose, Georgia Tech has kept abreast of this swift tempo of scientific advance. Today, she has become a fountain-head able to liberally contribute to the ever increasing requirements for technically trained manpower. The men who have made her such have surely done the world a great service.

Yes, all this I saw and was grateful that I could see it. My Alma Mater has expanded in girth, her progeny had multiplied in number, but her spirit was of the same durable stuff. Her sons of '28; long scattered to the four winds, came back, brothers still, and she bid them welcome. For that and the other things she gave us in a time gone by, God bless her.

Hazard Reeves
Class of 1928

HAZARD E. REEVES
Class of 1928

Hazard Reeves received his B.S. in Mechanical Engineering from Tech in June of 1928 after a better-than-average record as a student. After graduation, he migrated to New York City to spend six months or so gaining experience before returning to his native Southland to work. He landed a job with a recording company at $25 per week and became so interested with the then infant sound industry that he never returned to his native area.

Today, just twenty-six years after his graduation, he heads three large corporations, all giants of the sound field: Reeves Sound Studio, Incorporated, the Kent's largest independent sound company; Cinetone, Incorporated, the engineering company that developed the giant of the S-B business; and Reeves Soundcraft Corporation, a large company which directs the operations of a number of companies manufacturing a variety of products from color television cameras to magnetic film.

In addition to these and other business activities, Hazard is president of the New York Georgia Tech Club, and a member of the Executive Club of New York and the Society of Motion Picture and Television Engineers. In saddest seriousness and "sumo rodeo" enthusiasm, Hazard lives in New Jersey with his wife and two teenage sons.
SIXTY-SIX YEARS OF PROGRESS

On November 24, 1882, the General Assembly passed a resolution to consider the establishment of a technical school in Georgia. In 1885 the law was passed appropriating $65,000 for the institution, and on October 7, 1888, the installation ceremonies were held at the Opera House in Atlanta. On July 1, 1944, Dr. Blake Ragsdale Van Leer became the fifth president of the Institution. The succeeding decade has witnessed the steady growth of the student body, of the faculty and staff, and of the physical facilities of the Institution.
Since he joined the staff in July of 1945, Dean John J. Pershing has won for himself the admiration, respect and affection of the entire student body and faculty of Georgia Tech.

John Pershing was born in Canton, Ohio, and was graduated from high school in Springfield, Ohio. He attended Wittenberg College where he received his A.B. degree in 1939. In 1940 he received his Masters degree in education from Springfield University. In 1952 Dean Pershing took a leave of absence from Georgia Tech in order that he might complete the requirements for his Doctors degree in education, which he received from Indiana University that year.

Now serving the Institute in the capacity of Associate Dean of Students, Mr. Pershing works tirelessly to further the interests of the students both in academic and extracurricular activities. His office is headquarters for student draft deferment information, fraternities and organizations affairs, foreign and transfer students, and matriculating freshmen. Dean Pershing is adviser to the Interfraternity Council, chairman of the Publications Board, and coordinator of Freshman orientation activities. These are only a few of the ways in which he has become one of Georgia Tech’s favorite administrators.

In appreciation for his endeavor, we respectfully dedicate the 1954 Blue Print to Dean John J. Pershing, a man who has helped us grow at Georgia Tech.
The Georgia Institute of Technology is today the largest and most outstanding engineering, scientific, and architectural educational and research institution in the South. Since its establishment seventy years ago Georgia Tech, through its graduates, has been instrumental in building up the industrial potential of the region until today it is foremost in the country in growth and opportunities.

Ten years ago there was a full-time enrollment of 2,905 undergraduate and 6 graduate students. Studies by administration and faculty indicated that in view of the industrial growth of the South and the Nation, the buildings, facilities, and equipment of the Institute should be expanded to take care of a student body of 5,000, of which number 500 would be graduate students. Some of the existing buildings, such as those utilized for textile, architecture, library, general studies, electrical engineering, R.O.T.C., and infirmary purposes were found to be totally inadequate and outdated for their required functions.

