

C. I. T. NEWS

ATHLETICS

By H. Z. MUSSELMAN
Director of Physical Education

WITH four wins out of eight starts, Coach Carl Shy's basketball squad finished third in the Conference Championship race. Redlands topped the Conference with six victories; Occidental was in second spot with five wins. The Conference race was close, as more than half of the contests were won by only a few points. None of Tech's league defeats was by more than five points.

Highlight of the Caltech season was the 43-41 non-league victory over the Pepperdine Waves, the strongest college team in the west. The Waves, runner-up in the 1945 Intercollegiate basketball tournament at Kansas City, were behind 20-12 at the half, but quickly assumed the lead at the start of the second period. Baskets by Paul Nurre and Tom Martin, forwards, and by Paul Saltman, center, tied the score in the closing minute, with guard Jerry Schneider sinking the winning basket from mid-court as the gun sounded.

As predicted early in the season, Coach Shy's big problem was the development of a scoring punch, a handicap which persisted throughout the season. The team developed slowly, and did not reach its peak until the closing weeks of the season. Dick Jackson, forward, a V-5 trainee, topped the scorers with an average of 9.75 points per game, and center Paul Saltman, the only civilian member of the squad, averaged 7 points. Captain Stuart Bates, playing his third year on the team, won high recognition for his excellent defensive work at guard.

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Normal schedules have been arranged for Caltech teams in track, baseball, tennis, and swimming. With only forty Navy trainees remaining in school, the teams for the first time in three years will depend largely on civilian student support.

All squads will be quite inexperienced, as there are only five Spring sport lettermen in school and only a few others who have competed on Tech teams. However, with a large Freshman class entering this semester, and

*Conference Games

the return from service of many former students, much new material will no doubt be uncovered.

Bob Merrick, '42, who coached the Water Polo team last fall to such a successful season, will coach the swimming team this spring, and John Lamb, former tennis coach at Stanford University, has been appointed Tennis Coach.

SCHEDULES

TRACK

March	22—Interhouse Meet
"	30—San Diego Invitational
April	6—College Relays at Occidental
"	13—Pomona-Redlands-Whittier at Caltech
"	20—Caltech at Occidental
"	27—Pepperdine at Caltech
May	4—Caltech at U.C.L.A.
"	11—Conference Meet at Pomona
"	18—Fresno Relays
"	25—Coliseum Relays at Coliseum
"	31—Pasadena Games at Rose Bowl
June	7—S.P.A.A.U. Championship at Compton

BASEBALL

March	30—Loyola at Caltech
April	6—Caltech at Redlands
"	13—Whittier at Caltech
"	20—Caltech at Loyola
"	27—Pepperdine at Caltech
May	4—Caltech at Whittier
"	11—Caltech at Occidental
"	18—Caltech at Pepperdine
"	25—Redlands at Caltech
June	1—Occidental at Caltech

TENNIS

March	30—Caltech at U.C.L.A.
April	6—Pepperdine at Caltech
"	10—Caltech at Pomona
"	13—Occidental at Caltech
"	16—U.S.C. at Caltech
"	20—Caltech at Redlands
"	27—Caltech at Pepperdine
May	1—Pomona at Caltech
"	4—Redlands at Caltech
"	8—Caltech at U.S.C.
"	11—Caltech at Occidental
"	17—Conference Tournament at Caltech
"	18—Conference Tournament at Caltech

SWIMMING

March	29—Compton JC at Caltech
April	5—Caltech at Occidental
"	11—Caltech at Compton JC
"	16—Pomona at Caltech
"	19—Caltech at U.C.L.A.
"	26—Occidental at Caltech
May	1—Caltech at Pomona
"	4—Conference Meet at Occidental
"	8—U.C.L.A. at Caltech

NEW FACULTY MEMBERS

CALIFORNIA Institute of Technology announces the addition of two noted geologists to its teaching staff in the division of geological sciences. Dr. J. Wyatt Durham, authority on oil deposits, will join the Caltech faculty as an Associate Professor of Invertebrate Paleontology next August. Dr. Richard H. Jahns, metallurgist for the United States Government during the war, comes to the Institute in March as an Assistant Professor of Geology.

