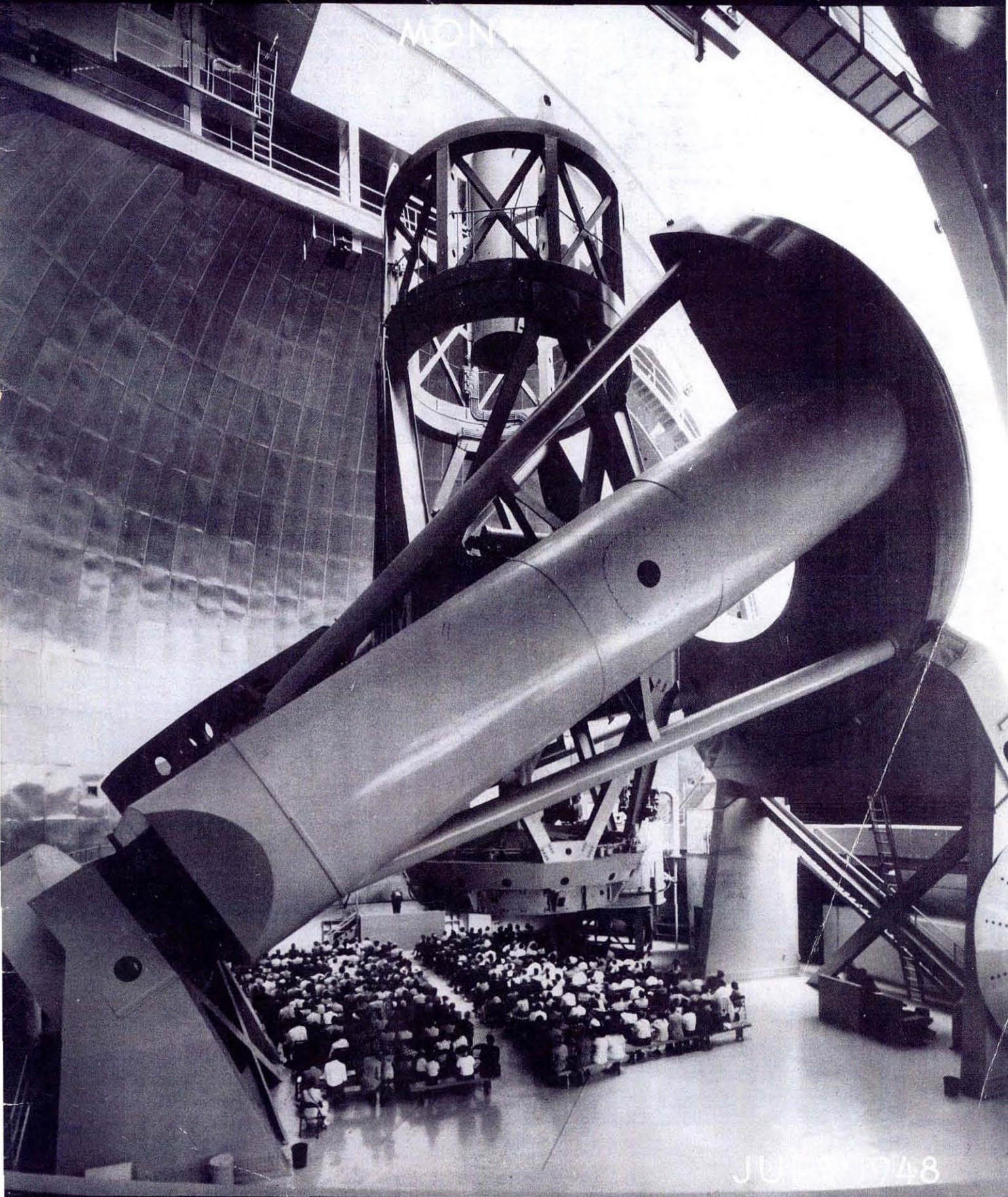


# ENGINEERING AND SCIENCE



JULY 1948



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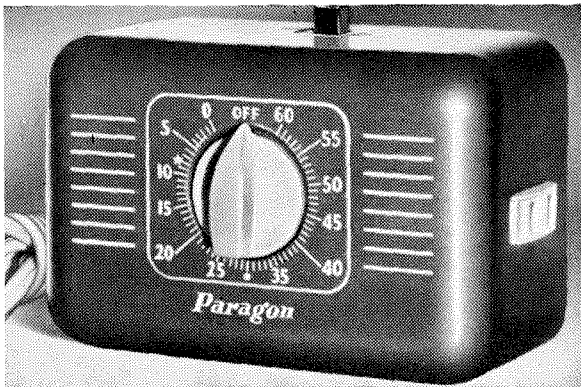
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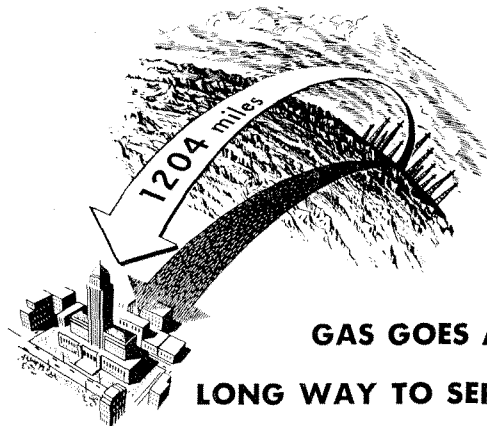
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## With the Editor

With this issue we complete our first official year as Editor. To all of our authors, letter writers, news contributors, and advertisers go our warmest thanks—you have made the magazine possible.

As a result of a more restricted advertising income than we experienced during some of the war years we have been required to keep to a smaller number of pages than we wanted to and as a result we have not always had space for all material submitted. When we foresaw difficulty about a year ago we began to study various suggestions for improving our situation. Discussions of the magazine resulted in some rather long and late meetings of the Board of Directors and in a good many special meetings with and without Institute staff members.

Now, as announced at the annual meeting at the Athenaeum in June, we have embryonic plans for expansion of the magazine with greatly increased Institute aid. We plan to make the magazine not only larger, but better. We have engaged a professional journalist of top rank to manage the magazine. He is introduced on page 8. We don't know how quickly we can accomplish the improvement and expansion planned but we foresee some rather hard work during the transition period.

We haven't yet definitely determined what the character of the new **Engineering and Science** will be but we expect to have it tell more of what the Institute is doing.

There are potentially many interesting stories on the campus but in the past we haven't had the time or ability to dig them out and write them. We hope now to do some of these each month. It is planned to maintain an alumni characteristic of the magazine, so we shall continue to ask our members for articles. And let me remind some of you who have promised to write that we still want to receive your contributions.

We want also to continue to publish news about our alumni—so please continue to send in reports of marriages, births, deaths, changes of jobs, papers you have presented, trips you have taken, and all of the kinds of personal items you enjoy reading about your friends.

• • •  
Writing about personals reminds us of what we have just learned in preparing the news notes for this issue.

As a result of the vacation and honeymoon of our News Editor, Miss Pearl Tolmsoff, who is now back on the job as Mrs. Peter Tolmasoff, and the heavy burden on our Managing Editor, the Editor was required to prepare the news notes. We were handed a big folder containing pages torn from magazines, several letters, post cards, an envelope full of clippings from clipping bureaus, and a number of longhand notes, some taken from telephone conversations, we suspect.

Our first impression was that we had material for at least four pages of personals and that there would be much left over. We worked at the job three evenings and produced about forty items. Then we counted the number of items per page and found that we had about enough for one page. By going through the material again, we were able to pro-

(Continued on Page 13)

# ENGINEERING AND SCIENCE

Monthly



The Truth Shall

Make You Free

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## ENGINEERING AND SCIENCE MONTHLY

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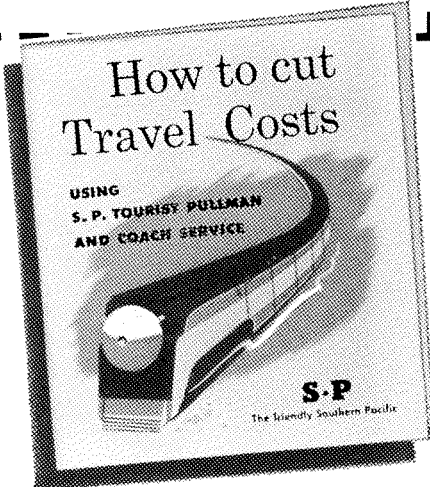
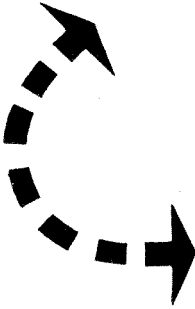
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### COVER CAPTION

One of the few pictures ever made showing the entire 200-inch Hale Telescope on Palomar Mountain. This was taken June 3, 1948 at the dedication of the Observatory, and shows half of the almost one thousand guests present. Further details of this June event are given by George Hall in his story on Page 6. The June 1948 issue of **ENGINEERING AND SCIENCE MONTHLY** is devoted entirely to the Observatory. Photograph by Edison R. Hoge.



