



THE SCHOOL OF TECHNOLOGY

THE NEWS

CITY COLLEGE OF NEW YORK

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222

BY STUDENT FEES

Engineers Erect New Tech Society Building Downtown

By TED SEMEGAN

Across from the United Nations Plaza, in the heart of Manhattan, another all glass exterior construction faced with stainless steel and sparkling windows has been erected. The product is a twenty story building costing over twelve million dollars — the United Engineering Center.

Replacing the 55 year old Engineering Societies Building at West 39th St. in Manhattan, the Engineering Center will house 19 engineering societies, the largest free public engineering library in the Free World, Engineering Index Inc., as well as the editorial office for jour-

als like Chemical Engineering Progress, Mechanical Engineering and the AICHE Journal. It will be the major center and headquarters of operations for a total of at least 300,000 engineers.

Modern Library

The modern design and beauty of this neighbor of the U.N. Building is exemplified in the fluorescent illuminated library which has a special temperature humidity control for the protection of its collection of 180,000 volumes. Open from Monday thru Saturday, the library has facilities for translations, micro-filming and photocopying. The texts offered are geared for the practicing engineer and graduate engineering students.

A closely allied feature of the library is "Engineering Index Inc.," a non-profit organization whose chief concern is the indexing of all the technical articles written, for the use of engineers, industry, authors and education. Reviewing technical material from at least 3,400 periodicals from 45 countries besides the U.S., the Index prints on 3 by 5 library cards each week, the reviews for the special field of interest of each subscriber. Finally, at the end of

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New Societies' Home

Chem. E's Hear Talk On Solid Rocket Fuels

By RICHARD FELDER

On October 5, Dr. Herman Bieber of Esso Research and Engineering spoke about rockets and fuels to the local chapter of A.I.Ch.E. Combining a rapid-fire delivery with occasional wry humor, Dr. Bieber presented the theoretical background of rocketry and a discussion of the relative merits of liquid and solid fuel propellants. The speaker, who has co-authored a chemical engineering textbook and lectured at several schools, including CCNY, has been directly concerned with Esso's High Energy Propellant Division; his discussion of fuels included references to several substances currently under investigation.

Among the points brought out was the surprising fact that liquid fuels have considerably greater energy potentials than do solids. The advantages of solid fuel rockets include comparatively low cost, simplicity of design, and fuel stability. In connection with the third point, Dr. Bieber mentioned one par-

ticular fuel which exploded and left a crater 60 feet deep and 100 feet in diameter. He added that this fuel is dangerous. In another part of the lecture—an energy equation derivation—Dr. Bieber pointed out several simplifying assumptions; he struck a responsive note in his audience when he subsequently pointed out that the same assumptions would lose points on Ch.E. 128 tests.

Other specific points covered by the lecture included an explanation of escape velocity calculation, typical energy potentials of a number of fuels, the problems involved in fuel synthesis, and some of the heat transfer problems of fuel burning.

Dr. Bieber concluded by pointing out that while chemical propulsion — using solid or liquid fuels — might be adequate for everyday projects like ICBM propulsion, more exotic techniques, such as nuclear propulsion, would be required for space travel.

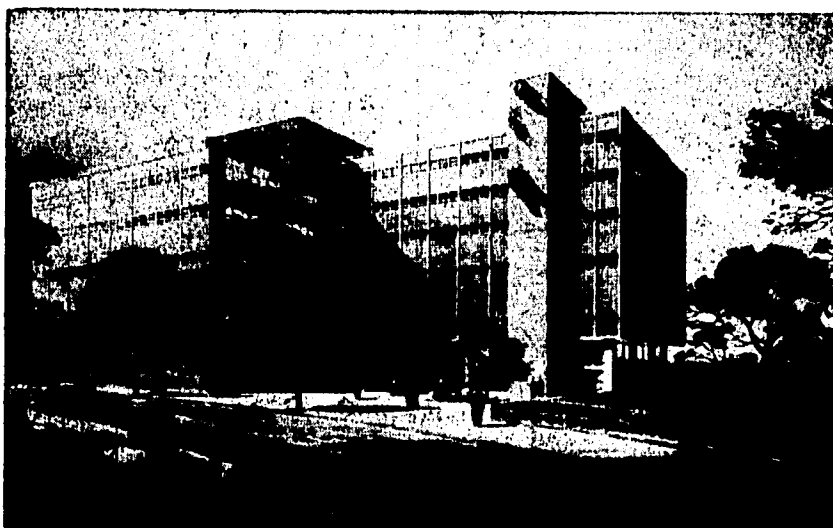
Outlook Is Promising for Opening of Tech Building

By CARYL SINGER

The events of the past few days have proved encouraging for the scheduled opening of the new Technology Building.