A native of Okanogan, Washington, Dr. Durham received his B.S. from the University of Washington in 1933, his M.S. and Ph.D. from the University of California in '36 and '41. Formerly a geologist for the Standard Oil Company of California, he is currently employed by the Tropical Oil Company in Venezuela.

A Caltech graduate of 1935, Dr. Jahns was noted here both as an honor student and an athlete. He took his master's degree at Northwestern University in '37, then returned to Caltech for his Ph.D. in '43. Associated with the United States Geological Survey in studies of strategic minerals during the war, he developed an important source of domestic tantalum ore, and aided in development of an unusual deposit of beryllium in New Mexico.

MAJOR M. M. BOWER '27

MAJOR M. M. BOWER has resumed work with Bell Telephone Laboratories in New York City after serving three and one-half years with the Signal Corps. For the first two months he was Officer-in-Charge of Military and Civilian Personnel, General Development Branch of the O.C.S.O. He was next assigned as Officer-in-Charge of the carrier telephone and telegraph and the wire and cable sub-sections of the Ground Signal Equipment Branch. During this time he went to Africa with 6,000 tons of this material and assisted in the introduction of carrier telephone and telegraph cable and rapid pole line.

In November, 1943, he transferred to the Signal Corps Engineering Laboratory, Bradley Beach, New Jersey, and was Control Officer of the Eatontown Signal Laboratory for one month.

Major Bower organized the Systems Engineering Branch at the Evans Signal Laboratory, endeavoring to compile information on communications systems engineering to coordinate developments within the Signal Corps. From May until his release, he was chief of the Radio Direction Finding Branch of the Evans Signal Laboratory.

POSTHUMOUS AWARD

THE SILVER STAR has been awarded posthumously to Captain Herbert V. Ingersoll '26, Corps of Engineers, with the following citation:

SILVER STAR

"For gallantry in action near Alangan River, Luzon, Philippine Island, on 8 April 1942. During the early phases of the war, Captain Ingersoll assumed command of the 803rd Engineer Battalion and, by his coolness under fire, decisive action, and sound judgment, maintained the confidence and high morale of his inexperienced troops during a critical period of operations. When flanking units withdrew under cover of darkness leaving the battalion in a front base sector with unprotected flanks and rear and with no communications, Captain Ingersoll placed himself in an exposed position at the head of his men and, with utter disregard of personal danger from enemy patrols, led an orderly withdrawal without loss. By his inspiring courage and intrepid leadership in moving his unit to safety in darkness and under artillery fire over unfamiliar terrain, Captain Ingersoll rendered invaluable aid to our forces at a critical time and proved himself worthy of the highest traditions of the United States Army."

CONSOLIDATED VULTEE FELLOWSHIPS

ACCORDING to a recent announcement received by Dr. Clark B. Millikan, one new scholarship and five new fellowships have been established by Consolidated

Vultee Aircraft Company (Convair) for students at California Institute of Technology.

The scholarship provides for a grant of \$500 a year and is open to highly recommended students in Engineering (civil, electrical, mechanical or aeronautical) who have completed their junior year, while the fellowships carry with them grants of \$750 a year and are open to graduate students in engineering, metallurgy, chemistry, physics or mathematics. The scholarship is for a one year period; the fellowships cover the time required for the student to obtain the degree approved by the Institute and Convair.

The scholar, at the time of acceptance of the scholarship, agrees (the agreement is between the student and Convair) to work at Convair for a total period of thirty-two weeks. The work may be done during the summer vacation in his senior year and the remainder after graduation. The fellow agrees to work for Convair for a total period of thirty-seven weeks during summer vacation and after receiving his degree. At the conclusion of scholastic work and the training period, the student will be offered an employment contract at the discretion of Convair. Students are under no obligation to accept this offer.

The scholarships and fellowships are open to men who are in school and wish to continue work in their chosen field. Such men are selected by the Institute and approved by Convair. Men who are Convair employees are also eligible, but in applying for admission to the Institute, these men go through the regular channels.