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# ENGINEERING AND SCIENCE

*Monthly*



Vol. XI, No. 7

July 1948

## Outlook for the Association Next Year

By HOWARD LEWIS

At the June 11 annual Dinner Meeting of the Alumni Association, Howard Lewis made the following remarks on accepting the presidency of the Association for the 1948-1949 year:

**T**HE strong group of directors you have chosen for the coming year and the fine understanding which has developed between our Association and our Alma Mater, guarantee us an outstanding Association program for the coming year.

In the past two years we have done a great deal of thinking and talking among ourselves and with the Institute staff about the place of the Alumni in the Caltech community and the reasons for the existence of an Alumni Association.

The Alumni and the Institute Administration agree that:

First, the Institute's product is its Alumni. The standing of its Alumni in the community and in their professions is the best measure of the success of the Institute

Second, the Institute owes its Alumni, (its foster sons) a continuing interest in them and in their welfare

Third, the Alumni owe their Alma Mater (their fostering mother) a continuing interest in her welfare

Fourth, the respective obligations of the Institute and its Alumni, each to the other, are independent and should not be considered as elements of a trade or an exchange.

Both the Institute and the Association have taken and are taking positive steps to implement this philosophy.

The Alumni Association is, of course, a voluntary organization of the Alumni of Caltech. Its purpose in life is to help the Alumni maintain contact with each other and with the Institute. From the Institute's point of view, an Alumnus is an Alumnus, whether he is a member of our Association or not, but, of necessity, the only way the Institute can maintain effective contact with its Alumni is through organized channels. No matter how earnestly the Institute may wish to

discharge its obligations to its Alumni, it cannot reach those prodigal sons who are not members of the Association and do not notify us of changes in occupation or address.

For his part, an Alumnus can, if he chooses and if he has the time and inclination, do a great deal for Caltech without being a member of the Association, but with the limited time and with the other obligations most of us have, we can accomplish far more by collective effort than we can as individuals.

Our plans for next year do not contemplate any great changes in the activities of the Association.



Howard Lewis '23, now president of the Alumni Association, entered C.I.T. when the Institution was still the Throop College of Technology. After graduation he continued his education at Cornell, where he acquired an M.E. degree.

Howard spent six years with the Hughes Development Company and Multicolor, Ltd., a laboratory processing motion picture film. Starting all over again when these enterprises retrenched in the depression, Howard turned to development work, and in 1940 he and Glen M. Larson formed the Lewis-Larson Company. They equip-

ped a Los Angeles building to serve as offices, laboratories, and experimental shops for 12 to 15 men. There they gathered a group of varied talents able to do justice to almost any engineering problem. The efforts of the Lewis-Larson Company have been devoted primarily to serving the smaller business which does not require enough engineering services to maintain a staff of its own.

He was elected to the Board in June 1946, and served as chairman of the Fund Study and Institute Relations Committees. Last year Howard was vice-president, and chairman of the Fund and Institute and Student Relations Committees.

We hope that, with the co-operation of the Institute, we shall be able to produce a better magazine of more general interest; we hope to continue to improve our meeting programs. Perhaps, if it can be arranged before the Hale telescope at Palomar goes on a regular schedule of observations, we can schedule a trip to Palomar. We should like to increase the participation of Alumni in conferences or seminars with students to help the students orient themselves in relation to the world outside. We hope that more Alumni will join the Association and that more members will volunteer to help in the work of the Association. We hope that three or four times as many men as have contributed to our fund program this year will support that program next year. We particularly want to attract more men who did their undergraduate work elsewhere and graduate work only at Caltech, for this group is growing very rapidly.

We hope more Alumni will offer constructive suggestions for improving our Association.

In short, we want more Alumni participating in every phase of our Association's activities. The Association does not consist of nine directors and four officers; it does not consist of the twenty-five or so men who serve on committees, the 300-odd who participated in the fund canvass or the few hundred who attend one or more meetings each year. Our Association is over 2,000 strong and should be much larger. Working together we can move mountains. Please don't wait till you are asked to help on some particular job; there are many things of many types to be done. I know each of you would enjoy doing some of these things. If you'll tell us what you'd like to do we'll be only too glad to have your help. Your satisfaction and enjoyment of your Association will increase as some power of the part you play in its activities.

---

## PRESIDENT'S REPORT TO THE ANNUAL MEETING

By MORT JACOBS

Mort Jacobs, president of the Alumni Association for the 1947-1948 year, gave the following report on the Association's progress:

**F**IRST in order is a comment on our finances. Like all outgoing Presidents I should like to report an excess of income over expense. Unfortunately this cannot be done this year; for we shall show a deficit of several hundred dollars. We should have been approximately in balance in spite of higher costs of nearly everything and some tough problems in connection with publishing our magazine **Engineering and Science** except for one thing: we published our first post-war Directory costing about \$900.00.

Under our administrative policy this year individual Directors were made responsible for individual activities or groups of activities, and I shall report by these groupings.

(1) Membership and Chapter activities have been under the direction of Director Doug Sellers. Bill Holladay has served as Chairman of the Committee, and both men have done excellent jobs. Membership at the year's close was 2,066 as against 1,888 a year ago, indicating healthy growth. Included in these figures are Life Memberships of 384 as compared with 354 a year ago. In addition to San Francisco and New York, there are now active Chapters in Boston and Chicago, also indicating progress.

During the year our warm friend Professor Sorensen accepted an Honorary Membership in our Association, tendered in recognition of his extraordinary service to and high interest in our Association throughout his many years on the faculty. Other Honorary Members, as most of you know, are Doctor Millikan, Doctor DuBridge, Professor Clapp, Professor MacMinn, and Charles Schwieso. The latter many of you knew as the Campus Y.M.C.A. Director who gave our Association much support in its early days.

(2) Director Fred Schell, with an assist from Director Edison Hoge, has ably guided the Program, Social, and Seminar activities. Past President Fred Peterson came back for more this year, serving as Chairman of the Program Committee. One Southern California membership meeting was held in October in Pasadena, at which Mr. John Despol of International Steel Workers Union was speaker. At another in Pasadena in December Lt. Gov. Goodwin Knight spoke. Attendance at each was about 80. In addition, the Program Committee handled plans for the Annual Banquet at the Athenaeum in Pasadena, June 11.

Joe Peterson (no relation to Fred) has been Chairman of the Social Committee, which staged a highly enjoyable theater party at the American Theater, Farnsworth Park, Altadena, in February. "Sheila" was the play, and attendance was over 250. In March a dinner dance was held at Oakmont Country Club, Glendale, with 200 attending. Both functions offered Alumni an opportunity to bring their ladies.

In April the 1948 Seminar was heralded by a record breaking attendance of 487 men and women as the "best ever", to the credit of Chairman Carl Tutschulte and his committee. Inaugurated this year was a program of speakers for the ladies, which definitely made a hit. Included were lunches served in the Student Houses for the men and in the Athenaeum for the wives, a ladies' tea, and a joint banquet with Dr. DuBridge as the speaker in the evening, which was attended by 322.

(3) Director Jim Bradburn has guided the publications activity and preparation of the directory and manual of operations. Past President Harry Farrar, like Fred Peterson, also came back for more and has effectively handled a tremendous job as Chairman of the Publications Committee and staff, which produces **Engineering and Science Monthly**. The magazine has faced plenty of tribulations this year as advertising revenues continued to decline following the

wartime spending spree. Some of the issues were reduced in number of pages, but I am confident the membership will agree the quality of our magazine has been well maintained. During the year a special joint committee was formed, with representatives from the Association and from the Institute. Its purpose is to develop plans for expanding **Engineering and Science**, increasing its usefulness to the Institute at the same time maintaining its usefulness to the Association, and sharing the increased costs on a basis that I think cannot but redound to the welfare of our sometimes sorely pressed budget.

Armand DuFresne, as Chairman of the Directory Committee, is to be commended for publishing this month our first post-war Directory of Alumni names, addresses, business and personal information. This is a difficult project at best; the more so when plagued by soaring costs. Copies will be furnished to members free, and sold to non-member alumni at \$1.00. I hope you have yours by now.

Mention should be made of the completion this year of a so-called "manual of operations", which is a complete documentation of administrative policies, practices, and procedures for guidance of officers, directors, and committees. Begun several years ago, it was put in final form by Carl Friend.

