1915

Harold A. Black writes that he retired as a school teacher in June, 1955, after 36 years of industrial arts teaching—majoring in mechanical and architectural drawing. He's now a civil engineering draftsman for the City of El Cajon, Calif. Hal says that his college training paid off even 41 years after graduation for he made 83.2% on his civil service exam.

1922

Ralston E. Bear is now manager of distributor and contractor sales for the southern California area of the General Electric Company.

Russell J. Love is now in business for himself as a consulting engineer in San Francisco. He specializes in product and process design, cost reduction methods and industrial safety. He writes: "Since moving here I've been enjoying the weekly CIT Inclusions and renewing old acquaintances."

Harold R. Harris is now president of Aviation Financial Services, Inc., in New York City. Hal was formerly president of Northwest Airlines in St. Paul, Minn.

Gordon Allen, MS '24, PhD '26, who operates his own chemical research labs in Pasadena, is now a pharmacology professor in residence at UCLA Medical School as well as a research associate in biology at Caltech. Gordon's yacht, Gyrfax, was overall winner at the Ensenada race last spring.

1923

Donald H. Longbridge, PhD '27, formerly dean of the Technological Institute at Northwestern University in Evanston, Illinois, is now special executive assistant on the General Motors research staff at their new Technical Center in Detroit.

1926

Harold W. Lord, head of the Research Laboratory of the General Electric Company in Schenectady, N.Y., is celebrating his 30th year with the company. Hal has worked in many fields of electronics—from ballast for fluorescent lamps to pulse transformers for radar.

1928

Albert E. Lombard, Jr., MS '29, PhD '39, was appointed director of research at the McDonnell Aircraft Corporation in St. Louis this summer. Al was formerly at the U. S. Air Force Headquarters where he served as scientific advisor in research and development.

W. Morton Jacobs vice president and assistant general manager of the Southern California Gas Company, will move this month from Arcadia to San Francisco where he will take over new duties as vice president of the firm's parent company, the Pacific Lighting Corporation.

1929

Knowlton R. Birge, electrical engineer with the Ralph M. Parsons Company, writes that he's been doing some field work this past year mostly in design or preliminary design for proposals or estimates at Richfield's Watson Refinery, and also at the Shell Chemical Company in Torrance.

1930

Austin W. Strong, MS '31, has been appointed vice president in charge of personnel at the Southern California Gas Company in Los Angeles. He was formerly assistant vice president of the General Standards Department.

1932

Thomas F. Anderson, PhD '36, just completed a year on a Fulbright Fellowship at

---

**CRESCENT ARMORED CABLE**

Three Conductor Varnished Cambric Insulated — 5000 Volts

This construction of Power Cable provides speed and economy of installation indoors as well as outdoors as it can be attached to building surfaces or run in trays or racks, or hung from steel supporting cables between buildings.

**CRESCENT INSULATED WIRE & CABLE CO.**

TRENTON, NEW JERSEY
the Institut Pasteur studying the mating of bacteria as seen in the electron microscope. Tom writes: "We are lucky enough to have a nice apartment on a hill overlooking Paris. Our children, Timmy, 14, and Jessie, 9, are going to French schools in which they are the only kids that speak English. They're learning French rapidly and have many friends." Tom writes that after a summer tour of Europe, he will work on a Guggenheim Fellowship until January when he and his family will return to Philadelphia where he is associate professor of biophysics at the University of Pennsylvania.

1934

William C. McFadden is now executive vice president of the Hycon Manufacturing Company in Pasadena. Bill has been with the company since 1919.

Curtis Cortelyou, manager of General Petroleum Corporation's Ferndale Refinery in Washington, had the interesting experience of starting up a new refinery with all its heartaches, headaches and satisfactions, he writes. The Cortelyou's have four children—David, the eldest, is planning to go to the University of Washington next year; daughter Sandra, 15, is a high school sophomore; Sue, 10, has just finished sixth grade; and the youngest, Chuck, has just started in kindergarten.