For graduate students, a research problem will be mutually agreed upon by the student, Convair, and the Institute. After deduction of tuition, the remainder of the scholarship or fellowship funds may be distributed at the discretion of the California Institute of Technology. Funds not spent in any one year may be held over until the next year.

DR. EDWIN F. GAY

DR. EDWIN FRANCIS GAY, Associate in Economic History at the California Institute of Technology, and chairman of the Research Group at the Henry E. Huntington Library and Art Gallery, died of pneumonia February 7, 1946, in Pasadena. He was seventy-eight years old.

Dr. Gay came to Pasadena in the autumn of 1936 from Harvard University; he exercised his option at that time of retiring as Professor Emeritus in order to join the Research Group at the Huntington Library. The Library was so rich in source material on economic history that Dr. Gay's work there was mutually profitable. At the Institute, Dr. Gay gave a graduate course in Economic History which was offered as a Humanities elective.

At Harvard University Dr. Gay will be remembered professionally for at least two reasons; the large group of students he trained and inspired in the field of economic history, and the leadership he gave the Harvard Graduate School of Business Administration beginning in 1908 when President Eliot appointed him its first Dean. In the first regard, it is probable that Dr. Gay played a unique part in advancing teaching and research in economic history; his students are carrying on in that field on a broad front as teachers and as members of research groups. In the second undertaking, as Dean of the Harvard Business School, he laid the groundwork for professional training for business. World War I interrupted this work; Dr. Gay was called to Washington

to assist with the administration of several parts of the war economy. In November, 1919, he accepted an invitation to become president of the New York Evening Post. In January, 1924, this paper was purchased by the Curtis Publishing Company and Dr. Gay returned to Harvard University.

Throughout his life, Dr. Gay laid particular emphasis on research. His only early research in the field of economic history, carried on principally in Great Britain and in Germany from 1890 to 1902, was the basis for the particular distinction he enjoyed in England as an economist. He initiated the extensive program of business research at the Harvard Business School. He served as director of Research for the National Bureau of Economic Research from 1924 to 1933, and he was active in sponsoring the valuable statistical work undertaken by the Bureau on national income. He was an advisor to the California Institute of Technology authorities in connection with the establishment of the Industrial Relations section. A few months before his death he gave counsel and encouragement to his associates at the Institute as to the conduct of industrial research.

Dr. Gay was one of the leading figures in the Council on Foreign Relations during its first years. In 1921 he was its first secretary-treasurer, and from 1921 to 1945 he served as a director. The purpose of the Council was to promote an understanding of international affairs. It sponsored study groups in foreign relations in various cities. The quarterly publication of the Council, "Foreign Affairs", is the leading magazine in its field. Dr. Gay was a member of its editorial advisory board until his death.

Surviving Dr. Gay are his son, Edward R. Gay, of New York, and his daughter, Mrs. Godfrey Davies, of Pasadena, California.

WILBUR C. THOMAS, TELEPHONE PLANNING ENGINEER, PASSES

STRICKEN suddenly, Wilbur C. Thomas, Toll Plant extension engineer of the Southern California Telephone Company, died at his home, 1270 Lorain Road, San Marino, California, on February 27.

Mr. Thomas was born in Georgetown, Colorado, May 8, 1897, where he spent his early years. At college age he won two Princeton University scholarships, but his college career was interrupted by World War I. In 1918 he was graduated from California Institute of Technology and subsequently employed by Standard Oil Company as an overseas representative in China.

From the beginning of his association with the Southern California Telephone Company in 1921, Mr. Thomas was instrumental in applying constantly improving developments to the expanding phases of this industry in the southern California area. In his recent post, he was largely responsible for the toll program which has provided facilities for the tremendously increased volume of long distance traffic developed during the war period and continuing into the postwar period.

Mr. Thomas was an active member of Tau Beta Pi, American Institute of Electrical Engineers, San Marino American Legion, Los Angeles Athletic Club, and Telephone Pioneers of America.

He leaves his mother, Mrs. Quinnie Thomas Owen, of Venice, California, his wife, Mrs. Grace Thomas, and daughter, Miss Grace Lorraine, of San Marino, California.