(4) Director Wendell Miller has been responsible for maintaining our contacts with athletic activities. This year for the second time a joint Tech-Oxy alumni football lunch-rally was held prior to the Tech-Oxy game. Indications are that it will become an annual affair for the footballers, who expressed enthusiasm for the get together of the two college alumni groups.

(5) Vice-President and Director Howard Lewis has been in charge of the Fund program this year. He also served as Chairman of the Alumni-Student Relations Committee and of the Alumni-Institute Relations Committee, contributing a prodigious amount of time, interest, and work to these as well as many other Association activities.

The important Fund program was developed and launched this year by a Fund Committee of which Director Joe Lewis (no relation to Howard) was Chairman. I am certain you know of the objectives of this "biggest" of our Association's projects. You will hear a separate report on it at this Annual Meeting. The hearts of Joe and his committeemen are in this program, and I hope most fervently that the membership will "deliver the goods".

Alumni-student relations is a promising field which Howard Lewis has been cultivating this year. Talks by alumni speakers were arranged before joint Technical Societies meetings, and contacts between the Association's Board and the Student Body President have been cooperative and fruitful.

Our Alumni-Institute relations can only be described as excellent. At the hands of Dr. DuBridge we have had optimum cooperation, and it is apparent that mutuality of interest is high and continues to increase. It is gratifying to hear alumni described as the Institute's chief product; and we are quick to define support of the Institute in every possible way as a major purpose of our Association. I would like to take this occasion to express through Dr. DuBridge our sincere appreciation to the Institute; and to our emissary Howard Lewis, our hearty commendation.

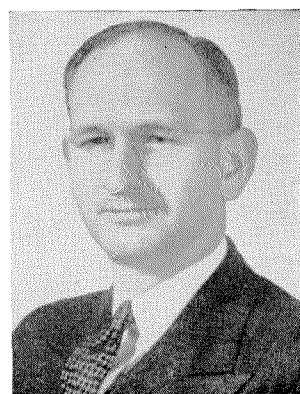
(6) Immediate Past President and Director Al Laws has been in charge of finance and budget, and needless to say his experience and advice have been pillars of strength in this important quarter. He has also served as Parliamentarian, and kept the Board's deliberations "on the beam" at many a borderline.

Last, but by no means least, I wish to comment on the exceptionally thorough and competent jobs done this year by "Hank" Freeman as Treasurer, and Dr. Don Clark as secretary. No administration could ask for more willing support in these important offices than we have received from these two men this year. Your books and records are in excellent condition.

Under Don Clark's supervision the placement service, conducted cooperatively by the Association and the Institute, has been effectively active. Attention has been focused on placements of both alumni and graduating seniors, with excellent results.

Now, I realize that this has all sounded more like a recitation of names,—a "throwing of posies" process,—than a report of activities. But it has become my sincere conviction through the year that our Association's accomplishments consist of personal contributions of a relatively small group of persons, far beyond what might ordinarily be expected. For this fact our Association may be congratulated and count itself fortunate. I wish to record here my personal thanks to all the officers, directors, committee chairmen, and committee members, whose cooperation and service has been so freely forthcoming through the year.

Not only has it been my privilege and pleasure to serve the Association for the past two years, but it has given me greater realization of the purposefulness and objectives of the organization. I wish every alumnus could serve it in the same way. If I may be permitted one recommendation to the membership, it is that more individuals seek opportunities to serve the Association on committees or in other ways. Surprisingly, the rewards will amply repay the invested time.



Mort Jacobs '28, received his B.S. degree in mechanical engineering. His undergraduate interest in organizations—Mort belonged to seven—has continued since 1928, and today he is active in the Pacific Gas Association, the Los Angeles Athletic Club, Masonic Lodge, Sales Managers Association of Los Angeles, Lions Club, and Los Angeles and California State Chambers of Commerce.

After graduation Mort worked in industrial equipment and power plant design for Collins Western Corporation of Los Angeles. In 1930 he entered the Southern California Gas Company where he has risen from industrial service engineer to manager of general sales.

After election to the Board of Directors in June 1946, Mort was named vice-president for the 1946-47 year. He was also chairman of a committee which drafted necessary changes in the By-Laws. This work was finished in May 1947, and in recognition of his service he was elected president of the Association that June.



# C. I. T. NEWS

## THE MONTH OF JUNE AT CALTECH

By GEORGE HALL

**T**HE CASUAL PACE at which the academic year drifts to a post-commencement summer slow-down was noticeably absent at Caltech this year. In fact, June not only came in with a roar, it ended on the same note with the first and last chords rolling off the top of Palomar Mountain.

The dedication of the Palomar Observatory, Commencement, a three-day Symposium on Cosmic Rays, a three-day meeting of the American Physical Society, a four-day joint get together of the American Astronomical Association and the Astronomical Association of the Pacific, plus two days of meetings on Heat Transfer and Fluid Mechanics problems, were all packed into 12 June days.

If there have been busier June days in the Institute's history, old timers on the campus were unable to recall them. The Palomar Dedication, covered in the June issue of *E and S*, set the pace when some 850 invited guests plus more than 100 press and radio representatives gathered beneath the 200-inch Hale telescope in the big observatory dome on June 3 for a ceremony that lasted just short of an hour and a half.

Commencement followed on June 11 in the same grandiose manner, when the largest class in the history of the Institute was graduated—501 students. Of this number 189 received degrees of Bachelor of Science, 217 degrees of Master of Science, 52 Engineer's degrees and 43 degrees of Doctor of Philosophy.

Commencement speaker was Dr. Vannevar Bush,

President of the Carnegie Institution of Washington, D. C. who had also been one of the Palomar Dedication speakers.

Taking as his subject, "The Freedom of Science,"\* he stressed need for freedom of the individual scientist to "pursue the search for truth wherever it may lead him and without coercion by those who would use him and his findings for their mundane purposes. Hence, we require the absence of political pull, of the arbitrary use of power or position, of all else that tears men down. And we require governing bodies that truly recognize the nature of science and conditions under which it can flourish. These conditions mean a system where masters, selected by their colleagues, because of their intellectual power, are surrounded by disciples on the way to mastery, where there is a free field and no favor, and where there is rigorous and undeviating following of logic in pursuit of the truth.

"This is the system in which we believe. It is now under challenge on two fronts," he said. "One front is that upon which there are those who say that the race in its mad competition for the applications of science, in a world where power rules, is on the way to commit suicide." The other front is that upon which we face the challenge of those who regard science as merely one servant of the state, he said. It was this second challenge, which he further characterized as "a part of the great clash of ideologies; on the one hand the ideal of the dignity of man and the blessings of liberty and on the other hand the ideal of the powerful state bringing all means and all men under its centralized control as the only hope for an exit from chaos" to which he chiefly directed his address. He left no doubt but that it is his opinion that national support of science for both research and development of men qualified to lead in research in the future is not only possible but desirable; that a National Science Foundation as now envisaged as workable and necessary, and that it can be operated for the benefit of man without hindering the freedom of science or the scientist, providing necessary limitations are recognized.

President Lee A. DuBridge reviewed another year of Caltech progress. He announced that total gifts for the year amounted to \$1,700,000 of which \$493,000 was from various sources for research projects; \$700,000 from the Rockefeller Foundation in support of a seven-year program of research in chemical biology; \$300,000 was a Rockefeller grant for completion of the Palomar Observatory and \$207,000 an additional grant from the Earhart Foundation to finance a new air-conditioned plant physiology laboratory.

He gave special attention to the California Institute Alumni Association drive for an Alumni Fund, stating that of its initial goal of a quarter of a million dollars \$68,000 had already been pledged or received. Similar

\*Full text being printed in the INSTITUTE FORUM and mailed to alumni in near future.



Academic procession at Commencement, July 3.