Dean Hyman has stated that as yet there is no serious delay. They are still going ahead with their schedule of installation, the moving of the laboratories and the new equipment. This is going on simultaneously with the construction. At the moment the only possible delay will be in the Chemical Engineering area.

A spokesman for the American Surety Co. explained the situation as follows. Presently the Frouge Construction Co. has four bonding agencies. The American Surety Co. received



It Should Open Next September

Vector Wins First Prize for Best Issue

At the convention of the Engineering College Magazine Association held October 5-7, Vector, the CCNY engineering magazine walked off with three awards, one of them being first prize for best issue of the year. The purpose of the convention, held at the University of Michigan, was to permit the fifty-one member publications to discuss mutual problems of magazine production and technical writing.

Vector also received an award for ranking fourth nationally with the best all-around maga-

zine of the year. It was preceded by Purdue, University of Michigan, and Iowa State. Vector's tech crossword puzzles won it a second place award for the best recurring feature.

The conference featured speakers from Westinghouse, Ford, and General Motors. Among the colleges attending were RPI, Cornell, and the University of Southern California.

This term Vector will be on sale November 13-15. Editor Ed Rosenthal has promised an interesting and entertaining issue.

E-Day Is Dropped; TIIC Starts Afresh

By SAMUEL EIFERMAN

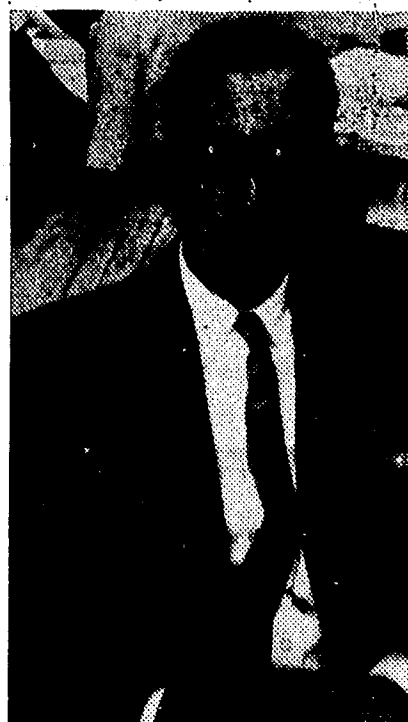
At the last meeting of the Technology Intersociety Interfraternity Council on Thursday, October 5, Judy Goldberg, President, announced to the small number of people that attended that E-Day and consequently E-Day Ball would be called off this year. She said the reason E-Day was called off was that more than half of the machines usually exhibited during E-Day were being dismantled in order to be moved over to the new Technology building. E-Day itself is held once every year. It is the official day when the Engineering Department at the School with the help of the Engineering students show off the Departments facilities to High School students and representatives from industry. What usually happens on E-Day is that in the morning the students from High School assemble in Wingate gym to hear a talk on the days activities.

After this they have a choice of exhibits to visit. After the days activities which include refreshments, the High School students go home with an idea of which City College will offer them if they should decide to take up Engineering as a career. When all the High School students have left the Engineering students get ready for the E-Day Ball, which will bring to a close the activities on E-Day. The E-Day Ball is usually the largest social event on the Engineering students calendar. It is a semi-formal dance which in the past many painstaking hours of the TIIC to plan and carry out.

To Reorganize

This year with E-Day and E-Day Ball being called off the TIIC decided to use the time this will leave to reorganize itself. The TIIC in order to reorganize itself must have its members in attendance at every

(Continued on Page 3)



Dean Hyman

official notice that the Frouge Construction Co. was declared in default of contract on Sept. 28th, but the bonding company did not receive the written notice until the 4th of October. The bonding company must start work within twenty days after the time of the declared default of contract was received.

To date there has been no definite decision as to whether the bonding company will hire another company to continue with the construction of the Technology building. A definite decision is expected by Monday, October 23rd.

