Shoemaker Leaves Moon to Run Geology Dept.

Dr. Eugene M. Shoemaker, distinguished authority on the geology of the earth and moon, has arrived on campus to take over as chairman of the Division of Geological Science.

Dr. Shoemaker, 40, who holds the geological field investigations of the Apollo lunar landing program, succeeds Dr. Clarence Al- ler, professor of geology and geophysics, who has served as acting chairman of the division and who will devote full time to teaching and research.

President Lee A. DuBridge an- nounced Dr. Shoemaker's ap- pointment a year ago — to be- come effective Jan. 1, 1969.

Dr. Shoemaker, a Caltech alumnus and faculty member, has been serving as chief sci- entist of the U.S. Geological Survey's Center of Astrogeology at Flagstaff, Arizona. He organized the USGS Branch of Astrogeology in 1961 and served as its chief until he was named chief scientist of the Astrogeology Center, which he organized in 1965.

In 1963 Dr. Shoemaker organi- zed the Man-Made Space Sciences Division of the National Aeronau- tics and Space Administration and established the USGS Observatory at Flagstaff for the study of the geology of the moon and planets.

He was a scientist on the televi- sion picture experiment on the series of Ranger spacecraft that photograph the moon and was principal investigator of the Surveyor spacecraft moon television (Continued on page 2)

Students Organize As CAB Plans to End Youthe Fare

by Dave Linker

It all started when two bus companies decided that the air- lines were taking a great deal of their business, which was true. National Trailways Bus System and TCO Industries Inc. (also a bus company) complained to the Civil Aeronautics Board and asked them to investigate. They asked Arthur, Present, C.A.B. mem- ber, to examine the situation.

He found that out of 24 do- mestic carriers, 11 were for keeping the student fares at ¼ price without reserved seats, for those between the ages of 12 and 21. The rest were either for a 2/3 fare with reserved seats for the same age group, or for ablating all reduced fares, in- cluding family discounts. Ameri- can Airlines were perhaps the staunchest supporters, since they originated the idea three years ago. National, Delta, and Continental already have the 2/3 plan and are opposed to the re- duced fare, which they say is discriminatory.

Official Decision

On the basis of the informa- tion he gathered, Mr. Present de- cided that student fares should be done away with. If his deci- sion is unopposed, it will become the official decision of the Board as of 30 days after the meeting (last Wednesday). If it is op- posed, the bus companies will file suit on the charges of discrimina- tion.

We come to the crucial ques- tion: what can be done to save the student fares? For starters, you can write to the C.A.B., to an airline, or even your Con- gressman. This will help to pre- vent the final decision from being made in 30 days, but the suit still has to be dealt with. This is being thought about by student groups, and the legal plan is to switch the dependence from age to proof of being a student. Two people on campus here who are working on this (Continued on page 3)

Oxy, Caltech Join Forces for Big Band Concert

by Bob Goddard

The Caltech and Occidental bands will present a joint con- cert on Thursday night, February 1, at 8:15 p.m. in Thorne Hall, Occidental College. Admission is one dollar tickets. Tickets are sold by band members, the Beck- man ticket office, or at the door.

Maps of the Occidental campus showing the parking area and the location of Thorne Hall are available from the Beckman ticket office.

The sixty-five-piece combined band will perform an ambitious program consisting largely of twentieth-century music, with a few pieces by earlier composers. The program will include Cop- land's "Fanfare for the Common Man," Prokofiev's "Tootsie," Gershwin's "An American in Army March," Rimsky-Korso- kov's "Procession of Nobles from "Piqueassion of Nobiles" from Misha, Menchu's "Una y Otra" Beef's "A Festive Overture,"

Hobst's "First Suite in Eh," Gratringer's "Iris Tune from County Jimmy," and Norman Del- lo-Jo's "Walkin' on a Moone- val Tune." This is the first time that these two bands have joined forces, but it will certainly not be the last. In the past, both bands have been handpicked by their small size; a thirty-five piece band could never play most of the pieces on this program, be- cause there would not be enough instrumentation and a full, large- band sound. This year, the two bands complete each other perfectly — Caltech's strengths are on the front, with some versatility, and both bands contribute a team of excellent musi- cians. The result of this joint con- cert is a band which would rival in quality any university or inter-collegiate bands in the area. Come and hear the result of in- tercollegiate cooperation, instead of competition. It will be an evening well spent.