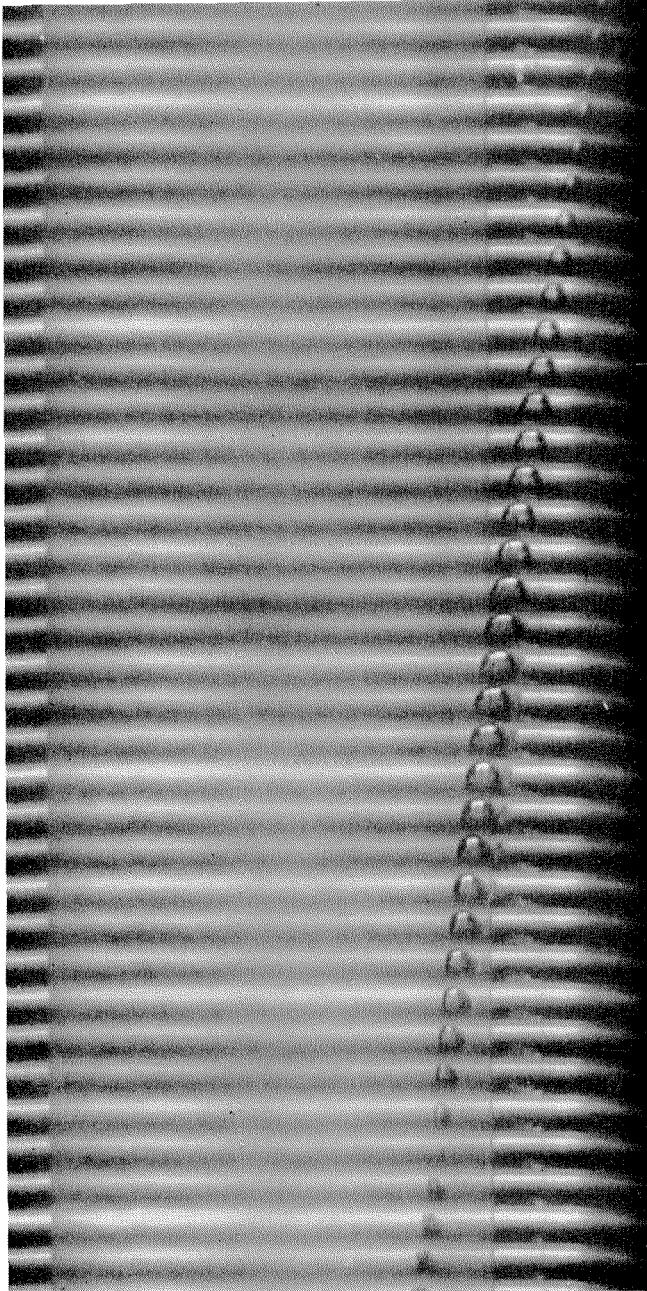


At the June meeting of the Institute on Heat Transfer and Fluid Mechanics, Professor Plesset of the Applied Mechanics Department, Caltech, presented a paper on "The Dynamics of Cavitation Bubbles". This paper gave an analysis and explanation of the growth and collapse of cavitation bubbles.

The experiments he analyzed were performed in the high speed water tunnel in Caltech's Hydrodynamics Laboratory. This water tunnel gives the highest speed flow of any water tunnel in the world. The figure shows an example of the data which have been studied.

In this series of pictures, the water flows by the model in the water tunnel with a velocity of 70 feet per second. These pictures were taken at a rate of 20,000 per second on film moving at 100 feet per second. Each exposure lasts approximately one-millionth of a second. The series of pictures shows a cavitation bubble growing to a maximum diameter of approximately two-tenths of an inch and then collapsing. This whole cycle lasts only two-thousandths of a second.

A high pressure, generated near the bubble when it collapses, may be the cause of cavitation damage such as is often found in pumps and propellers. In Dr. Plesset's theory the bubble was assumed to be a "hole" in the liquid, containing water vapor; good agreement was found between the theory and the experimental observations.



recognition was given an anonymous donor of \$500 for an inter-house scholastic trophy to be awarded annually to the student house whose residents attain the highest scholastic average.

Tribute was paid Edward W. Crellin, member of the Institute Associates and donor of the Crellin Laboratory of Chemistry and Crellin Endowment Fund, and to George Grant Hoag, Institute trustee and donor, with his wife, of the George Grant and Grace Hoag Endowment Fund. Both men passed away in May.

William Rudolph Muehlberger, member of the senior class, was announced as the first winner of the Frederick W. Hinrichs Jr. award. Conger Peace Prize Oration awards went to Robert H. Heppe, first; John Heath Jr., second. The Mary A. Earl McKinney prize in English went to James D. Young with Carl A. Price taking second place.

James R. Page, chairman of the Caltech Board of Trustees, presided over the exercises.

As students drifted off the campus, more than 30 leading Cosmic Ray Researchers, representing every major research team in the field throughout the world (Russia excepted), began arriving on the campus for a three-day invitational Cosmic Ray Symposium June 21, 22 and 23. The event was held in honor of Dr. Robert A. Millikan's 80th birthday. The first of a series of invited papers covering up-to-the-minute research in that field was presented by Dr. Millikan to get the conference off on a tight schedule that saw sessions invariably run well into the dinner hour.

Others who presented papers included Dr. Louis Laprince-Ringuet, Paris; Dr. Pierre Auger, Paris; Dr. George D. Rochester, Manchester, England; Dr. G. Cocconi, Cornell University; Dr. Manuel S. Vallarta, Mexico City; Dr. Carl D. Anderson, Caltech; Dr. Serge A. Korff, New York University; Dr. Marcel Schein, University of Chicago; Dr. J. Clay, Amsterdam, Netherlands; Dr. Bruno Rossi, Massachusetts Institute of Technology; Dr. Alter Heitler, Institute for Advanced Study, Dublin, Ireland; Dr. J. Robert Oppenheimer, head of the Institute for Advanced Study, Princeton, N. J.; Dr. Robert B. Brode, University of California at Berkeley; Dr. C. M. G. Lattes, Radiation Laboratory, Berkeley, Calif.; Dr. John Wheeler, Princeton University; Dr. H. V. Neher,

Caltech and Dr. Frank Oppenheimer, University of Wisconsin.

These scientists, plus some 15 others who were invited to attend but did not present papers, took the cosmic ray apart particle by particle. Out of it all came general agreement that the symposium was an extremely successful affair; that our knowledge of these mysterious rays that bombard the earth from outer space is still fragmentary but progressing well, and that no one has yet determined from whence they come or how they originated.

Simultaneous with the Cosmic Ray symposium, the Heat Transfer and Fluid Mechanics Institute was also holding a three-day meeting in the Los Angeles area, one session of which was held on the campus. Some 300 scientists, and engineers from industry, the armed forces and colleges and universities participated in this conference. A symposium was held later on the campus to deal specifically with heat transfer problems as they relate to jet propulsion.

On the heels of the Cosmic Ray Symposium came a three-day meeting of the American Physical Society with approximately 300 physicists from throughout the United States attending. Opening session, with Dr. Millikan presiding, was held in Sexson Auditorium at Pasadena City College with subsequent sessions

split between the campus and the auditorium at McKinley Junior High school.

In addition to some 50 contributed papers, 12 invited papers were presented. Members of the Caltech staff who contributed papers included M. M. Mills, R. N. Hall, W. A. Fowler, J. O'Reilly, R. F. Christy, Charles H. Wilts, Jesse W. M. DuMond, David Lind, Bernard B. Watson, A. V. Tollestrup, J. W. Keuffel, Nicholas Begovich, Guy C. Omer, Jr., C. W. Snyder, C. C. Lauritsen, S. Rubin, Tom Lauritsen, W. F. Hornyak, C. B. Dougherty, V. K. Rasmussen and E. Richard Chohen.

The Caltech research team of DuMond, Lind and Watson presented three papers dealing with their new Gamma Ray Spectrometer recently completed and announced in May. The spectrometer, which makes possible measurement of Gamma Rays to an accuracy never before possible, was begun some ten years ago. Work was interrupted by the war and resumed at the end of the war with support of Office of Naval Research funds. It is the most precise instrument ever built for measuring accurately the infinitesimally small gamma rays.

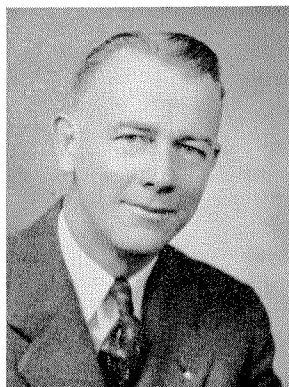
No sooner had the physicists adjourned than the astronomers took over for a four-day joint meeting during which sessions were held at both Mt. Wilson and Palomar Observatories in addition to those on the campus.

The Palomar session served in a sense as the scientific dedication of the observatory, since the official dedication on June 3 was a ceremony covering a considerably broader field of interest.

Too much credit cannot be given for the excellent planning that went into making it possible to crowd so many events into so short a span of time. A general committee headed by Dean E. C. Watson, chairman of the Division of Physics, was responsible for over-all planning of the Cosmic Ray and Physicists meetings and gave yeoman assistance with the Dedication Ceremony and the Astronomical meeting. Visit-

ing scientists were housed, when requested, in student dormitories and could obtain meals both there and at the Athenaeum.

Special arrangements were made for entertainment of wives who accompanied their husbands to the Cosmic Ray and APS meetings while the Mt. Wilson staff handled similar details for the astronomical meeting.