The legal department of architecture and the engineering unit of the Board of Higher Education summarized their position. If the bonding company does not supply a contractor themselves, the unit of the Board of Higher Education can hire their own contractor without taking bids, and they can then bill the bonding company.

At last things look promising for the opening of our new Technology Building.



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Editorial Policy of TECH NEWS is determined by a majority vote of the Editorial Board

Societies Building...

(Continued from Page 1)

each year, a bound volume of all the card index information for the whole calendar year is sent to each subscriber.

The original 16 story edifice at 39th Street, the Societies Building, was the product of a 1½million dollar donation by Andrew Carnegie for the purpose of uniting into one building the administrative activities of the engineering profession. The founding societies include the Civil, Chemical, Mechanical, Electrical and Petroleum engineering organizations. These five organizations formed The Engineering Trustees in 1904 in whose ownership and authority both the old and new structures are vested.

The Engineering Center, which is at 345 E. 47th St. (near First Ave.) is now the home of the five founding societies as well as the following organizations:

Society of Women Engineers.

American Institute of Consulting Engineers.
Municipal Engineers of the City of N. Y.

American Institute of Industrial Engineers.

American Society of Heating, Refrigerating and Air Conditioning Engineers.

American Welding Society.

Illuminating Engineering Society.

American Institute of Mining, Metallurgical and Petroleum Engineers.

LOOKING FOR SOMETHING?

If it's an extra-curricular activity that's interesting educational, and fun and which also carries fame in print, come to the Tech News office, 335 Finley between 1:00 and 1:30 to apply for candidacy. We give free lessons.

Club Notes

AIEE-IRE

On Thursday, Oct. 19, in S30 AIEE-IRE will present Noah Gottfried, a Vice-President of Electronic Research Associates Inc., who will speak on "Practical Aspects of Transistorized Equipment Designs." The talk will summarize the impact of the transistor on power equipment. It will deal with the advantages and limitations of transistorized designs and compare them with conventional vacuum tube configurations.

Several types of the miniaturization that have been achieved will be displayed and described.

A novel miniaturized High Fidelity Loud Speaker System will also be described (Audiophiles take note). At the conclusion of the lecture a film and discussion period will highlight the key points of the lecture.

The "Ban"

The decision of the Administrative Council of the City University to ban speakers of doubtful Communist orientation is, in effect, a reversal of last term's decision to lift the Smith Act speaker ban, which barred persons convicted under the Smith Act from speaking at the city colleges. The new ban is based on the Supreme Court decision that all American Communists must register as members of the Communist Party, which is illegal. If a person is a Communist and hasn't registered, he is breaking the law and should not be allowed to speak here. The reasoning is something like that; we haven't been told exactly because the question is still under study. We also are refused information on what criterion will be used to decide who comes under this classification. We only know that now controversial speakers can be refused permission to speak with the "temporary" ban given as the reason.

We feel that this ban is a restriction upon academic freedom. Our students are reasonably mature, adult thinkers. We ought to be allowed the opportunity to hear persons of all political views. The fact that they may be disagreeable does not lessen, but strengthens, the need to have them available. The college campus is the proper place to hear Fascist, Anarchist, Communist or other radical speakers.