Bradbury to Fly on Mugnaini's Celluloid Wings

by Alan Stein

Icarus will fly tonight in Cal- bertoon Anniversary, 8 p.m. Joe Mugnaini, artist, illustrator, and filmmaker will present his most recent film, "Icarus," and give a talk on his work. The film, a retelling of the fable of the lad with waxen wings, was filmed by Mugnaini, and the screenplay was written by and in cooperation with the artist. Mugnaini will pre- sent a talk dealing with the role of the artist in the film industry.

Joe Mugnaini is an accomplish- ed illustrator, film maker, and a teacher. He has taught at the Otis Art Institute and the Art Center College of Design. He has presented numerous one-man shows and has illustrated some Braille books. His unique style of film, which is the inspiration for this performance is free. The performance is being supported by the Caltech Art Class and the ASCIT Visiting Artists Commit- tee.
Editorial

Unfair Integration

In principle, we are all for integration. Unfair discrimination, no matter what its cause, is one of the big problems of this country. Certainly, it should never be condoned. But is there such a thing as unfair integration? We think so; it’s just been invented by some of the high-flying bean-counters in Washington, in particular, those who control air travel. They have suddenly decided that student fares should be abolished. Their reasoning is most interesting.

The whole affair began when ground transportation sued air transportation. Their grounds? They claimed that student fares were an unfair discrimination against older people. Under the Civil Rights Acts the youngsters and the oldsters should be charged the same. Actually, the ground transportation motives were more understandable. If you ever get riled in a cramped train or a smelly bus for any long distance, you will know what I mean; ground can’t compete with air on the basis of comfort, only on price. Anyway, our aeronautical legislators listened to the complaints and finally decided to table the suit. They also agreed to force the airlines to equalize all fares! Needless to say, we definitely feel that Washington has twitched badly. Next we can expect the TV producers to sue the movie houses, because they let toddlers in at half price. There is now a clear-cut case of discrimination; make the kids pay the same as adults.

If even they can’t afford it (Just as many students will not be able to afford to go home for spring vacation, anyway, unless they increase their personal sense of justice and stand in the way of the true democracy.

We can see no good reason for the airline fares to be raised. “Discrimination” is not a word for the half of it; it is an economic benefit to those who would otherwise be unable to afford air travel (and who wants to bus from Caltech to New York?). The airlines find it beneficial; if buses or trains cannot compete, then perhaps they should improve their service. We see no benefits in paying higher prices simply for the sake of making some businessmen a little wealthier. We strongly urge the government to reverse their decision, and retain student fares.

Let’s try practicing a little intelligent discrimination! Alan Stein

Dave Lewin

Get In There And Fight

As the month of February rolls upon us, it brings Valentine’s Day, Washington’s Birthday, Groundbreaking Day, and of course ASCII elections. For once we have a plethora of candidates for the presidency — six as of last count. The three new posts, those of Director of Student Life, Director of Academic Affairs, and Director at Large, are being hotly contended for by a brigade of freshmen.

However, there are eight other offices which are either void or candidates are not nominated. Over the past few months we have heard dissonance and dissatisfaction from the ASCIT Board for the interests of the “average underrepresented student” to be given the “average under­represented tickets” to get off their collective asses and get themselves represented on the BOD. After all, if you don’t do it, neither will Jack.

Shoemaker Gets Geo Picked

(Continued from page 1)

Earlier in his active career he explored for uranium deposits and oil structures in Colorado and Utah and later studied the geologic structures in the geologic-structural geologic structures of the Colorado plateau country. In 1957 he began studying the mechanism of meteorite impact processes. He confirmed the high-pressure form of silicas—coesite—in natural materials and gained a much higher logical time scale and methods of geological mapping on the moon.

Dr. Shoemaker was born in Los Angeles and obtained two degrees in geology at Caltech, a B.S. in 1947 and an M.S. in 1948. He obtained his Ph.D. at Princeton in 1960.

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97% Defects No Waiting.

Right now we’re in communications, military command and control, air traffic control, transportation, medical information, education, urban planning. We have openings for systems engineers, electronic engineers, systems analysts, mathematicians.

INTERVIEWS WILL BE CONDUCTED ON Campus, Feb. 12
SIGN UP NOW AT THE PLACEMENT OFFICE

JANUARY 30, 1969

Towering Eyeful

by Jim Cooper

With three excellent productions within a space of seven weeks, the Beckman Auditorium was undoubtedly one of the finest terms of talent presented within so short a period in the auditorium’s history.