A development plan of the campus was prepared, showing present and proposed future buildings and facilities to accommodate a student body of 5,000. At that time, many of the proposed buildings were located outside of the 37 acres owned by Georgia Tech. We have extended our boundaries through purchases of adjacent land so that today we have one large campus of more than 135 acres, extending from below North Avenue to above Tenth Street and from the Expressway on the east to Hemphill Avenue and Atlantic Drive on the west. New buildings completed include $4,000,000 of residence halls and apartment houses, $1,000,000 Hightower Textile Building, $1,100,000 Architecture Building, $500,000 addition to Research Building, $2,000,000 Price Gilbert Library, $200,000 Chemistry Annex. Other construction planned to cost $14,000,000 includes Electrical Engineering, R.O.T.C., Armory, Infirmary, Student Activities, Research Laboratories, Administration, and other buildings.

The coming dynamic atomic age of tomorrow will find Georgia Tech at the forefront not only in the South but also in the nation.

BLAKE R. VAN LEER
President
ADMINISTRATION

CHERRY L. EMERSON, Vice President

PHIL B. NARMORE, Executive Dean
GEORGE C. GRIFFIN
Dean of Students

JOHN J. PERSHING
Associate Dean of Students

FRED W. AJAX
Associate Dean of Students
In Memoriam

Faculty

DR. MARION LUTHER BRITTAİN
President Emeritus
NOVEMBER 11, 1865       JULY 1, 1953

DR. ROSCOE ARANT
Professor of Industrial Management
JUNE 7, 1895              NOVEMBER 30, 1953

Students

JOHN WAGNER CAPLINGER
Sophomore, Architecture
JANUARY 9, 1934          NOVEMBER 14, 1953

JOHN CLAY HARVEY
Freshman, Civil Engineering
SEPTEMBER 9, 1936       DECEMBER 3, 1953

GEORGE WILEY FREDERICK
Freshman, Mechanical Engineering
MARCH 25, 1930          DECEMBER 6, 1953

IDON MARION HODGE, JR.
Junior, Aeronautical Engineering
MAY 16, 1923            DECEMBER 6, 1953
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WILLIAM L. CARMICHAEL
Registrar

HORACE W. STURGIS
Associate Registrar

JAMES G. WOHLFORD
Director, Cooperative Division

JAMIE R. ANTHONY
Controller

MRS. J. HENLEY CROSLAND
Director of Libraries
The Graduate Division is that part of the Institute through which the faculty of the Georgia Institute of Technology grants advanced degrees in engineering, science, management, and architecture.

The growing complexities of science, of professional engineering, of modern organization and management, and of architecture result in a need for additional higher education on the part of those who contemplate entering various functions in these professional fields. More and advanced education must be obtained to enable the engineer to deal successfully with professional engineering problems. This education can be obtained by a man through his own study or by graduate education. Few find it possible to acquire the needed education by their own reading and study following a full day's work on the job. Therefore, those desiring professional status should give serious consideration to graduate study at some institution.

Graduate study is highly recommended for students of engineering and science who wish to work in research, development, or highly technical and scientific design; for students of management, science or engineering who are interested in industrial management at a high level, or who wish to serve as consultants in industry or government; for students who wish to enter the fields of science, management, or engineering education; and for those who have personal objectives calling for graduate study.

The need for graduate study is producing tremendous growth in the number of graduate students in the whole nation. This growth has been great at Tech where there are now ten times as many graduate students as before the war, with almost 300 men being engaged in doctorate study.

Master's degrees are offered in all engineering, science, and management departments. The degree of Master of Architecture and Master of City Planning are offered in the school of Architecture, and the Doctor's degree is offered in Chemistry, Chemical Engineering, and Electrical Engineering.

Charles Bethoa, Graduate Club president, looks over a Ch.E. experiment.
The School of Aeronautical Engineering was established in 1930 through a gift from the Daniel Guggenheim Fund for the Promotion of Aeronautics. The purpose of this award was to establish opportunities at the Georgia Institute of Technology for study and research of the highest order in the field of aeronautics.

The recent progress in the fields of jet propulsion, rocket power, and supersonic flight makes the course in aeronautical engineering especially significant. In addition to the undergraduate curriculum, advanced work is offered for those desiring graduate study at the master's level, and plans are in the making for offering the doctorate. Opportunities are also afforded for research.

The physical plant, housed in two buildings, is well equipped for offering laboratory work to augment and lend interest to the theoretical courses. In addition to classrooms and offices, these buildings include a 9-ft. wind tunnel, a 2 1/2-ft. wind tunnel, a supersonic tunnel, a structures laboratory, a model and machine shop, a library, a seminar room, a lecture hall, and a large drafting room. Most of this equipment is also suitable for research projects. Both study and research are facilitated by the accessibility of the special library reference collection maintained in the center of the plant.