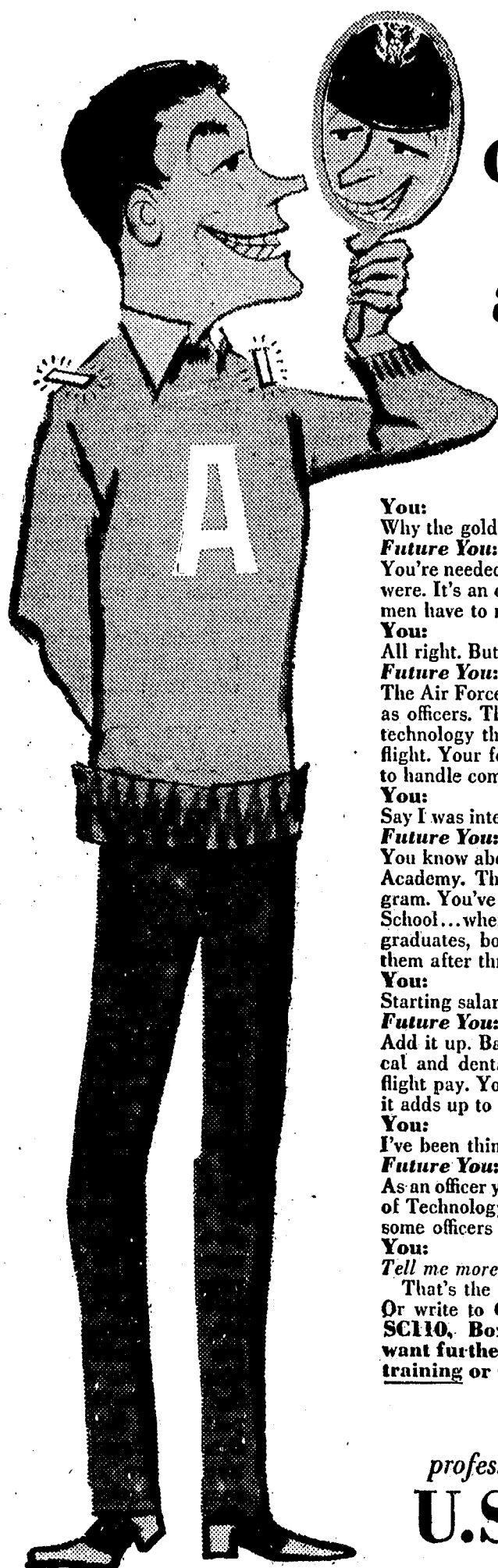
The action by the City University presidents may well have been taken due to the desire to protect us and the colleges' names from harmful influences. The doctrine of "en loco parentis," that the school takes the role of parents for the protection of our minds and morals, has been denounced by the National Students Association. Students are quite capable of differentiating a person's speech and determining the tangent that the speaker was talking on.

Engineers in particular should be disturbed by the ban. The nature of one's work and employer may make it difficult to hear certain speakers. If we don't hear them now, in school, we may not get any other chance.

In order to increase student interest, awareness, and knowledge on this subject, the Student Government is sponsoring a forum on the topic "Freedom of Speech Endangered in Our Schools" this Friday at 3:30 in the grand ballroom, 121 Finley. Mark Lane, New York State assemblyman, and speakers from the American Civil Liberties Union and the National Students Association will be among those offering views on the topic.

Time Tiics Away

TIIC's last meeting showed that the organization has not been cured of chronic malattendance. Well, they're taking the hint. TIIC is embarking on a comprehensive reorganization. But the change needs cooperation too; it will take a lot of work and people to draw up a good new constitution and by-laws. We feel that the change is warranted, though. The council has been suffering from "tired blood" and sorely needs something to stimulate and revitalize its activities. We urge all tech groups to attend the forthcoming reorganization meetings so that they may have a voice in deciding the nature of a new Technology Intersociety Interfraternity Council.



had a one-man conference about your future lately?

You:

Why the gold bars?

Future You:

You're needed... just as your father and grandfather were. It's an obligation that a lot of qualified college men have to meet. If we don't...

You:

All right. But what can I do for the Air Force?

Future You:

The Air Force needs college trained men and women as officers. This is caused by the rapidly advancing technology that goes with hypersonic air and space flight. Your four years of college have equipped you to handle complex jobs.

You:

Say I was interested...how can I get to be an officer?

Future You:

You know about Air Force ROTC and the Air Force Academy. Then there's the navigator training program. You've probably heard about Officer Training School...where the Air Force takes certain college graduates, both men and women, and commissions them after three months of training.

You:

Starting salary is important. What about that?

Future You:

Add it up. Base pay, tax-free allowances, free medical and dental care, retirement provision, perhaps flight pay. You don't have to be an eco major to see it adds up to an attractive package.

You:

I've been thinking about getting my Master's.

Future You:

As an officer you can apply for the Air Force Institute of Technology. At no cost, and while on active duty some officers may even win their Ph.D. degrees.

You:

Tell me more.

That's the job of your local Air Force Recruiter. Or write to **Officer Career Information, Dept. SC110, Box 7608, Washington 4, D.C., if you want further information about the navigator training or Officer Training School programs.**

There's a place for professional achievement in the
U.S. Air Force

TECH LIFE

By MAURICE BLUESTEIN

By the latest action of the City University, that of barring Communist speakers from the city colleges until further notice, it appears that individual freedom is being suppressed in favor of a united stand. Little did we know that the creation of a City University would bring with it not only more money, a doctorate program, and all the other glories of University status, but also a gradual obscurity for the individual colleges. I suspect that years from now the names "City College," "Hunter College," "School of Technology" will be completely forgotten in favor of "City U."