January 2, 1969 brought the first of a trio of one-act plays to the Beckman stage, and the beginning of an exciting new year for the Beckman. After all, we can’t fret common sense and justice stand in the way of the true democracy.

We can see no good reason for the airline fares to be raised. “Discrimination” is not a word for the half of it; it is an economic benefit to those who would otherwise be unable to afford air travel (and who wants to bus from Caltech to New York?). The airlines find it beneficial; if buses or trains cannot compete, then perhaps they should improve their service. We see no benefit in paying higher prices simply for the sake of making some businessmen a little wealthier. We strongly urge the government to reverse their decision, and retain student fares.

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97% Defects No Waiting.

Right now we’re in communications, military command and control, air traffic control, transportation, medical information, education, urban planning. We have openings for systems engineers, electronic engineers, systems analysts, mathematicians.

INTERVIEWS WILL BE CONDUCTED ON Campus, Feb. 12
SIGN UP NOW AT THE PLACEMENT OFFICE
Goldman Gilds Campus

Dr. Eric F. Goldman, author of "The Tragedy of Lyndon John­
son" and special consultant to President Johnson from 1963 to 1968, will join Caltech's faculty for the spring term as a visiting professor of history.

In making this announcement, acting president Robert F. Bach­
ner disclosed that the former White House aide also will give Caltech's annual Haynes Foundation lectures early in March. Dr. Goldman is Rollins Professor of History at Princeton Univer­
sity.

Dr. Goldman, who will arrive at Caltech on Feb. 23, will give a course in the history of modern America: "Renaissances with Destiny," which won the Banc­
craft Prize in 1962, and "The Cru­

On Feb. 9 Alfred A. Knopf, Inc., will publish Dr. Goldman's book, which is the first one on a former aide.

No Comment?

It will be an alternate selec­tion of the Rock-of-the-Month Club. Excerpts have already ap­
nection with this coming exhibi­tion, Dr. Goldman will appear on such national television shows as "Meet the Press" and "Today." The publication of his book may be taken as a public comment on the administr­
ation. The volume represents his view on this era.

In his book, Dr. Goldman says of President Johnson that "in periods of triumph and down­
turns, in peace as in war, he stood the tragic figure of an ex­
traordinarily gifted President, who was the wrong man from the wrong place at the wrong time in the wrong cir­
cumstances."

Black Yard

(Continued from page 1)

credit requirements at their col­
leges. Courses are planned in the modern sciences (physics, biology, economics, literature, and urban problems). Emphas­
ships will be placed on the contribu­
tion and role of Black people in society. The final format won't be decided until the students ar­
rive.

How They Were Selected

The five students were selected by two teams of recruiters—Creasy and Vicki Vaughn from L.E.L.C.4, and Hocker and Dick Ruben­
stein. After calling the student body president at the colleges in order to stimulate interest, they went to the campus to talk collectively and individual­
ly with students. There were no specific requirements for applic­
ants regarding grades, sex, school background, etc. Students were accep­ted on the basis of reactions in personal interviews and their interest in the Black situation — what they see as im­
portant in the community. "What we wanted were independent, risk-oriented, intelligent people," says Creasy. They had to be willing to take a chance here. Some had to haggle with their parents.

The Black students will arrive about February 5 and be here until June, perhaps longer if more money becomes available. They have been allotted $600 maximum for living expenses. Hopefully at least half of the students are on campus, while the girls (5 at present) will be off-campus in apartments.

Meeting orientation will oc­
cur on February 7 and 8. The first day will be an evening of factual presentation, while the second will be an all day "emo­
tional" orientation using small discussion groups. Any student interested in participating in the meeting, or planning or taking the experimental courses, should contact Bill Hocker in Blacker House or drop by the ASCIT office.

Project Goals

Creasy lists the goals of the project as development of the SRA's, 2, important value on the Black community when the students return to the South, 3, formation of a wider association between Caltech and other schools in the Research Center, 4, possible greater re­
cruitment by Caltech of minority group students on the basis of how the SRA's interest and per­
form here, thus a further interaction be­
tween Tuckers and Black people.

Hocker adds that the project will explore new methods of teach­
ing. Both are glad to see the Center expanding to deal with Black people's problems.