The present enrollment is 315 students.

Donnell W. Dutton, B.S., M.E.; M.S., A.E. — Professor
Director of School

George K. Williams, E.E., M.E.E. — Professor

Arnold L. Ducoffe, Ph.D. — Associate Professor

Richard G. Fleddermann, Ph.D. — Associate Professor

Walter Castles, Jr., B.S., A.E. — Associate Professor

School of... AERONAUTICAL ENGINEERING

LEFT TO RIGHT, FIRST ROW: Fleddermann, Dutton, Williams, LaVier... SECOND ROW: Ducoffe, Harper, Castles.
School of Architecture

The School of Architecture was established as a separate degree granting department in 1908. The primary aim of the school is to provide a broad and thorough preparation in the design professions of architecture, city planning, and industrial design. At the graduate level the school offers to qualified students a two year program in city planning and a one year Masters program in architecture.

A group of aspiring architects look over a working model.
In 1923 the School of Ceramic Engineering was organized at Georgia Tech, because ceramic and mineral industries had grown to such a degree in the South that a laboratory was needed to which the industries could turn for aid. Tech was selected because of its location and prominence in engineering education.

Ceramic Engineering has to do with the processing and uses of non-metallic minerals in the manufacture of such products as brick, tile, glass, cement, etc.

The course of instruction covers a period of four years and leads to the degree of Bachelor of Ceramic Engineering. It is so arranged that upon graduation a student has the foundation that should enable him to succeed in production, research, administration and sales of any of the ceramic industries.
The first undergraduate degree in Chemical Engineering was awarded in 1903. Approximately 375 students are enrolled in Chemical Engineering and some 60 undergraduate degrees will be issued in June 1954.

The first Ph.D. degree conferred by Georgia Tech was in Chemical Engineering in 1950. A total of 16 Ph.D.'s have been conferred to date. Of the 25 graduate students enrolled at the present time, 12 are pursuing doctoral programs.

The undergraduate curriculum of the School of Chemical Engineering is accredited by the Engineers' Council for Professional Development and provides excellent training for the men in that field.

Chemical engineers develop and operate chemical and manufacturing processes in which materials undergo chemical change to make them usable. The need of industry for trained men in this field will always be great and Georgia Tech graduates will continue in key positions in this highly technical phase of production. The success of these graduates in their profession attests the high standards of the School of Chemical Engineering.

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Chemistry has been in the basic curriculum of Georgia Tech since the establishment of the institution in 1888. It is required of almost all freshmen and more advanced courses are required in the curricula of several other departments.

Besides the Bachelor of Science, the School of Chemistry offers the Master of Science and the Doctor of Philosophy degrees.

The undergraduate curriculum in chemistry contains a number of electives and is therefore attractive to those students who expect to change into other fields such as law or medicine.

The Doctor of Philosophy, the most advanced earned degree, can be obtained in the fields of organic, physical, inorganic, or analytical chemistry.

Tech freshmen learn the basic principles in the Chemistry Department's labs.

School of...

CHEMISTRY

P. K. CALAWAY, Ph.D. .... Director of School

H. L. Edwards, Ph.D. .... Professor

W. M. Spicer, Ph.D. .... Professor

W. S. Taylor, Ph.D. .... Professor

W. E. Whiteley, Ph.D. .... Professor

R. R. Wroth, Ph.D. .... Professor

W. H. Eberhardt, Ph.D. .... Associate Professor

L. B. Frasher, Ph.D. .... Associate Professor

J. K. Gladden, Ph.D. .... Associate Professor

E. Grovenstein, Ph.D. .... Associate Professor

J. Hine, Ph.D. .... Associate Professor

J. A. Stansfield, Ph.D. .... Associate Professor

A. C. Topp, Ph.D. .... Associate Professor

A. T. Trouille, Ph.D. .... Associate Professor

W. H. Burrows, M.S. .... Associate Professor

N. H. Horton, M.S. .... Associate Professor

J. A. Knight, Ph.D. .... Associate Professor

J. T. W. Ross, M.S. .... Associate Professor

H. K. Grant .... Associate Professor

Mrs. N. M. Thribread .... Laboratory Stores

Miss M. M. Fleming .... Secretary

LEFT TO RIGHT, FIRST ROW: Wroth, Eberhardt, Knight, Berrows, Taylor, Whiteley.