George Hall, director of public relations, has been at the Institute since January 1947. He arrived just as the question of the City of Pasadena's abandoning Tournament Park and selling it to Caltech was raised, and his work on that project resulted in a three and one-half to one vote of confidence in C.I.T.

After graduating from the University of Arizona in 1932, where he was an editor of the campus paper, business manager of the campus magazine, and a member of Sigma Chi, George went to work as a reporter for the Tucson, Arizona DAILY STAR. Then, from 1933 to 1936 he was busy working up from bell boy to purser on Grace Line ships sailing between New York and South America. His first public relations work was with DeBoth Homemakers Schools, New York, doing publicity and advance work in setting up cooking schools for newspapers throughout this country and Canada. In 1937 he returned to the DAILY STAR and married Miss Caroline Montague of Pasadena.

Hall stayed on the STAR until 1942 when he joined the Tucson Division of Consolidated Vultee as an assistant director of public relations. Through that job he became an employee of the PR firm of Hill and Knowlton, and resident director of public relations for Consolidated Vultee in Tucson.

Leaving Tucson in 1945, George came to Pasadena and went to work for North American Aviation, Inglewood, doing general PR work, and having charge of the plant paper. In January 1947 he came to Caltech.

#### NEW E & S EDITOR IS NAMED

WITH THE resumption of fall publication of **Engineering & Science**, the magazine will be edited by Edward G. Hutchings Jr., newly appointed managing editor. The alumni editorial board and the editor-in-chief will remain with the magazine.

Mr. Hutchings is a graduate of Dartmouth College, having received a B.S. degree in 1933. Since that time he has held editorial positions on the **Literary Digest**, **Tide**, **Business Week**, **Look**, and **Liberty**. Since 1945, Mr. Hutchings has been an associate and managing editor of **Science Illustrated**, a McGraw-Hill publication.

#### SERVICE LEAGUE COMPLETES FIRST YEAR

LOOKING back over slightly more than a year's work the Caltech Service League has reason to be proud of itself. Now made up of almost 600 mothers and wives of students and faculty members, the League has spent a busy year serving Caltech.

Under the direction of Mrs. George W. Beadle, wife of the Biology Division Chairman, a bulletin has been prepared and sent to each married student and research fellow. It contains factual information about

the League, Caltech Health Service, hospitals, counselling services, nursery schools and child care opportunities as well as other important names and telephone numbers.

The Well Baby Conference is under the leadership of Mrs. John Gee Clark, R.N. Eighteen conferences have been held, 37 babies registered, and 115 examinations made. Very young babies (13 days and up) are seen every week; older children once a month. There is a Motor Corps. Books on child care donated by a member have proven a helpful addition.

Mrs. A. H. Sturtevant, wife of the professor of genetics, is in charge of the Baby Furniture Pool. The most consistent demand, she reports, is for bassinets and cribs, with which the Pool is well supplied. The requests hardest to fill are for play pens and Taylor-tots or folding carts.

Caltech has 75 foreign students registered. This is 6 per cent of its enrollment, a far higher percentage than the national average for colleges, which is three-fourths of one per cent. The Inter Nations Association has been assigned a room on the campus, but their only furniture was a single chair. Two League members collected furnishings, and the Inter Nations students now have a comfortable, pleasant meeting room.

# ALUMNI NEWS

## THE ALUMNI FUND -- REPORT OF THE FIRST YEAR'S WORK, 1947-1948

The Caltech Alumni Fund, in its first year of operation (which in reality included only about three months of solicitation), has actually collected and deposited with the Institute \$18,837.43. It has received pledges of \$60,506, of which \$18,000 is guaranteed by funds already deposited with the Institute. This amount of money pledged represents the total of present estimates for future gifts made by approximately one-half the number of Alumni who contributed to the Fund this year. The remaining one-half of those contributing were either unable or preferred not to estimate the size of their future gifts to the Fund.

An analysis of the results of this first year of Fund operation reveals some rather interesting facts. Only 13.7 per cent of Alumni who did undergraduate work at Tech have contributed to the Fund so far, and less than 3 per cent of men who received graduate degrees from Tech, after taking their first degrees elsewhere, have contributed. Approximately 10 per cent of the total number of Tech Alumni have made

contributions or pledges. But this small percentage of the total Alumni body has already paid or pledged over 30 per cent of the five-year goal.

It seems obvious that participation in this project by three or four times the number now contributing is essential to its success, and it also seems obvious that with this larger number participating, success would be assured.

To present a picture of the gifts received broken down by graduating classes and related to the actual and potential givers in each class, the following table has been prepared. It should be noted that the analysis of size of average gifts, percentage of eligibles giving and class ranking (based upon the percentage of eligibles giving) is presented covering only those Alumni who took their undergraduate work at C.I.T. This is because of the fact that the relatively small amount received from other Alumni was felt to be insufficient to justify any statistical comparisons.

Results from Alumni who took Undergraduate Work at C.I.T.

Year	Total Money Received	Money Received	Number Eligible	% of Eligibles Giving	Number Giving	Average Gift	Class Ranking (% Giving)
Prior '15	\$ 780.00	\$ 780.00	—	—	4	\$195.00	—
1915	125.00	125.00	9	22.2	2	62.50	4
1916	20.00	20.00	6	16.7	1	20.00	13
1917	55.00	55.00	9	22.2	2	27.50	4
'18-'19	100.00	100.00	31	3.2	1	100.00	32
1920	195.00	195.00	32	15.6	5	39.00	15
1921	50.00	50.00	36	13.9	5	10.00	17
1922	2,760.00	2,750.00	57	33.3	19	145.00	1
1923	3,369.00	3,369.00	51	19.6	10	336.90	8
1924	675.00	675.00	72	8.3	6	113.00	27
1925	1,130.00	1,105.00	77	19.5	15	73.60	9
1926	407.00	397.00	102	9.8	10	39.70	23
1927	75.00	55.00	93	5.4	5	11.00	30
1928	1,472.00	437.00	61	19.7	12	36.50	7
1929	542.00	532.00	85	18.8	16	33.20	10
1930	245.00	235.00	106	4.7	5	47.00	31
1931	778.00	763.00	99	11.1	11	69.40	20
1932	409.00	409.00	96	14.6	14	29.20	16
1933	322.00	305.00	94	8.5	8	38.20	26
1934	381.00	331.00	103	16.5	17	19.50	14
1935	321.00	316.00	114	8.8	10	31.60	24
1936	614.50	524.50	103	17.5	18	29.10	11
1937	155.00	145.00	113	8.0	9	16.10	28
1938	284.00	265.00	127	11.8	15	17.65	19
1939	315.50	307.50	113	10.6	12	25.60	22
1940	390.00	345.00	142	12.7	18	19.20	18
1941	484.00	475.00	128	17.2	22	21.60	12
1942	574.00	519.00	150	24.0	36	14.40	2
1943	475.00	475.00	124	21.8	27	17.60	6
1944	363.86	343.86	119	23.6	28	12.30	3
1945	343.57	323.57	260	8.8	23	14.10	24
1946	213.00	175.00	157	7.6	12	14.60	29
1947	204.00	199.00	138	10.9	15	13.30	21
Others	210.00	—	—	—	—	—	—
<b>Total</b>	<b>\$18,837.43</b>	<b>\$17,101.43</b>	<b>3007</b>	<b>13.7%</b>	<b>413</b>	<b>\$ 41.40</b>	

We are all indebted to the many Alumni who gave generously of their time and talents in bringing the Alumni Fund into reality. Without minimizing the work done by others, the efforts of several should be particularly noted. Gordon Alles (who acted as a vice-chairman of the Committee as well as representative of the Class of '22) pushed his class into first place on percentage of giving. Phil Cravitz '29 did a particularly outstanding job of organizing the actual solicitation of his class and Richard Head '42, Everett McCartney '43, and Jay Borden and Rube Mettler of the Class of '44 did fine work and achieved notable results in placing their classes high in relative ranking.

In addition to the group in Southern California which organized the appeal and solicited the entire Alumni body,

the Alumni Chapters in other localities did much to publicize the Fund to their affiliated members. Both the New York and San Francisco Chapters did a great deal of very constructive work and the Chicago Chapter, which is just now being formed, will undoubtedly contribute substantially to future Fund drives.

The Fund is still very new. Even the idea of a fund, which is so well accepted in practically all leading colleges and universities, is new to many of us. With continued enthusiastic work by all those who did so much in this first year of the Fund, with a substantial increase in the number of Alumni participating in the Fund, and with real determination to meet our goal, the future success of the Fund should be certain.