The Black SRA project is a challenging program. The speed of organisation has presented administrative difficulties. There has been some trouble with the other colleges. The "original nut," says Jim Beck, director of the Research Center, "was Joe Rhodes," and developed during discussions between Rhodes and Ford. But as can be seen it will not require only the effort of the Center staff, but of a significant portion of the campus in order to succeed.

Aero Granted

Support for Caltech, home of Guggenheim Aeronautical Lab­
oratory, has been pledged by the Martin Marietta Corporation, a

Sikorsky Aircraft

Representatives will be on campus to give

engineering opportunities to seniors and graduates complete details on

with the pioneer and leading manufacturer of VTOL aircraft

C O L O N I A L I O N

Alumni notices are printed as space

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In 4 words starting with the letters R-O-B-S, give your description of the

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The International Coffee Organization invites you to

PUT ON YOUR THINKING CUP

In 4 words starting with the letters P-O-L-K, give your description of the
CALIFORNIA TECH

Thursday, January 30, 1969

Teckers Regard Corps

This is the second of a series of articles about the Peace Corps. Peace Corps representatives will be on campus to work the week of Feb. 10.

During the spring of 1969 the Peace Corps will train 1,405 Volunteers for service in 25 of the country's Peace Corps programs. Volunteers are at work. This represents an increase of 300 over the opening year, when they were available during the same training cycle in 1966.

Training is provided for 55 programs in such varied fields as education, health, co-operatives, fisheries, and community development. Each program carries a portion of the training which will take place in the country where the Volunteers are to serve.

Here are examples of the programs:

In Venezuela single women Volunteers, with background in home economics, social work or liberal arts are needed to work with the Division of Rural Housing to help bring better sanitation in new communities. Volunteers will work with individual families and community leaders to promote better health through community, home site and house improvement projects.

In India, some highly skilled Volunteers are needed for a special education program to help develop and improve primary schools. Work will be on the Teleng, teaching English as a second language, methods and supervise teaching in basic training schools and retraining centuries through middle level education.

In Indonesia, the Peace Corps is looking for someone with a master's degree, or else to experience in a TELF program. The position would involve language instruction in basic training schools and retraining centuries through middle level education.

In the West Pacific, the Government of Fiji wants Peace Corps Volunteers to help step up the country's food production and help develop some natural resources.

Volunteers with farm or ranch backgrounds, training in agriculture or liberal arts will work in animal husbandry field, teaching in various schools and doing field work in growing regions.

Volunteers are needed to operate forest stations and train the badly needed personnel for the Fiji government for the protection of forest.

Volunteers with geology degrees will help carry out a much-needed systematic geological mapping of Fiji's entire 7,600 square miles. They will also train local personnel for the geological survey department.

Volunteering in Peace Corps mechanics will help train the 200-300 Guinean mechanics needed within the next year. Volunteers will work in the capital Conacry for government military, doing many types of work on the job training in equipment repair. Men are needed with background in automotive mechanics, diesel, heavy equipment, machine tools, industrial-electrical, diesel fuel systems, and reworking motors and generators.

These programs, and many more, begin training January - March, 1969. To find out more about how your skill or background could be used, write to the Peace Corps, contact your Peace Corps liaison on campus or write to: Peace Corps, Washington, D.C. 20525.

Fourth?

By Robert Belle

North

H 4 Q 3

D 8 A 8

C 10 J 3

West

M 7 E 5

H 2 9 6 5

H K 8 2

D K 15

O 9 Q 9 3

C K 7

South

A 5

H A 7 4

D 6 4 2

Neither vulnerable

The bidding:

South

West North East

1 S Pass 2 C Pass

1 D Pass 2 S Pass

West led the ten of hearts

Most players are familiar with prepared premelts on short suits, made to facilitate a rebid. There are situations similar to this larger in the auction, in which it is necessary to bid a three card suit in order to solve rebid problems. Today's hand, played last weekend in the Torrance Sectional, serves to illustrate this point.

After North's response of two clubs, South was too strong to rebid two spades and had no other convenient action to take. Technically South's correct rebid is two hearts. Although he was quite aware of this, chose to make the deceptive rebid of two diamonds.

If his partner was nasty enough to raise him, he would bid three hearts, to request his partner bid three no-trump. However his partner bid two spades, showing a raise to a two and a half spades, South then jumped to four spades, ending the auction.