SECOND ROW: Spicer, Sessions, Kiech, Frasher, Calaway.

Civil Engineering is the oldest of the engineering professions. The civil engineer coordinates the resources of nature, men, and machines toward the goal of better living for mankind. He works in the broad fields of surveying and mapping, sanitation, transportation, hydraulics, structures, mining, irrigation and reclamation.

It is the civil engineer who designs and builds highways, railways, airports, structures of all types and sizes, dams, sewerage and water supply systems, harbors, bridges, docks, tunnels, aqueducts, reclamation systems for swamps and wastelands, river system developments, and irrigation projects.

The Civil Engineering building, completed in 1938, contains modern classrooms, laboratories and drafting rooms.
The curriculum of the School of Electrical Engineering is planned to give a comprehensive training in the fundamental sciences. It provides for adequate training in the scientific and applied aspects of important branches of engineering other than electrical.

The electrical power engineering option has to do with the theoretical and practical phases of power generation, distribution and utilization. It deals with the principles of alternators, transformers, motors, converters and the transmission and distribution of electric power.

Students desiring to specialize in radio, electronics and telephony may choose the communications and electronics option. This option offers theory and laboratory courses in radio, electronics, telephony, wave filters, transmission lines, antennae and radiation.
**INDUSTRIAL ENGINEERING**

The increasing magnitude and complexity of modern industrial plants has demanded the development of a branch of engineering now widely recognized as industrial Engineering. The primary field of the industrial engineer is that of the process and production expert engaged in planning, organizing, improving, managing and operating various processes for producing manufactured products of all kinds. He is also in heavy demand throughout every type and phase of industry and business.

To meet the need of industry for this new engineering philosophy the School of Industrial Engineering was formed. The first degree was awarded in 1946 and to date more than 1,000 B.S. and M.S. degrees have been awarded. The present annual enrollment of the school is now well over 400.

During 1952, additional space was made available to the school which now covers both floors of the A. French Building and will permit the development and extension of much needed laboratory facilities.

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School of...

### INDUSTRIAL ENGINEERING

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Frank F. Groseclose, M.S.</td>
<td>Professor</td>
</tr>
<tr>
<td>William N. Cox, Jr., M.M.E.</td>
<td>Associate Professor</td>
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<tr>
<td>Robert M. Eastman, M.S.</td>
<td>Associate Professor</td>
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<td>Paul T. Eaton, Ph.D.</td>
<td>Associate Professor</td>
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<td>W. Dale Jones, Dr. Eng. Sc.</td>
<td>Associate Professor</td>
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<td>Robert N. Lehrer, Ph.D.</td>
<td>Associate Professor</td>
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<td>Joseph J. Moder, Ph.D.</td>
<td>Associate Professor</td>
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<td>Raymond N. Trowbridge, M.A.</td>
<td>Associate Professor</td>
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<td>Harwell L. Boyd, Jr., M.S.</td>
<td>Assistant Professor</td>
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<td>Winfield A. Brooks, M.S.</td>
<td>Assistant Professor</td>
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<tr>
<td>James M. Galey, M.S.</td>
<td>Assistant Professor</td>
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<tr>
<td>John B. Day, B.S.</td>
<td>Lecturer</td>
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<tr>
<td>Paul H. Friedman, B.E.</td>
<td>Research Graduate Assistant</td>
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<tr>
<td>Martin B. Roberts, Jr., B.E.</td>
<td>Graduate Assistant</td>
</tr>
<tr>
<td>Mrs. Bernice G. Fowler</td>
<td>Secretary</td>
</tr>
<tr>
<td>Moore Tappan</td>
<td>Technician</td>
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Professor Day explains the problems of warehouse analysis.
The objective of the School of Industrial Management is to train students for leadership in industry. Direct emphasis is placed upon management of capital, finances and accounting, employment, training and management of personnel, marketing the finished product and the most up-to-date and scientific methods of production.

In carrying out this plan of training, special emphasis is placed upon the personalities and qualities that are exemplified in the life and work of successful leaders. While a knowledge of the subject-matter of courses offered are not minimized, it is not stressed in such a way as to overshadow the importance of the student and the broadening of his vision as to the part he is to play as an industrial leader. He receives basic training in science, applied engineering and mathematics in order to become grounded in sound methods of approach to the solution of industrial and manufacturing problems.