NINTH ANNUAL SEMINAR

FIRST major postwar assembly of C.I.T. Alumni will be the Ninth Annual Seminar, scheduled to convene Sunday, April 28, on the Institute Campus.

Subjects for discussion will deal with up-to-the-minute developments in the fields of radar, electronics, and jet propulsion, as well as topics of the day concerning international affairs, and current economic and industrial problems.

According to Ken Belknap, '27, and Nick D'Arcy, '28, chairman and vice-chairman, respectively, of the Seminar committee, the program will be an "all-out" affair with the following tentative schedule of speakers, subjects, and events:

- 8:15 A.M. —Registration—Throop Hall.
9:00 A.M. to 9:25 A.M.—Chapel—Throop Hall.
9:30 A.M. to 10:20 A.M.—Professor Frederick Lindvall —201 Bridge Laboratory. Subject: "A New Type Electro-Mechanical Brain".
9:30 A.M. to 10:20 A.M.—Professor William Pickering—155 Arms Laboratory. Subject: "Radar, Its Postwar Possibilities".
(Since Dr. Lindvall's and Dr. Pickering's talks include laboratory demonstrations, the audience will divide into two groups for the above events.)
10:25 A.M. to 11:15 A.M.—Professor Wallace Sterling—Culbertson Hall. Subject (Dependent on national and international developments.)
11:20 A.M. to 12:10 P.M.—Doctors Lindvall and Pickering will give repeat performances for the alternate groups.
12:20 P.M. to 1:00 P.M.—Luncheon, cafeteria style, at student houses.
2:05 P.M. to 2:55 P.M.—Professor Robert D. Gray—Culbertson Hall. Subject: "Industrial Relations".
3:00 P.M. to 3:30 P.M.—James R. Page—Culbertson Hall. Subject: "The Institute and the Alumni".

The Seminar, a stag affair, will be open to all paid members of the Alumni Association, and guests. The registration fee, which includes the price of the luncheon, will be \$2.50 per person. Since an overflow attendance is expected, reservations will be on a "first come, first served" basis. Alumni will receive announcements and reservation cards in early April.

ALUMNI DINNER DANCE

SOFT lights, sweet music, and the renewal of old fellowships featured the Tenth Annual Caltech Alumni dance held at the Oakmont Club in Glendale on February 2. The sweet music was provided by Bob Mohr and his orchestra, and by Elsie Bear, her organ and accordian. The fellowship was contributed by 420 Tech graduates and their wives and guests, aided and abetted by the able ministrations of the staff of the Oakmont Club's bar and grill.

Dinner at eight was followed by dancing which continued until exhaustion threatened the orchestra. The Alumni showed no signs of weakening. So great, in fact, was the response to, and the enthusiasm for, this gayer aspect of Alumni activity that your Social Chairman, Carl Friend, would like to have an expression of

opinion as to your desire for another function of the same kind. If you want it, Carl has volunteered to shoulder the load and to arrange for another dance, tentatively suggested for October. Let us hear from you, and we will pass the word on to Carl.

NAVY BASE IN MINIATURE

A 14,000 square foot model of a 60-square-mile naval base to be built at an undisclosed place in the Pacific will be used in studying effects of waves, currents and "other hydro-dynamic phenomena or ocean behavior", according to Dr. Robert T. Knapp of California Institute of Technology's Department of Mechanical Engineering, who will supervise construction of the model.

To be located in Azusa, California, the model will be built at a scale of 1 to 360 and will be based on exact topographic and hydrographic surveys including complete moles, breakwaters and lagoons. "Whatever the actual cost of this experiment", said Dr. Knapp, "it will be relatively small, perhaps as low as one per cent of the possible millions saved in correcting mistakes before they happen, thereby avoiding storm damage to costly harbor installations." In charge of the project at the site in Azusa will be Warren O. Wagner, Ph.D. '45, also of the California Institute of Technology.

Month in Focus

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such an extent that they demand refreshing; experience in the technical field may be completely lacking because of duties of a different kind pursued since graduation from college.