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SECRETARY  
D. S. Clark '29

VICE-PRESIDENT  
J. W. Lewis '41

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R. M. Lehman '31

R. F. Mettler '44  
W. B. Miller '37  
W. D. Sellers '25

G. K. Whitworth '20

## ALUMNI CHAPTER OFFICERS

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L. Dean Fowler '23

The San Francisco Chapter meets weekly for lunch at the Fraternity Club, 345 Bush Street, on Thursdays.

## NEW YORK CHAPTER REPORTS

THE New York Chapter finished another year with the appearance April 23 of Dean L. W. Jones as guest speaker.

At the meeting of February 26, three Caltech graduates or post-graduates were speakers. They were Dr. Robert Dalton who spoke on the newest thing in glass, namely: "Photosensitive Glass" of which he is one of the inventors. Dr. Martin Nordberg described his very important but somewhat earlier development which is a reconstructed glass called "Vycor", about 96 per cent silica. Dr. Charles Bradley topped off the speeches with a discussion of the engineering problems which accompany the production of thousands of different glass items and formulas to help supply the country's glass needs. Corning Glass Works was ably represented by these three men who brought very interesting exhibits all the way from Corning, New York. Their lectures were repeated the following day at Murray Hill, New Jersey for the edification of a group of engineers and scientists at Bell Telephone Laboratories.

On March 25, 1948, Professor Ilia Mouromtseff of Upsala College gave a review of several hundred years of Russian science progress.

## ANNUAL ELECTION ANNOUNCEMENT

IN accordance with the requirements of Article III of the By-Laws of the Alumni Association, at the regular meeting of the Board of Directors on February 16, 1948, the following members of the Association were nominated for election to the Board of Directors to serve for a period of two years: Nicholas A. D'Arcy, Robert M. Lehman, Ruben F. Mettler, George K. Whitworth. These nominations were published in the April issue of **Engineering and Science Monthly**. No further nominations, as provided in the By-Laws, were received from the membership at large by the 15th of April.

At the meeting of the Board of Directors on April 19, 1948, the Secretary was instructed to cast the unanimous vote of all members for the election of the candidates nominated by the Board of Directors. In accordance with Section 3.06 of the By-Laws, the Board of Directors at its meeting of April 19, 1948, elected H. B. Lewis to serve as Director for the year 1948-49. Therefore, the Directors for the year 1948-49 consist of the following members:

N. A. D'Arcy, Jr. '28	Term expires 1950
E. R. Hoge '18	1949
R. M. Lehman '31	1950
H. B. Lewis '23	1949
J. W. Lewis '41	1949
R. F. Mettler '44	1950
W. B. Miller '37	1949
W. D. Sellers '25	1949
G. K. Whitworth '20	1950

In accordance with Section 3.08 of the By-Laws, the Board of Directors held an organization meeting on June 11, 1948, and elected the following officers for the year 1948-49:

President - H. B. Lewis  
Vice-President - J. W. Lewis  
Secretary - D. S. Clark  
Treasurer - H. R. Freeman

## ELEVENTH ANNUAL SEMINAR SUCCESSFUL

MOST successful one to date, the 1948 Seminar was attended by 487 alumni and wives. A few other statistics obtained were: Men registered—390; men at lunch—290; wives at lunch—105; and those attending dinner—322. The special day-long parallel program for wives is probably permanently established.

A preview of the documentary color film prepared by Edison Hoge '18, and Sidney Zipser '30, showing the evolution of the 200-inch Palomar Telescope, was the highlight of the seminar. The film showed the developments in astronomy which led to the planning and building of the giant telescope, and included shots of the polishing, transportation, placement, and testing of the 200-inch mirror.

After dinner at the Shakespeare Club, President DuBridge discussed "The Future of Atomic Energy."

## GNOME CLUB HEARS DuBRIDGE

COMMEMORATING the founding of the Gnome Club on the campus of Throop Polytechnic Institute 51 years ago, 71 members gathered for dinner at the Pasadena Athletic Club on March 9.

Dr. Lee A. DuBridge, speaker of the evening, told the members of the current affairs of the Institute. The alumni fund and the part it could play in the development of student facilities at Tournament Park was also portrayed by Dr. DuBridge.

Gunner Gramatky '28 was installed as the new president of the club succeeding George Whitworth of the class of '20. Other new officers are H. M. O'Haver '29, vice-president, Fred Wheeler '29, recording secretary, and Wayne Rodgers '27, secretary-treasurer.

Roger Sterrett '98 and Lucien H. Gilmore, faculty, were guests of honor as they belonged to the original group who founded the club in 1897.

## PERSONALS

1900

IRVING C. HARRIS has retired from his former position with the U. S. Bureau of Reclamation and now resides in Temple City, California. Before retiring, Irving was Construction Engineer at Shasta and Keswick Dams.

1913

THE ENTIRE CLASS of 1913 and the members of the faculty of 1913 who were available enjoyed luncheon together at the Athenaeum on May 11, 1948. Members of the class are Ray Gerhart, C. R. Hovey, L. J. Koch, Jr., R. W. Parkinson, and H. S. Wood. Faculty members present were C. K. Judy, H. C. Van Buskirk, E. C. Barrett, and R. W. Sorensen.

1917

JESSE P. YOUTZ, Industrial Design Lecturer at the Institute, is the author of the Chapter on Industrial Design in the 1948 edition of the International Industry Handbook.

1922

LOUIS ERB has recently been appointed assistant vice-president of The Pacific Telephone & Telegraph Company in San Francisco.

GLENN E. HOWE died on February 1st.

1923

DONALD H. LOUGHRIDGE has recently accepted an appointment as Scientific Advisor to the Secretary of the Army and has moved to Washington, D. C.

JACK R. NORTH is Chief Electrical Engineer of the Commonwealth & Southern Corporation in Jackson, Michigan. Jack holds a private airplane pilots license but reports that he has not flown very much recently.

ELMER Z. SMITH and Miss Matilda L. Hornberger, an instructor in music and art in the Cincinnati public schools, were married on December 13, 1947. Elmer is principal engineer for the Water Department of the City of Pasadena.

1926

ALPHEUS M. BALL, Manager of Explosives Research of Hercules Powder Company, Wilmington, Delaware, conferred with representatives of Consolidated Vultee Aircraft Corporation in San Diego and of the Naval Ordnance Training Station at Inyokern during a visit in Southern California in June and July. On July 3, AL, ALLEN LAWS, '26, BILL AULTMAN, '27, and HARRY FARRAR, '27, enjoyed an afternoon of swimming at the home of Al's sister in Arcadia.

EARL R. PETERSON, has recently been appointed Assistant Comptroller of the Southern California Edison Company. He was formerly Tax Agent of the same company.

VITO A. VANONI, Assistant Professor of Hydraulics at the Institute is one of a board of six advisors who conferred recently in Omaha with the U. S. Corps of Engineers on problems connected with control of the Missouri River.

1927

WILLIAM AULTMAN, Water Purification Engineer for the Metropolitan Water District, reported to the San Diego Naval Base for his regular tour of duty in July. Bill, a Lieutenant Commander in the Naval Reserve, lives at Claremont and is in charge of the Aqueduct filtering plant at La Verne.

FRED T. SCHELL and ALLEN L.

LAWS, '26 attended the Pacific Coast Electric Association convention in San Francisco in June. Fred is Vernon District Manager and Allen is Assistant Commercial Manager of the Southern California Edison Company.

1928

N. A. D'ARCY, JR., Consulting Mechanical Engineer has pointed out that a number of Tech men figured prominently in the Twenty-first Annual Spring Meeting of the Pacific Coast District of the American Petroleum Institute held at the Biltmore Hotel in May. Among those presiding at certain sessions or presenting papers were, besides Nick, the following:

J. N. GREGORY '34, Shell Oil Company; J. E. SHERBORNE '34, Union Oil Company; H. N. MARSH '22, General Petroleum Corp.; E.V. WATTS '36, General Petroleum Corp.

J. RUSSELL LOVE has recently returned to Southern California from New York where for two years he has been Executive Secretary of the Pressure Vessel Research Committee. Russ is now Vice-President of Standard Steel Corporation in Vernon.

1929

ERNEST B. HUGG and Mrs. Hugg became the parents of a son, John Alan, on April 19, 1948. Ernie is Assistant Superintendent of Buildings and Grounds at the Institute.

DUANE ROLLER, Ph.D. head of the Wabash College physics department, has been granted a leave of absence next year to serve as visiting lecturer on Physical Science at Harvard University.

He will collaborate with President James B. Conant of Harvard in the teaching of a special physical science course for liberal arts students who are not majoring in any science. This course, an experiment in science education, has been developed along unique lines by Dr. Conant, who conducted it last year for a small, selected group of students.