1936

Tyler Thompson has just completed his fifth year in Philosophy of Religion at the Garrett Biblical Institute in Evanston, Illinois. He reports that Robert Jones '36, MS '44, lives nearby on the same street and their children (five in each family) frequently play together.

Peter B. H. Serrell, MS '39, partner in the firm of Sandberg-Serrell Corporation, writes from Pasadena that he and his wife, Kathleen (sister of Kenneth Macleish '39) have four daughters—Barbara, 15, Beverly, 13, Elaine, 10, and Elizabeth, 8. He says that in their spare time, he and his wife run a taxi service (strictly private), do Girl Scout work, swim, sail and watch the children grow. Pete sailed to Honolulu in the Transpacific race last spring.

1937

Foster C. Bennett, MS, chief of the Dow Chemical Company's metallurgical laboratory, received the annual Willard H. Dow Memorial Award in August. The award was given to Foster for outstanding research on magnesium die casting technology over a five-year period. He's been with the company since 1937 after three summers as a student employee.

1938

Newman A. Hall, PhD, who was assistant dean in charge of the graduate division at New York University's College of Engineering, is now at Yale University where he is chairman of the department of mechanical engineering.

1939

Mark Gardner Foster, PhD, was appointed in August as director of research for the Crosley Government Products Division of the Avco Manufacturing Corporation in Evendale, Ohio. He was formerly head of the development division of the Cornell Aeronautical Laboratory in Buffalo, New York. Mark, his wife and their three children, are now living in Cincinnati.

Warren E. Wilson, MS, formerly professor of engineering education at the Pennsylvania State University, is now dean of the school of engineering at Pratt Institute in Brooklyn, New York.

1940

Jack Tielrooy and Robert S. Ray, MS '11, were both elected vice presidents and members of the board of directors and executive committee of Brea Chemicals, Inc., in Los Angeles.

Jack has been with the company as manager of development since 1952 when it was formed. The Tielrooys have two children.

Bob joined the company in 1953 as manager of manufacturing. The Rays have four children.

Frank W. Dessel, Jr., MS '43, who is owner of the San Marino Pharmacy in San Marino, California, writes that he now has three sons—Frank III, 13, John, 9, and Tommy, 2. Frank is treasurer of the San Marino Post of the American Legion and president of the California Vending Corporation.

Derragh E. Nangle is now in the physics division of the University of California's Los Alamos Scientific Laboratory in New Mexico.

1941

Carl A. Carlson writes that after seven years of field construction as a field engineer and assistant superintendent for C. F. Braun and Company, he has now settled down in their home office in Alhambra. Carl was married in 1950 to Patricia Morse in Winnipeg, Canada. The Carlsons have a daughter, Judith Grace, who will be a year old in November.

Reuben P. Snodgrass, MS '42, was recently appointed director of flight research in the aeronautical equipment division of
A LOOK AT FUTURE DESIGN

How to prepare for it

NEEDS for even more efficient machinery are daily presenting new demands on the ingenuity of machine designers. In the same way, products themselves must incorporate even greater economies in materials and in manufacture to help keep pace with the pressures of growing competition. This trend in design thinking, therefore, poses a promising challenge to the student engineer.

Rapid strides in the use of welded steel construction point the way to a brilliant opportunity to pioneer new concepts in the field of product design engineering. Fundamentally, steel itself is the most economical material for many products, based on steel's inherently high strength, rigidity and low cost. The challenge, of course, is how to utilize the steel to its maximum advantage.

Here welding holds the answer to new savings in cost of manufacture. New welding electrodes, new welding techniques being introduced almost daily offer new avenues to obsolete production methods of long standing. Typical savings through the use of welded steel are shown in the following example.

All-welded headstock for power drive is made from 16 gauge sheet. Estimated to be 20% more rigid, weigh 28% less, cost 44% less than cast iron design. Photo courtesy Oster Manufacturing Company, Cleveland, Ohio.

It is to your advantage to keep pace with the progress of welding techniques. You can start with helpful manuals and bulletins available to you by writing . . .