The fact that Acting President Harry Rivlin went along with this defeat of student enlightenment leads me to believe that the presidents of the colleges are more interested in unanimous decisions for the budding organization than in sound judgment. Dr. Rivlin is acknowledged to be an able and progressive man in the field of education, somehow his decision to go along with the other college presidents seems quite out of his character.

The time has come to do some clear, individual thinking on a lot of things. When I say individual thinking I do not mean radical thinking. Some people have the idea that individualism, individual thought, means not going along with the crowd, disagreeing with the majority. This is hardly the case; if a person thinks for himself and makes his own decisions, he will usually find himself agreeing with the majority of other people. After all, the fact that there is a majority, while not necessarily meaning that the majority is always right, means that in the majority of instances, the majority will be right. If this last sentence seemed a bit Susskindish, it's really just a matter of mathematics; just figure it out.

The City College should make its own decisions apart from the University. We should maintain and support the boast that the City College has long been the seat of progressive and individual thought. Why just this past week-end our Tau Beta Pi chapter of the national engineering honor fraternity sent a delegation to the national convention in Cincinnati, Ohio to lobby for the inclusion of women as full members in Tau Beta. At present, women can hold "badges" of recognition in the organization but cannot receive membership. Our chapter has shown the progressive way by continually fighting for women membership and will continue to fight for it in the future until it becomes law.

We could certainly use a little of this forge ahead attitude at home.

* * *

I'm sure that many of our readers have no occasion to venture to the land of misbegotten bliss otherwise known as South Campus. If you are one of these poor unfortunates, you are sorely missing one of the lighter sides of college life. There are some North Campusers like myself who have journeyed down during the 12 to 2 Thursday break to have our lunch in the confines of the wonderful South Campus cafeteria.

You have never really eaten until you have eaten lunch there. You begin by walking down the food line where somehow the food does not produce that certain necessary stimulation to even the hungriest of people.

At the beginning of every lunch hour (11, 12, and 1) every day, there is always a significant excess of students over seats. This causes a good deal of anxiety and a good deal of cold food.

Let us assume that you are finally seated. You feast; you fill yourself up. Now you are finished, as soon as this happens you will be accosted by a person whom one can only call a "bouncer." It will be either a nice, sweet, gray-headed woman wearing a very domestic smock, or an outwardly pleasant, blue-serge-attired gentleman. She or he will tell you in the most pleasant of tones to leave the cafeteria now that your dinner is at an end. You mean you enjoy a smoke after a meal? Forget it; you've been evicted. So what if there are empty tables and chairs all about at the moment; we must make room — room for what?

Well suppose you decide to have some more of that luscious food. You sit down and lo, and behold you see four of your friends coming in. Naturally you invite them to join you and so they do. They get their food and sit down; oh-oh, here comes she or he again to tell you that only four are allowed at this table. You have five, hence one friend must be banished to another table to eat, an outcast from his friends.

If this is considered intelligent management, then somebody has gone off the deep end. Fine if you want to keep people moving on as soon as possible when the cafeteria is crowded. However to insist that people leave as soon as they are finished eating when the cafeteria is virtually empty is entirely unnecessary. This four-at-a-table idea is purposeless. Perhaps adding more chairs and encouraging more than four at a table would alleviate the early-hour crowded situation.

It appears that the South Campus cafeteria has made significant progress in the harassment of the student body; it has not cared to improve service, such as seeing that the tables are cleaned from soiled dishes and trays quickly. Well, we students are getting used to being treated like children around here anyway.

So much for a misguided venture; if you northerners want to see how lucky you really are, take a trip south for lunch sometime. But as for me, give me liberty, or give me the North Campus cafeteria.

THIC...

(Continued from Page 1)

meeting but at this meeting there were barely enough members to make a quorum. At this meeting A I Ch E, A S C E, E N G, I R E, Sigma Chi Epsilon, S P O, and Vector did not attend. This means that most of the major organizations in THIC didn't attend this meeting for the discussion of THIC's proposed new constitution and the reorganization of THIC's activities. Because of the lack of responsibility of these organizations in not sending representatives to the council meeting, the THIC will not be able to carry out its reorganization plans and faces dissolution.