1930

L. SPRAGUE DE CAMP, a recognized expert on naval matters, has published several books of fiction and non-fiction including a book on "Inventions and their Management" and his recent "Round About the Cauldron", a history of magic, witchcraft, and occultism.

1931

WALTER Z. DICKEY, structural engineer of San Francisco, recently addressed the Sacramento Section of the A.S.C.E. on the subject "The Vacuum Process in Concreting Technique".

1932

CLARK GOODMAN, Associate Professor of Physics at M.I.T. spoke on Nuclear Power at the recent annual meeting of the Worcester Engineering Society.

1933

VICTOR E. BLY and Laura Carlisle Price were recently married in Los Angeles.

TRENT R. DAMES wrote recently as follows:

This note is to advise you concerning the whereabouts and activities of two Tech alumni whom I had the good fortune to encounter on a recent business trip to Europe. The trip was occasioned by the fact that Dames & Moore have been retained by the California Texas Oil Company, Limited, of New York to perform foundation investigations and advise them on foundation design in connection with the construction of Oil Refineries at Rotterdam, Holland, and

near Bordeaux, France. Both MR. MOORE and myself are graduates of Tech in the Class of 1933.

While in Holland, I had the good fortune, while staying at the Hotel Wittebrug in The Hague, to have a room next door to DR. ROBERT C. BARTON who received his Ph.D. in Chemistry from the California Institute of Technology in 1933. Dr. Barton was accompanied by Mrs. Barton and their two young sons Steve, five, and Don, three. Dr. Barton is employed by the Shell Oil Company and, while normally in San Francisco, has spent the last year in The Hague instructing other personnel of the Royal Dutch Shell Company on the chemistry of lubricating oils on which subject he is considered an authority.

On returning to the United States, my plane stopped briefly at Shannon Airport in Eire. While standing in the airport waiting room, I encountered BRIAN SPARKS who graduated from Tech in the Class of 1932. He is now a pilot with American Overseas Airlines and, at the time of our encounter, was eastbound from New York to Frankfurt, Germany.

PHILIP C. EFFROMSON is a partner in The Calidyne Company which began operations the first of 1948 in the field of mechanical engineering, consultation, and development.

PAUL F. HAWLEY, M.S., received a professional degree from the University of Arizona in June. Paul, who is patent supervisor for Stanolind Oil and Gas Co. of Tulsa, received his B.S. degree at Arizona before coming to the Institute for graduate work. He received his Ph.D. from Caltech in 1936.

WENDAL A. MORGAN is head of the Power System Technical Group in the Branch of Design and Construction of the U. S. Bureau of Reclamation in Denver. Wendal has been honored on several occasions recently for papers of which he has been author or co-author.

NIKOLAI N. SKAREDOFF has recently been appointed Supervising Engineer in charge of a Mechanical Design Squad in the Mechanical Piping Division of Devenco Incorporated, New York City.

1934

DON ROOKE is a Lieutenant Commander in the Civil Engineer Corps of the United States Navy and is stationed in San Francisco.

1935

JESSE E. HOBSON, Ph.D. is the author of the chapter on Industrial Research in the 1948 edition of the International Industry Yearbook. Jesse, former director of Armour Research Foundation of Illinois Institute of Technology is now executive director of Stanford Research Institute of Stanford University.

1936

PHILIP A. COLEMAN, M.S., Chief Aerodynamicist of the Lockheed Aircraft Corporation in Burbank, has recently contributed to the design of the U. S. Navy's 180 passenger Constitution, largest proved transport airplane yet designed. Earlier he worked on the Navy's P2V Neptune search-patrol plane and the U. S. Air Forces' P-80 Shooting Star jet fighter, nearly one thousand of which have been built. The P2V Neptune holds the world's non-stop distance record of 11,236 statute miles for the flight of the Truculent Turtle from

Australia to Ohio in the fall of 1946. Phil, as some other private pilots, has recently found personal flying a rather expensive hobby so hasn't done much recently.

PETER SERRELL, formerly on the design staff of the Southern California Cooperative Wind Tunnel has joined with Wm. A. Sandberg, formerly chief engineer of Lacy Manufacturing Company to form the Sandberg-Serrell Corporation. This firm has been organized as a consulting and design group specializing in unusual mechanical and structural problems. Headquarters are in Pasadena, California.

1937

CLAUDE B. NOLTE expects to be hospitalized for a considerable period during treatment for tuberculosis of the kidneys.

1938

HENRY K. EVANS has recently accepted a position as resident engineer in San Francisco with De Leuw, Cather & Co., of Chicago. Henry's work will be concerned with study and planning of public transit, highways, parking, and business district traffic control in San Francisco.

HENRY S. HOPKINS and Miss Eleanor Hamlin were married in Seattle in April. Mrs. Hopkins, a graduate of the University of Washington and the School of Physical Therapy of the Childrens Hospital in Los Angeles, served in the Army Medical Corps.

PHILIP T. IVES, Ph.D. and his wife have announced the birth of their second daughter, Carolyn Dorothy on April 15, 1948. The name of their second son, born April 7, 1947 but not previously reported in E. & S., is Donald Frank. The Ives family resides in Amherst, where Phil continues as Research Associate in the Amherst College Biology Department.

DALIMIL KYBAL and Miss Vivian Cristol became engaged in May. Miss Cristol is editor and film critic with *Where* magazine in New York City. Dalimil is on the research staff of M.I.T. in Cambridge.

LUPTON A. WILKINSON has joined the McDonnell Aircraft Corporation in St. Louis where he is now General Supervisor of the Production Control and Scheduling Departments. Prior to going to St. Louis Lupton worked for the Stanford Research Foundation where he studied the potentiality of the aircraft industry to expand in case of a national emergency.

1939

FRED HOFF has recently joined with Norman Wimpres '38 and Bob Alcock '40 in the petroleum equipment business at Industrial Engineers, Incorporated. Fred, formerly employed in guided missiles development for Hughes Aircraft Co., is also a member of the teaching staff of U.C.L.A. on a part time basis.

SIMON PASTERNAK, Ph.D. became engaged to Miss Ruth Simon of Brooklyn, New York in May. Simon is in the theoretical physics division of the Brookhaven National Laboratory, in Upton, Long Island. Miss Simon is a psychologist at the Bureau of Child Guidance of the New York Board of Education.

1940

PIERRE M. HONNELL, Associate Professor of Electrical Engineering at Washington University, took an active part at the Annual convention of the

American Society for Engineering Education at Austin Texas recently. In addition to presiding at one of the sessions Pierre presented a paper on the equipment which he designed for the U. S. Military Academy for instruction in electronics. It is expected that this equipment will be marketed soon.

SABIH USTEL, M.S. is working with a firm of contractors in Istanbul, Turkey.

1941

WERNER BAUMGARTEN, Ph.D. has joined Merck & Co., Inc., as a research chemist in the Research and Development Division.

STANLEY E. SOHLER was appointed Educational Director for the John W. Yates Agency of Massachusetts Mutual Life Insurance Company. Stan will continue his consultative service on insurance and financial planning.

1942

PAUL S. BERGH recently became engaged to Miss Mary Jane Farnsworth of Bethesda, Maryland.

DAVID H. BROWN has been awarded one of the ten Merck Fellowships by the National Research Council. These fellowships are supported by a \$100,000 grant from Merck & Co., Inc., Mr. Brown plans to continue research under the sponsorship of Prof. Carl F. Cori, Biochemistry Department, Washington University School of Medicine, St. Louis, Mo. where he will investigate the purification, characterization, isolation, and comparison, of enzymes from plant and animal tissues.

DAVID L. HILL recently received an Atomic Energy Commission fellowship at Princeton in medicine, biology, and physical science. David, already a graduate student at Princeton, will continue his studies under the supervision of John A. Wheeler.

ROBERT GREENWOOD and Miss Carolyn McCandless were married in New York City on May 29th.

CHESTER DAVID MILLS, JR. died on March 13, 1948.

1943

RALPH G. ALLRUD, formerly with the Republic Aviation Company is now employed by the G. M. Bosford Industrial Advertising Agency as a copy writer and client contact man.

CHAD S. DAUWALTER is associate Analytical Engineer in the NEPA Division of Fairchild Engine and Aircraft Corporation in Oak Ridge, Tennessee. Dauwalter reports that WILLIAM G. KENNEDY and MURRAY LESSER of the class of '42 are also employed in Oak Ridge.

OLEG C. ENIKEIEFF and Miss Una Virginia Owen were married on June 12, in Washington, D. C. Mr. and Mrs. Enikeieff will reside in Providence where Oleg is a Research Associate at Brown University.

RALPH M. WILLITS and Miss Nancy Waterman of Monrovia were married in June. Since his release from active duty in the Navy Ralph has been in the employ of the General Petroleum Corporation where he is now an Assistant Job Engineer in the Vernon offices.