THE LINCOLN ELECTRIC COMPANY
Dept. 6200, Cleveland 17, Ohio

The World’s Largest Manufacturer of
Arc Welding Equipment

PERSONALS . . . CONTINUED

Charles P. Strickland writes that E&S (April) was not quite up-to-date on his recent activities. As well as daughter Anita, 9, the Stricklands have a son, Freddie, 2, and they have moved from Alhambra to Pasadena. Charles is industrial sales engineer with the York Corporation in Los Angeles.

Gregory O. Young, MS ’47, has been an engineer at the Hughes Aircraft Company in Culver City, California, for the past nine years; passed his final oral examination for a PhD in electrical engineering last August at USC. He joins the USC faculty this fall as associate professor of electrical engineering. Greg has been a part-time instructor since 1952.

Wilbur M. Swanson, MS ’48, ME ’51, writes that after spending four years at Case Institute of Technology in Cleveland teaching aero and mechanical engineering while working for a PhD, he married the boss’s secretary in 1954 and left the next year for a job with the DuPont experimental station in Wilmington, Delaware. Milt is doing fluid mechanics and process dynamics work in the chemical engineering section.

Donald A. Keating, manager of the transportation products division of Turco Products, Inc., in Los Angeles, has been with the company now for 10 ½ years. The Keatings have three children—Richard Alan, 5½, Russell Brian, 1½, and Pamela Gail, 3 months.

Francis Odell, who is president of his own company, Metal Surfaces, Inc., in Huntington Park, California, writes: “I married Mrs. Kay B. Smith in September 1955 and now have two fine sons, John and Craig, ages 4 and 5.” The Odells live in South Pasadena.

John S. Jackson, Jr., MS ’54, head of the science department at Campbellsville College in Kentucky, has a new appointment as assistant professor of electrical engineering at the University of Kentucky in Lexington. The Jacksons have a daughter, Jane Carolyn, born last March.

Edward R. Elko is head of the missile rocket project in the development department of the liquid engine division of the Aerojet-General Corporation in Azusa, California. The Elkos had a son in March which brings their family up to four (two boys and two girls).

Merrill A. Williamson, MS, manager of the research division of the Burroughs Corporation, and special lecturer on research administration at the University of Pennsylvania, was appointed this summer as dean of the college of engineering.
and architecture at the Pennsylvania State University.

William R. Burns was recently appointed assistant manager of Farm Bureau Life, a section of the Farm Bureau Insurance Companies of Michigan. Bill had previously been planning supervisor of National Life of Vermont. The Burns have a son, 11, and a daughter, 9.

George Marvel Howe received his PhD from Clark University in Worcester, Massachusetts, last June.

1946 Edwin Pounder, MS '48, AE '51, is now chief of the aerodynamics department of the Southern California Cooperative Wind Tunnel. Ted has been assistant chief of the department since 1951 and at the present time is assistant director of the 10-inch tunnel at GAICT. As well, he also serves as vice president of the Caltech Management Club. The Pounders have four children—Susan, 3 1/2, Bill, 6, Steven, 3, and Jeffrey, 2.

Ali Bulent Cambel, MS, received a full professorship effective September 1 at Northwestern University in Evanston, Illinois.

1947 Walter J. Hamming, MS '47, was recently appointed as assistant director of research of the Air Pollution Control District in Los Angeles.

Colonel Norman C. Appold, MS, is chief of the research and target systems division under the Deputy Commander for weapon systems at the Air Research and Development Command in Baltimore, Maryland. Norman has been in the service since 1941 and formerly was stationed at Wright-Patterson Air Force Base in Ohio as chief of the power plant laboratory. The Appolds are the parents of two daughters, Karen Louise, 8, and Linda Katherine, 6.

David A. Cooke, MS, welcomed his fourth child, Catherine, last February. Dave is supervising engineer for the control development section of the Westinghouse Electric Corporation in Kansas City.

1948 James E. Ash, MS, received an appointment last month as superviser of the fluid mechanics and fluid power section of the Armour Research Foundation of the Illinois Institute of Technology in Chicago.