To aid in the work of the school, considerable equipment such as adding machines, calculating machines, projectors and other teaching aids has been added during the present year. In addition, the lighting facilities of classrooms and laboratories have been greatly improved. At the present time the enrollment is 555 students.

HUBERT E. DENNISON, A.B.  Professor
Director of School

ROSCOE ARANT, PH.D.
MDNICE R. BRESTER, M.B.A.
ALPHES R. MARSHALL, PH.D.
WILLIAM J. PROCTOR, M.A.
NOAH WATSON, M.A.
FRED B. WENN, M.A.
ERNST W. ALDREDGE, Ph.C.
J. CARLETON BROWN, B.C.
GLENN W. GILMAN, M.S.
ROY A. JAMES, M.A.
SAMUEL THOMPSON, Ph.D.
E. R. BOLLINGER, M.S.

W. S. BUCKINGHAM, JR., PH.D.
SHERRMAN D. DALLAS, M.A.
JOHN T. ETHERIDGE, M.A.
WILLIAM A. FLYNN, M.B.A.
JAMES W. GRIFFIN, M.S.
GEORGE E. MARBON, M.S.
WADEN E. MOELLER, M.B.A.
JAMES W. SWEENEY, M.S.
LEROY W. BURNS, R.N.
T. B. CHISHOLM, M.S.
JOHN L. WELLS, R.S.
RANDOLPH K. WILSON, R.S.
RAYMOND D. SALL, M.S. (On Military Leave)
MRS. ANNE CHASTAIN, R.C.S.
MRS. JUANITA SCOTT

Students learn how to operate the modern calculators.
The School of Mathematics offers the B.S. degree and M.S. degree both in Applied Mathematics. It offers an entire series of courses at the 400 and 600 level which many students interested in mathematics take as an elective. Although primarily a service department, the number of advanced courses actually outnumbers those in the undergraduate division. The total enrollment for the fall quarter was 2,906, the largest in the past five years.
The School of Mechanical Engineering was the only degree-granting department of Georgia Tech from the opening of the Institute in 1888 until 1906. The course of study has changed through the years to the present curriculum in which broad application of fundamental theory is emphasized.

Mechanical Engineering embraces the science and art of the generation, transmission, and utilization of heat and mechanical energy, as well as the production of tools, machines and their products.

There are no optional courses in Mechanical Engineering, but electives are provided whereby a student may have some choice of subjects most suited to his individual desires. The curriculum is designed to provide the basis for future advancement of Mechanical Engineering graduates as professional engineers and as citizens.

Seven hundred and seventy-five students were enrolled in the School of Mechanical Engineering during the fall quarter.

The fundamentals of machine shop are taught in M.E. lab.
Two physics students collaborate on a basic mechanics problem.

In the last few decades, physicists have emerged from their laboratories to participate more directly in the work of the world. The pace of technical progress has become so fast that industry is ready for the next scientific discovery before it has been made, and physicists are wanted to work side by side with engineers in developing practical applications. This, and the increasing complexity of industrial and military equipment calls for the education of more physicists, and for the education of engineers with more fundamental training in physics.

The School of Physics meets the need for training in physics by offering basic service courses to all sophomores and by offering advanced work leading to either a bachelor's or master's degree in physics. The curriculum for a degree includes advanced general courses with a liberal choice of electives. A student may thus prepare either for the newer and more direct participation in industry, or for a scientific career of the more traditional type.
Opportunities for trained people in the textile industry are unusually diverse and numerous. There are positions available in practically all branches of the industry. Designers, salesmen, chemists, engineers, laboratory technicians, overseers, inspectors and specialists in machine operation and efficiency, personnel problems, testing, time studies, merchandising, and product development are but a few of the numerous trained men needed by the textile industry.

In order to provide the textile and related industries with prospects for supervisory, administrative and executive positions, the School of Textile Engineering offers courses leading to the degrees of Bachelor of Textile Engineering and Bachelor of Science in Textiles. The work leading to the degree of B.S. in Textiles may be taken in one of two options, viz., Textile Chemistry and Dyeing, and Textile Manufacturing. Each of these may be taken as a regular four-year course, or in accordance with the five-year co-operative plan.

Graduate courses are also provided leading to the degree of Master of Science in Textiles and M.S. in Textile Engineering.

The purpose of the A. French Textile School of the Georgia Institute of Technology is to give to each and every student entering the school the advantage of the best training and advice possible in the textile field.