It is doubtful that West would have led a diamond in any event, but the two diamonds rebid made it absolutely certain that black was the dummy.

The heart opening was covered by king, jack and ace. South, in light of the fact that he was playing match-point, set out to force his contract at the expense of possible overtricks. He cashed the ace and king of spades, and led ace and another club.

West shifted to a diamond which lost his king but it was too late. South discarded two diamonds on the high clubs, then one club, one heart, and one spade, making his contract exactly.

BOD Power Seduces Gung-ho Fresher

As of 12 midnight, January 28, the following people are running for ASIIT position. The election for the office will be held on February 13.

Running for President are Ed Schroeder, Bill Hocker, Sam Keys, Pete Wilhafch, Stephen How and Alan Higbee.

Pete Saulovits is running unopposed for the office of Vice President. Jerry Horszbak is running for ASIT Secretary. Steve Pess is also running for ASIT Secretary. HIC Chairman.

The office of Director of Student Life is being sought by Mike Aaranson and Bob Langill. Ferto Kassman and Jeff Ross are running for Director of Academic Affairs.

Jonathan Post, Alan Brink- stone, Gary Stormo, Larry West- terman, and Francis Clark are running for the office of Director of Labor. It should be noted that two people will be elected to this office. At least one of these must be a freshman. However, since all the candidates running are freshmen, the second of the positions will be held by a freshman.

Robert Fleber is running for the office of DIO Secretary, and Ira Moskelt and Craig Saran are running as a team for Tech Editors.

No one has yet applied for the offices of Social Chairman, Ac­ tivities Chairman, or Athletic Manager. Nominations close on February 3. The candidates should have campaign statements of about 300 words submitted to the Tech Office for publication by 9 p.m., Monday, February 3.

PHILCO- FORD W ILL JOIN THE CLASS OF 68

PHILCO- FORD W ILL JOIN THE CLASS OF 68

JOINING PHILCO- FORD

Kade Business

How About You?

If you are the "class of 68" and want to be at the top of your field by '73, then join the company that offers graduates a realistic opportunity for self-actualization. Philco-Ford is a recognized industry leader, and the resources to make the world a better place in which to live. Our committed men and women are leaders in the electronics field. Philco Corporation, a GE Company, 600 Broad Street, Pa., 9134.

STUDENTS, if you need HELP in fulfilling your language requirement - inquire about tutoring services at

BERLITZ, THE LANGUAGE CENTER

1188 W. 11TH Ave.
PASADENA
SY 5-3888

For state-wide testing on campus, write to: Testing Services, Room 349, California Institute of Technology, Pasadena, Calif.

Thirdly, the Peace Corps is seeking people with some background in forestry, or else have experience in forest survey work. The Peace Corps has requested the people who are needed to work with the Ministry of Agriculture or forestry, to fill these positions.

For application write to:

David Hyrro, Frank Garcia, Mike Fambrano, Pete Tabet, 450 Esperson Ave., San Jose, Calif. 95127. Phone: (209) 605-9283.

Curt Mekonnen, Federal Office Building, Room 304, 9th and 12th Streets, Sacramento, Calif. 95814. Phone: (916) 443-2888.

Jim Brown, Gene Hackman in RIOT

in color

by John Philip Low in DANGER: DIABOLIC

STUDENT RATES

ESQUIRE THEATRE

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SY 5-3549

NUN 4-1774

Aske General Employment Opportunity
Caltech's ducks swam to victory over the University of California at Riverside, 76-34. Sheffield led the swimmers as he had for the whole season with three firsts — the 100 free, 500 free and 200 fly.

The 400 yd. medley relay team of Wright, Stefanko, Hall, and Hight was second. Hall took a third in the 1-m. dive.

Two Swim, Jog in Vegas

Last Saturday, two Teckers braved the weather and ran in the Las Vegas Marathon. After sloshing through rain and then being unable to see in dense fog, Martin Smith took 30th while Dave Hornsby was 98th. The race was won by Occidental star Bob Deline.

Athletic managers are reminded that broad jumping is part of intramouse track.

Beaver Hoop Needed Twice

The Beaver hoop team was doubly truncated over the weekend as they lost to Occidental, 111-61, and to Whittier, 82-59.

The stronger and taller Occidental team outboarded the Beavers. The Teckers were unable to penetrate Oxy's tight zone and only made a third of their shots. Occidental's team drove on Tech's mat-to-man all night as they made half of their shots. However, at the foul line, the Beavers outshot the Oxy team 65%-60%. Helnit led all scorers and rebounders with 17 and 16 respectively while Ault had 12 points.