SHIFT TO THE WEST

A large number of men who left the Pacific Coast either many years ago, or within the past five years, were effectively frozen in their positions in the eastern part of the country during the war. It is surprising to see how many of these men are now trying to secure employment on the Pacific Coast. Men who have

attained positions of considerable responsibility are seeking employment in the "industrially expanding west". The expansion that is talked about does not come as quickly as some would have it; before it arrives a reasonable period of development will be required. If one considers the problems associated with such a development from an engineering point of view, it becomes obvious that such a tremendous task cannot take place in any very short time.

ELECTRONICS

The armed forces have trained large numbers of men in the field of electronics, radio, communications, etc., and a majority of these individuals are desirous of remaining in that field on returning to civilian life. The greater proportion of these men are seeking electronic employment on the Pacific Coast where developments in electronics are not of the greatest industrial importance at present, rather than in the east where these activities are firmly established.

LOOKING AHEAD

Most industrial concerns tend to go a little easy on new technical hiring; they are waiting to see how many of their technical employees return to them from the service. Under these conditions, employment of newcomers is not now unusually active. Nevertheless, the longer-term outlook is bright. This is particularly true for those who return to their old employers, or who promptly recapture and improve their scientific skill by taking refresher, or graduate, work.

During the past three years, the universities have graduated relatively few technical men, and another four years will lapse before there is any regular class of B.S. to Ph.D. men. The general opinion prevails that it will take from ten to fifteen years to catch up to the normal availability and need of scientific men. Meantime, most companies are expanding their technical forces (especially along research lines) as rapidly as their own men return, or as other really good prospects become available. The long-term prospects are definitely conducive to optimism for those who are able and willing to qualify themselves fully for professional work.

PERSONALS

1920

ROSCOE R. ROCKAFIELD has been promoted from chief draftsman to engineer-in-charge of the crushing, cement, and mining section at the Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin.

1925

Dr. SAMUEL L. DIACK has returned to Portland, Oregon, from military service with the Army Medical Corps in North Africa, France, and Germany, where he is re-entering medical practice at the Portland Clinic, Portland, Oregon.

MICHAEL C. BRUNNER, formerly a colonel in the Army and now on inactive status, has returned to the Shell Oil Company, Houston, Texas, as assistant to the vice-president who is in charge of exploration work east of the Rocky Mountains.

Mr. Brunner's family, who has been living in southern California, is now returning to Texas. Michael Stuart, however, is remaining at the Southwest Military Academy, San Marino. While in service, Mr. Brunner was awarded the Legion of Merit.

1926

COLONEL JOSEPH MATSON, JR., AUS, chief construction division office of the engineer, headquarters, MidPac, returned to civilian life November 1. After a month's vacation he resumed his post as civil engineer for the Waiialua Agricultural Company, a position he held for two years prior to the war. Before his discharge, he was awarded the Legion of Merit.

J. E. VOELKER, formerly major in chemical warfare, has been released from military service and is now employed by the Riverside Cement Company as chemical engineer.

IVAN FARMAN has just been appointed brigadier general. He is moving from Asheville, North Carolina, to Langley Field, Virginia. The Farmans have one son.

1927

WM. A. MINKLER has been transferred from the former Westinghouse Air Conditioning and Refrigeration headquarters in Jersey City, New Jersey, to Hyde Park, Boston. Westinghouse Electric Corp. has purchased the B. F. Sturtevant Company, with factory and headquarters at Hyde Park. Mr. Minkler has been manager of application engineering and continues in this capacity in the new location.

LAYTON STANTON is now division geologist, Union Oil Company of California, Oregon and Washington division, with headquarters at Olympia, Washington.

TED C. COMBS, formerly lieutenant-colonel of the Army Service Forces, has accepted a position with Timber Structures, Inc., San Francisco, California.

FRANK A. NICKELL is in the employ of the Government of India (Punjab and United Provinces) for T.V.A. He is under contract for a year to supervise construction of five dams, the size of Boulder Dam. The construction is under the direction of the United States Board of Reclamation.