Practical applications in the T.E. lab provide some experience for the future Textile Engineer.

School of...

TEXTILE ENGINEERING

HERMAN A. DICKERT, A.B., M.A. . Professor
Director of School

CHARLES A. JONES, B.S. . Professor (Emeritus)

JAMES L. TAYLOR, Ph.D. . Professor

RALPH L. HILL, B.S., M.S. . Professor

GERALD B. FLETCHER, B.S. . Associate Professor

WILLIAM POSTMAN, Ph.D. . Assistant Professor

J. W. McCARTY, B.S., M.S. . Assistant Professor

RALPH C. LATHEM, B.S. . Assistant Professor

SAM M. WILLIS, B.S. . Instructor

D. E. PHILPOTT . Supervisor
Regardless of his field, no engineer has received proper training without adequate knowledge of certain basic subjects—service courses, as they are called. This division offers such courses in two fields—Engineering Drawing and Mechanics—with the purpose of providing students of the Georgia Institute of Technology with sufficient knowledge of these subjects to perform the services required of an engineer.

Engineering Drawing, fortified by descriptive geometry, is designed to give students a basic skill in making and understanding drawings and putting their ideas into graphical representation. Mechanics concerns forces and their effects in producing and changing motion and in altering shapes of bodies. This is the foundation for the design and construction of machinery, structures, and bridges.
The English Department is one of the largest and oldest departments of the campus. Its twenty-six members have taught at Georgia Tech a total of more than two hundred years. The department teaches required courses to all freshmen, all sophomores, and eighty per cent of the juniors, in addition to offering elective courses for a large number of upper classmen.

It is especially interested in campus organizations and supplies faculty advisers to such organizations as the Debate Club, The Technique, the Y.M.C.A., the Blue Print, and ODK. But its chief aim is to see that every Tech student speaks well, writes correctly, thinks clearly, and reads widely.

Andrew J. Walker, Ph.D. (on leave)  Professor
Head of Department

Edwin H. Folk, A.B., M.A.  Professor
Acting Head of Department

Glenn W. Rainey, A.B., M.A.  Professor

Hal C. Brown, A.B., M.A.  Professor

Henry W. Adams, A.B., M.A.  Associate Professor

David B. Comer, III, A.B., M.A.  Associate Professor

Edward Foster, A.B., M.A.  Associate Director

W. Richard Metcalfe, A.B., M.A.  Associate Professor

Tom F. Almon, B.S., M.A.  Assistant Professor

Ralph Berlack, A.B., M.A.  Assistant Professor

Milton Chaikin, B.S., M.A.  Assistant Professor

B. Bernard Cohen, Ph.D.  Assistant Professor

Fred Eikel, A.B., M.A.  Assistant Professor

Leonard Goldstein, A.B., M.A.  Assistant Professor

James B. Haman, A.B., M.A.  Assistant Professor

A. Frank Hamrick, A.B., M.A. (on leave)  Assistant Professor

Alton A. Hobgood, A.B., M.A.  Assistant Professor

Samuel C. Ketchin, A.B., M.A.  Assistant Professor

William B. Mullen, Ph.D.  Assistant Professor

Karl Murphey, Ph.D.  Assistant Professor

Ralph R. Spillman, A.B., M.A.  Assistant Professor

Joseph Whitt, Ph.D. (on leave)  Assistant Professor

Robert L. Banks, A.B., M.A.  Instructor

J. L. Dillard, A.B., M.A.  Instructor

James A. Harvey, B.S., M.A.  Instructor

Paul Hurford, A.B., B.D., M.A.  Instructor

John P. O'Neill, B.S., M.A.  Instructor

John W. Platt, Jr., A.R., M.A.  Instructor

James K. Sisson, B.S., B.S.Ed., M.S.  Instructor

Mrs. Mary Nell Ivey, A.B.  Drama Director

Miss Helen Auclair  Secretary
Strength of body and mind are closely correlated. The Department of Physical Training presents a two year course with two primary objectives: (1) Keeping the student physically fit while a student in our institution, and (2) Giving the student such instruction and motivation in “carrying over” sports that he will continue to pursue some of these activities after he leaves Georgia Tech.

Outdoor games is one of the required courses in Physical Training.
The Department of Modern Languages seeks first to give the student sufficient mastery of a foreign language to enable him to read and understand with reasonable facility the scientific and technical literature of that language. Further, it seeks to inform the student, through the medium of the foreign language, of the civilization and literature of the countries where that language is spoken.