Tech outboarded Whittier as Helzn collected 11 and Koenig, 10. However, Tech shot poorly and had 39 turnovers with 20 in the first half. Whittier was too quick on offense and defense as they bounded on offense and blocked many shots. They also collapsed on the ball player which prevented the good shot, and there were at least two Whittier players converging on every play. With all of this pressure, the Beavers only made 31% of their shots compared to Whittier's 50%. They also shot poorly from the foul line with only 42% going in. Helzn and Fox led all scorers with 15 points apiece.

The Beaver Babies also were beaten as Occidental and Whittier downed them by the respective scores of 94-54 and 111-71.

Null, Void

The Interfraternity Track Championships were held yesterday in a secluded room in the Athletic Track. Twenty contenders, none of whom had ever heard the rules before, gathered to compete in this nine hour event. The judges were unable to locate a set of rules, and held the tourney to be null and void.

Serendipity, Morality, War in Vietnam at Y

The Caltech YMCA has completed plans for the winter term of its traditional Altheaum Lowell Forum. Three speakers make up the roster for the Wednesday noon gathering from Feb. 5 through March 5. The luncheons are open to the public.

On Feb. 5, Albert Hanhovst will speak on "America's Dilemma in Vietnam." Ravenhall, a member of the American Universities Field Staff since its founding in 1951, has visited Caltech many times. He specializes in the Far East.

Good Living

Feb. 12 will bring Dr. William May, dean of the Graduate School of Sociology at USC, talking on "The New Morality: Hooly Trap or Pot of Gold?"

Dr. Roger Noll, associate professor of economics at Caltech, will be the speaker Feb. 19. Dr. Noll has been in Washington, D.C., the past 18 months with the Council of Economics Advisors, executive office of the President. His topic will be announced.

Really Quite Dull

"History and Mysticism in the Protest Movement" will be the topic on Feb. 20 of Jerry Atkin, assistant Dean of students, UCLA Counseling Center.

The series will conclude with the appearance March 5 of Dr. Sam Keen. A member of the Louisville Presbyterian Theological Seminary faculty, Dr. Keen will speak on "Education for Serendipity."
HELP WANTED

STAFF

Great opportunities available for eager young reporters capable of writing large quantities of news. News does not need any basis in fact — only to fill space.

Earn Graft, corruption, fame, fortune.

See your name in print

Prevent stupid space filler like this

Argument conceptions of typical cultural activities pursued by Teckers during visit to Scripps.

Caltech-Scripps Exchange

Whittier to Hold Draft Confab With Cranston

The draft has become a hot topic across the nation. Locally, a conference on Conscription and the Draft will be held Saturday, February 8, at Whittier College in Arnold Hall, the Music Building. The conference, which is open to men and women, draft age and older, will run from 9:30 a.m. until 5:30 p.m.

U.S. Senator Alan Cranston will deliver the keynote address: “Is It Time to Abolish the Draft?” Three scholars, holding diverse positions, will round out the day’s presentations.


Terrance Cullinan, a former Fulbright scholar now serving as a Manpower Economist with Stanford Research Institute, will argue in favor of a system of “National Service.”

Ben Souver, a peace education secretary for the American Friends Service Committee and a regular commentator on Radio KPFA, San Francisco, will provide “The Case Against.”

Conference participants will form small groups to discuss the issues raised by the speakers and consider proposals for action.

Sponsor of the conference is the American Friends Service Committee.

Reservations should be made prior to February 5 and sent to the American Friends Service Committee, P.O. Box 991, Pasadena, Calif. 91102. The registration fee is $2.50 for students ($4.00 for others) plus $1.25 for a luncheon reservation at the Campus Inn. Reservations should include name, address and school affiliation.

While You Are Up, Get Me A Grant, Please?

Edward P. Hanak, a member of the development group at Caltech for three years, has been named to the position of director of development at the Institute.

Hanak, 40, formerly director of foundation relations on the development staff, has assumed responsibility for Caltech’s ambitious continuing development effort, which aims at securing funds for endowment of faculty salaries, for construction and modernization of facilities, and for continued operation of research and teaching functions.