Mr. Irwin Brownstein again addressed the council, this time on its attempt at reorganization. He stated that it would take the THIC the major part of this term to revise its constitution. He suggested that THIC should be a pressure group instead of trying to maintain its present status. He hopes that this term THIC will change for the better.

The next meeting of THIC will be tomorrow, October 19, at 5:00 p.m. in Room 121 Finley.

Negative Degrees Amuse Rapt EE's

AIEE-IRE opened its fall lecture talk by Professor Zemansky on the topic of "Negative Temperatures." Contrary to what most people expected, the lecture dealt not with extreme cold, but with the opposite—Kelvin temperatures which are hotter than infinity. If we define a new temperature scale, T' equals $-1/T$, where T is degrees Kelvin, then the following will result:

T	0	—+inf.	0
T'	—Inf.	—+0	+inf.

Because Kelvin's definition of T was arbitrary, (he chose the simplest relationship $Q/Q_0 = T/T_0$) we see that Kelvin temperature of ∞ corresponds to extremely high temperature.

It was shown by use of thermodynamics, the Zeeman effect, and the assumption of a finite system, that between ∞ K and -0 K the entropy would decrease with increasing temperature. Professor Zemansky explained the latter high temperature as attainable in a subsystem mand that detection is possible if the relaxation time (time for the subsystem to come to thermal equilibrium with system, or lattice structure if we are dealing with a crystal) is large. Detection is possible by noting the amplification of waves (microwaves of light waves) when passed through the crystal. Included in the lecture, was a hint that the Second Law of Thermodynamics could be violated if the subsystem were able to be extended.

— Horowitz

ASME

The American Society of Mechanical Engineers will present Professor Baldo of the Mechanical Engineering Dept. speaking on "Thermodynamics from a Molecular Viewpoint." The meeting will take place tomorrow in room S126 at 12:30.

INTERESTED IN G.E.?

E.E. and M.E. January 1962 graduates:

Explore General Electric career opportunities with our representatives at group meetings Thursday, November 2 at 3 p.m. or 5 p.m. in room F217. Sponsored by IRE, AIEE and ASME student chapters.

Training programs, types of engineering assignments, job locations and all your questions will be discussed.

Applications will be accepted AT THESE MEETINGS ONLY for General Electric's November 10 campus interviews.

Placement Office has further details.

GENERAL  ELECTRIC

SIC FLICS



"I understand you don't see eye-to-eye with Professor Shultz...."

21 GREAT TOBACCOS MAKE 20 WONDERFUL SMOKES!
AGED MILD, BLENDED MILD—NOT FILTERED MILD—THEY SATISFY

ENG Joins IFC; Loses Tech Status

By MARVIN KASPER

Last Friday the fraternities and sororities of the Interfraternity Council voted to accept Epsilon Nu Gamma as a colony. This followed the recent ruling by the Student Faculty Committee on Student Activities that all Greek letter social organizations that are not service organizations such as Alpha Phi Omega and Gamma Sigma Sigma, or honor societies such as Eta Kappa Nu, must be members of IFC in order to be recognized on campus. So far Epsilon Nu Gamma is the only social organization in TIIC to approach IFC in compliance with the ruling.

The fraternities voted to accept ENG with a standing of colony two status. Colony two status is the second initiative level for eventual acceptance into IFC as a member. This means that in the near future, if they meet the requirements to the satisfaction of the council and its members, they may be voted acceptable as a member of IFC in good standing.

In order to be accepted as a colony, ENG had to eliminate the clause in their constitution that requires all aspirants for membership to be engineering students. When this was accomplished the IFC voted colony status to ENG by a vote of 25-0-2.

Epsilon Nu Gamma received consideration which resulted in their acceptance to the level of colony two status because of its past association with IFC. At one time ENG was a member of IFC, and it has also been active on campus during the time it was not a member of IFC.

CE's, ME's Keep Old Curricula

Graduation will commence as scheduled for mechanical and civil engineering seniors according to Professors Hartman and Guerdan, Chairman of the M.E. and C.E. departments respectively.