The Department of Social Sciences serves the college as an integral part of its program of general education. To be a fully educated citizen the engineer must have a broad background of general training in fields not specifically technical. Among these are courses in government, history, sociology, current affairs, and applied economics. The election of these courses tends to broaden the view of the prospective engineer and to help him understand the far-reaching problems of our complex modern society.
Students of engineering, chemistry, management, and indeed all who intend to assume positions of responsibility in industry, are vitally concerned with problems of health and sanitation, both industrial and environmental. The Department of Public Health and Biology provides courses in industrial and environmental sanitation, water and food sanitation and the modern methods and techniques used by industrial and governmental agencies in the solution of the problems of public health.

The Department of Psychology was established at Tech as a service unit in 1945. The philosophy of the department has been to stress the importance of the human factor in all phases of engineering. An attempt has been made to make students sensitive to the whole man, his attitudes, his feelings, his fears and his desire for recognition and security.
The Federal Government maintains, at the Georgia Institute of Technology, a Senior Division of the Air Reserve Officers' Training Corps. General objectives of the course of instruction are to produce junior officers possessing the qualities and attributes essential to their progress and continued development in the Officers' Reserve Corps of the United States Air Force and in the Regular Air Force. Training in military leadership is emphasized.

The academic year 1953-54 saw the implementation of a generalized course of instruction in the Air Force ROTC Department. This course of study was designed to better prepare students for service as officers and at the same time insure that Air Force ROTC instruction be generally acceptable to colleges and universities.

HUGH C. MOORE, Colonel, USAF - Professor of Air Science and Tactics
BENJAMIN C. WILLIS, Lieutenant Colonel, USAF - Assistant PAST
PHILIP G. DEMURO, Major, USAF - Assistant PAST
DAVID M. GUY, Major, USAF - Assistant PAST
DONALD E. DANO, Captain, USAF - Assistant PAST
FOREST O. McCURIE, Jr., Major, USAF - Assistant PAST
ROBERT L. MITCHELL, Captain, USAF - Assistant PAST
RALPH STEPHENSON, Captain, USAF - Assistant PAST

WILLIS D. FRIESTEDT, M/Sgt. - Sergeant Major
HAROLD C. BROWN, M/Sgt. - Supply Sergeant
BURRELL C. YEAGER, M/Sgt. - Senior Clerk
WOODROW SPRADLIN, M/Sgt. - Instructor
LAWRENCE E. McMAHON, T/Sgt. - Instructor
WILLIAM C. TOWNSEND, T/Sgt. - Assistant Supply Sergeant
RICHARD D. MILES, S/Sgt. - Instructor
DEWEY E. ROBINSON, S/Sgt. - Instructor

LEFT TO RIGHT: FIRST ROW: Miles, Moore, Friestedt, Townsend.
SECOND ROW: Spradlin, Demuro, Yeager, Guy, McMahon.

Captain Sloan instructs a group of students in Air Force lab.
The Federal Government maintains, at the Georgia Institute of Technology, a Senior Division of the Army Reserve Officers' Training Corps, consisting of six units: Antiaircraft Artillery, Infantry, Chemical Corps, Corps of Engineers, Ordnance Corps, and Signal Corps. General objectives of the course of instruction are to produce junior officers possessing qualities and attributes essential to their progressive and continued development in the Officers' Reserve Corps of the Army of the United States and in the Regular Army. Training in military leadership is emphasized, with instruction being given in subjects common to all branches of the Army and in tactics and technique of the several branches.

The complete course of instruction of the Senior Division ROTC program comprises four years, with approximately 130 hours of instruction in each of the two years of the basic course, and 160 hours of instruction in each year of the advanced course with the addition of a summer camp.
The Naval Reserve Officers Training Corps Unit at the Georgia Institute of Technology is one of the fifty-two units at colleges and universities throughout the United States. Its purpose is to provide both regular and reserve officers for the U. S. Navy and Marine Corps. Courses are offered leading to a commission as Ensign, Line or Supply Corps in the Navy and Naval Reserve, and Second Lieutenant in the Marine Corps and Marine Corps Reserve. A portion of the students attend Georgia Institute of Technology under the Navy scholarship program in which most of their expenses are paid by the Navy. The number who may enroll is limited by a quota established by the Bureau of Naval Personnel each year.

Juniors taking Navy soon learn to navigate.