Hanak, a native of Ohio and graduate of Ohio University, Hanak worked with the Greater Cleveland Foundation and helped develop the growth board, an arm of the Cleveland Chamber of Commerce to Cleveland.

Hanak will continue to serve as director of foundation relations while he assumes his new duties as director of development.

What some facts about Collins:

1. Collins pioneered many of today’s data techniques and recently announced a computer-controlled design and manufacturing service for customers.
2. The company ranks as the largest independent producer of microwave systems.
3. More than 75% of the commercial airlines use navigation/communication equipment supplied by Collins.
4. The company designs and installs computer systems for the military and for railroads, airlines and many other industrial organizations.
5. Collins serves as the prime contractor on NASA’s worldwide Apollo tracking network.
6. The company is recognized as one of the world’s leading manufacturers of commercial broadcast equipment.
7. Collins received the first contract awarded to a single company to design, equip and build an earth station for satellite communications.

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Towering Tinkle Plays On

(Continued from page 2) only in recent years that the George Bernard Shaw. He thus looses some of the reality which Holbrook's presentation of Twain maintains.

This writer must admit, however, a strong preference for the works of Mark Twain over those of Shaw.

Chorale Corral

Topping off the week at Beckman last Saturday night was an appearance by the Roger Wagner Chorale. Little needs to be said of the recognized excellence of the group under Wagner's direction, and the program presented — ranging from George Schuh to "Joshua Fit the Battle of Jericho" — fully justifies their reputation.

Generally, the soloists of the group were very good, with the possible exception of soprano soloist Jeanne Wagner who sang a boy's soprano solo in Psalm 23 of Leonard Berstein's work, Chichester Psalms. One got the uneasy feeling that either Miss Wagner, Bernstein, or the accompaniment missed several notes; and in any case, the soloist did an excellent job in each of the other selections, and as for Bernstein, whether or not he misses a note often a subject of debate.

The two solos particularly enjoyed by this writer were those of soprano Brenda Fairiday in "Rico Grande," and baritone John Mack Osley in "Bhemidibah."

In any event, a fine evening of entertainment was had by all and the audience kept the group working with several encores, including "Dem Bones," and "Folly Wolly Doodle."

Repertory Dance Repeats

On Saturday, February 8, at 8:30 p.m. in Caltech's Beckman Auditorium, the Repertory Dance Theatre at the University of Utah, returns to Caltech's Beckman Auditorium, Pasadena, for a repeat performance.

Since the company's concert at Caltech a year ago, RDT has achieved national prominence. The eminent critic of the New York Times, Clive Barnes, has seen fit to cover the work of this dynamic, youthful modern dance company in two comprehensive stories. Dance Magazine devoted its April cover story to RDT and the Saturday Review of November 16 refers to the dancers as "highly accomplished, faultlessly rehearsed, versatile ... and as striking as any modern dance soloists ... you would find on Broadway ... Add Tim Wengd to the roster of stellar men dancers."

The company's comprehensive repertoire created by well-known luminaries of the dance world also includes works created by RDT members themselves. Call 738-7943 for ticket information and a brochure. And if you are a dance teacher or a student of dance, ask for information about the special Friday, February 7 performance for the aficcionado.
Marketing at IBM

"Working with company presidents is part of the job."

"I'm pretty much the IBM Corporation in the eyes of my customers," says Andy Moran. "That kind of responsibility's not bad for an engineer just two years out of school."

Andy earned his B.S.E.E. in 1966. Today, he's a Marketing Representative with IBM, involved in the planning, selling and installation of data processing systems.

Plenty of business experience

"Engineering was my first love," Andy says, "but I still wanted good business experience." So far, he's worked with customers involved in many different computer applications, from engineering to business. His contacts go from data processing managers all the way up to the president of his largest account.

"At first I was a little nervous about working at that level," says Andy. "But then you realize you're trained to know what he's trying to learn. That gives you confidence. You're helping him solve his problem."

With his working partner, the data processing Systems Engineer, Andy has helped many customers solve their information handling problems. "I get a broad overview of business because I run into every kind of problem going. Sometimes I know the solutions from experience. Other times I need help from my manager."

"That's one of the best things. My manager is more of a backup than a boss. He's there when I need him. Usually, I pretty much call my own shots."

Andy's experience isn't unusual at IBM. There are many Marketing and Sales Representatives who could tell you of similar experiences. And they have many kinds of academic backgrounds: business, engineering, liberal arts, science.

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