Provided that the Tech building will be opened for the fall term of '62, there will be no change in the curriculum for the mechanical engineering department. The civil engineering department will discontinue two courses C.E. 112 and C.E. 114 (Materials of Engineering), for the summer of '62. Fortunately, all machinery from the laboratories will be moved during the summer session when the courses aren't given.

Both chairmen agree that trouble will arise if the Tech building is not completed on time. Professor Guerdan stated, "No student will be delayed in graduating if another major construction delay occurs. If it is necessary a makeshift laboratory will be set up."

—Javer

Fall Term Officers

ARS

Laurence Heidelberg
Daniel Goldin
Chi Epsilon
Gunther Wilhelm
Robert Horlbeck

SAME

Jerome Kohn
Joel Hanover

SeXE Celebrates 25th Year

This semester, Sigma Chi Epsilon, the social chemical engineering fraternity, celebrates its 25th year of existence at City College. Its purpose in organizing in 1936 was to provide a social outlet for chemical engineering students, who previously had no organization of their own other than the professional society. From the time of its organization to the present, the fraternity has continued to fulfill this function.

During its period of existence at the college, Sigma Chi Epsilon has boasted among its members many of the outstanding students in chemical engineering and in the School of

Technology. Among the current active members are the numbers one and two seniors in chemical engineering, the former president and a good portion of the former and current executive board of A.I.Ch.E., and a majority of the charter members of the newly formed chemical engineering honor society.

A well rounded social schedule, tutoring of Chem.E. students, and the contribution of a skit to the semi-annual A.I.Ch.E. smoker have always been and will continue to be integral parts of the fraternity's program. The brothers of SXE look forward to many more years of continued success.

South Campus To Face Public School

Since construction began on November 6, 1960, many students at City College have been wondering what is under construction on 133 St. and Convent Avenue. The construction engineers living in a trailer on the site were able to supply some information.

Across the street from City College's south campus, Public School 161 is being built by the Wilaka Construction Company. It will be a public school housing grades kindergarten through the sixth grade. The building consists of three floors and a basement. The gymnasium and the auditorium will be in the basement, which will be made of structural steel. The rest of the building will be made of reinforced concrete.

Right now the men are start-

ing the second floor decking. Next the decking on the roof will be done. Completion is expected in June, 1962. It is being financed by the Board of Education of the City of New York.

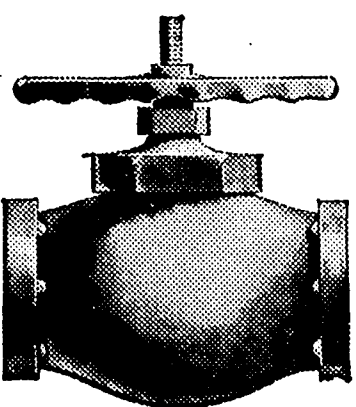
ARS Plans Strip

The American Rocket Society is planning a visit to the Picatinny Arsenal in Dover, N.J. for the end of the term of during winter vacation. As part of the day's program they will witness the firing of a rocket engine.

A.R.S. is also sponsoring a paper contest with a \$50 first prize. It is jointly sponsored by the Reaction Motors Division of the Thiokol Chemical Corp.

STOP! HOT! NO! YES! OUT! IN! COOL! WARM! MORE! LESS! SLOW! FAST! ON! OFF!

CONTROL SYSTEMS:
ORDERS FROM A COMPUTER
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GIANT OIL REFINERY UNIT



Every 24 hours, the world's largest distillation unit separates crude oil into ten different categories which end up as six million gallons of finished products.

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Just a few years ago electronic control of such a complex industrial process would have been impossible. But such is

the progress in computer systems that in the sixties it will become commonplace.

This dramatic progress means exciting and important jobs at IBM for the college graduate, whether in research, development, manufacturing, or programming.

If you want to find out about opportunities in any one of these areas, you are invited to talk with the IBM representative. He will be interviewing on your campus this year. Your placement office can make an appointment. All qualified applicants will receive consideration for employment without regard to race, creed, color or national origin. Write, outlining your background and interests, to: Mgr. of Technical Employment, Dept. 898, IBM Corporation, 590 Madison Avenue, N.Y. 22, N.Y.

You naturally have
a better chance to grow
with a growth company.

IBM

IBM will interview Nov. 22.