1944

NEVILLE S. LONG and Miss Anne Elizabeth Armstrong became engaged in May and planned to be married on June 19 in Santa Monica.

KENNETH L. McBREEN has recently returned to Southern California where he is Assistant Superintendent at the Torrance plant of American Radiator and Standard Sanitary Corporation.

ROBERT M. WEIDMAN who has been doing graduate work at Indiana University plans to continue his studies at the University of California this fall.

W. F. CHAPIN now heads the Process Department of the Mid-Continent Gasoline Division of the Fluor Corporation in Houston, Texas. He will handle engineering, drafting, purchasing, and accounting on gas-gasoline, cycling, and dehydration plants in the region east of the Rocky Mountains.

1945

FRANK MILES DAY and Miss Doris Anne Weyl of Philadelphia were married on May 29. Day is a Time Analyst for the Budd Company.

LEWIS C. NORTON and Miss Naomi Victory Hayes were married in Washington, D. C. on May 30. Lewis is a junior analyst in the U. S. Weather Bureau.

DONALD H. SWEET became engaged to Miss Beth Greenwald of New Orleans in April. Donald was studying at Stanford at the time of the announcement.

RICHARD C. TEITSWORTH, now a student at Yale's Sheffield Engineering School, is engaged to Miss Mary Ellen Leggett, of Plainfield, N. J., who graduated from Smith College this June.

1946

PHILIP H. BENTON has been employed with International Bechtel, Inc. in Saudi Arabia since October, 1947. Phil is Engineering Assistant to Project Manager on the construction of a 30 and 31 inch pipeline which will connect Abqaiqon on the Persian Gulf with Sidon, Lebanon on the Mediterranean Sea. Work goes on in spite of a political situation that presents such obstacles as "freezing" a number of bull dozers in Trans Jordan and requiring a truck convoy from Dhahran, Saudi Arabia to secure their delivery.

CHARLES B. DOUGHERTY and Miss Harriet Thomas McBrayer became engaged in May. After their marriage set for June 27, Mr. and Mrs. Dougherty planned to live in Whittier.

EDWARD S. IDA and his wife Barbara Jean became the parents of a daughter, Janice Eileen on May 30. Ed is Service Salesman for Otis Elevator Company.

LOUIS K. JENSEN will, on September 4, marry Miss Frances Plusch, of Westfield, Massachusetts. Louis is now working in El Segundo for the Standard Oil Co.

1947

HENRY G. KOHLER and Miss Barbara Strahm of South Pasadena were married in October, 1947.

GORDON McCLURE and wife Eleanor became parents May 2 of Mack Patrick, who weighed eight pounds, thirteen ounces.

ARTHUR B. PARDEE, Ph.D. has been awarded a renewal of the Merck Fellowship which he won last year by the National Research Council. Pardee will continue his preparation for research in medical chemistry at the McCordle Memorial Laboratory for Cancer Research at the University of Wisconsin under the direction of Dr. Van R. Potter. In 1946 and 1947 he was a teaching assistant at the Institute, receiving a Ph.D. in 1947.

1948

JAMES E. HOLDITCH became engaged to Miss Margaret Babcock of Laguna Beach in May. Miss Babcock is a graduate of Pomona College.



## With the Editor

(Continued from Page 1)

duce a few more but we didn't get enough for the big personals section we had planned.

In our material were some items, which would have made interesting stories if they had been more complete. However, they omitted new addresses, or the names of old and new firms, or type of new work. On the other hand most of the items sent in by alumni were carefully and thoughtfully written, some by one-time editors, we feel, for they were written in just the right form for publication and are published here without any important changes.

We have always read all the news notes in E & S but have never before gotten as strong a feeling of the importance of the work Tech Alumni are doing. Perhaps this is the result of checking many of the items for completeness and accuracy and trying to decide how best to present them, or perhaps those items with insufficient information to warrant publication added to the total effect. Anyway after we had finished the task of preparing the news notes we had a more profound respect for the contribution of Tech men to present day science and industry.

• • •

We don't know exactly how to approach the last item in this column—an explanation of our lateness in getting out the June and July issues. Prior to the June issue we of the staff were proud of our record. We had made up a schedule and had followed it quite well. Then came the June issue on

Palomar. Believe it or not we started preparations for that issue back in 1947. We had put out several special issues so we thought we knew how to schedule this one. We know now that we didn't. The main difference was that in other special issues, as the geology and biology issues, the material came to us very nearly ready for publication. In the case of the Palomar issue, we had to produce many of the articles—and they took a lot of work in addition to their writing. Our Managing Editor did most of the work although George Hall of the Institute staff produced a number of the articles.

Getting behind on the June issue put us behind on the July issue, of course. Frankly, if it weren't for the normal two-months summer breather, we don't know what we would do to catch up. We have plans and hopes, in spite of a cloudy near future, to get back on schedule with the October issue.

## Letters

I would like to say for the benefit of the ENGINEERING & SCIENCE editors that I have enjoyed the recent issues and would like to see the same general tone continued.

J. T. Harlan Jr. '41  
San Rafael, Calif.

• • •

The work in Saudi Arabia which has been undertaken by Americans has been seriously endangered by recent political moves which apparently overlook justice.

The Arabs have possessed Palestine for more than 1225 years, longer than the U.S.A. has been a nation. Morally they have every right to hold possession of their country. Economically, the Arab states have vast oil reserves that are vital to every American's protection through national defense. These are facts.

Scientists and engineers have generally steered away from politics in the past. The past has been filled with disastrous results caused by political inadequacy. Since the advent of atomic power, every scientist and engineer should more than ever before interest himself in the falsehoods of politics as well as those occurring in the fields of science and engineering if we are to uphold freedom and justice for all men. Therefore, in keeping with "The Truth Shall Make You Free", let us work together.

Philip H. Benton '46  
Dhahran, Saudi Arabia

• • •

I have been meaning to drop you a note for quite a while concerning ENGINEERING & SCIENCE. Despite a horde of magazines which I have to look at in my profession, this is one that I have to read from cover to cover each time it comes. I had a wonderful feeling, similar to viewing the family album, when I read the number devoted to Kerckhoff's biology activities—being where I spent much of my time in Tech. I enjoy the scope of material which you cover throughout the year. Of course, I am very much interested in seeing what happens to my old classmates.

Keep the magazines coming my direction!

Dean Nichols '37 M.D.  
Helena, Montana

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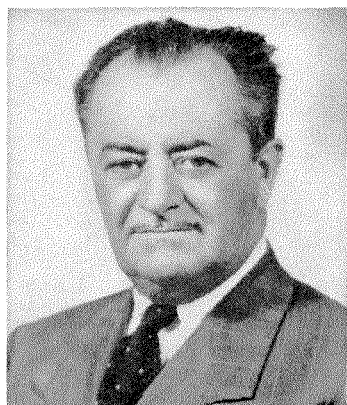
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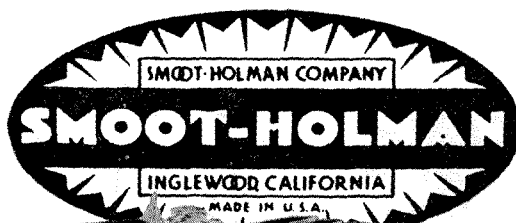
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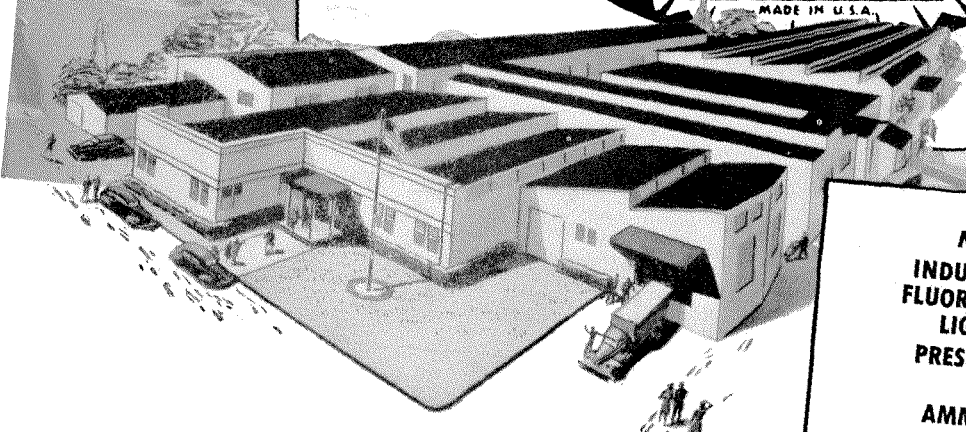
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