Jim has been with the Foundation since 1951.

Paul MacCreedy, Jr., MS, PhD '52, who is a consultant in meteorology and aeronautics, won the world glider championship in the Soaring Olympics held in July at Saint-Yan, France. Paul gained enough points to win the title by placing second in the 180-mile triangle event.

1949 M. Kent Wilson, PhD, was recently elected professor of chemistry and chairman of the department at Tufts University in Medford, Mass. For the past eight years, he has been on the faculty at Harvard University.

Hugh C. Carter, senior mechanical estimator in the California State Division of Architecture, is instructing the University of Southern California's mechanical estimating course in the evening division this fall.

Arthur R. Marks, MS, writes that "after receiving the exalted rank of Pfc, I parted company with the Department of Defense on September 3, 1956." Art is now at Yale University as assistant professor of industrial administration.

David K. Hayward has worked for the Texas Company in various parts of California ever since he left Caltech. He's now district petroleum engineer of the Los Angeles Basin District for the Texas Company in Long Beach. Dave's his wife, Jeanne, and their two sons, Gary, 3, and Eric, 1 1/2, live in Whittier.

1950 John K. Inman received his PhD in biochemistry from Harvard last June and the following month became a father upon the arrival of a daughter, Nancy Jeanne. John now has a position with the Michigan Department of Health—working in plasma protein research.

Vern A. Edwards reports the arrival of a daughter, Jeanne, on July 27, 1956. Vern's just completed his fourth year with Fibreboard Paper Products (formerly Pacific Products) and is now the process engineer of the Fibreboard Insulations Division in Emeryville, California. Working with Vern at the Emeryville site is Robert Hallanger, '35, who was recently made engineer manager of the new fibreboard company.

1951 Edwin A. Matzner writes that he is "at present working towards a PhD in organic chemistry at Yale University and suffering from the New Haven climate. I'm happily married and the possessor of a large cat, Ludwig." Ed invites any former associate who may read this to write to him.

Eli Botkin, MS, is now with the Hughes Aircraft Company in Culver City on the
Technical staff. He was formerly with the Naval Ordnance Test Station in Pasadena. The Bokins have two children—Dianne, 4, and Brad, 1.

Robert F. Connelly is west coast representative for the organic chemistry division of Emery Industries, Inc. in Cincinnati, Ohio. He's also secretary-treasurer of the Los Angeles section of the American Society of Lubrication Engineers for the year 1956-57. The Connellys expect to round out their basketball team next November—they've given up the idea of raising a baseball team.

1952

Paul D. Arthur, PhD, research scientist at the Marquardt Aircraft Company in Van Nuys, welcomed his first child, David John, last May 11.

Rendolph G. Moore writes that after three years as a subsidized athlete, courtesy of the U. S. Navy, he's back to his chosen career as a professional student. He spent last year as the only junior in the graduate college of the University of Arizona but hopes for an MS in chemical engineering next spring.

Roland Dufour, MS, writes from Paris that he's working in the electronic field in charge of the computer and automation department of a French firm called Radio-Industrie. He's also studying business administration at the Chamber of Commerce of Paris. Roland adds that anyone from Caltech who wants information (business or pleasure) about Paris or needs help while they may contact him.

1953

J. Morgan Ogilvie resigned from the U. S. Coast and Geodetic Survey in September, 1955, and is now in the sales promotion department of the DuPont Company in Wilmingon, Delaware.

Wilmer A. Jenkins II, PhD, is research chemist in the pigments department of the DuPont Company in Wilmington, Delaware. The Jenkins have two boys, ages 3 and 1.

Alfred H. Sturtvant finished his stint in the Army in September, 1955, and after a term at Caltech, left last January for Morrocoha, Peru, where he is assistant geologist at the Cerro de Pasco Corporation.

1954

George L. Johnston, a third-year law student at Harvard, has been appointed a proctor in Hollis Hall, one of the freshman dormitories.

Donald L. Hook received his MS in geology last June from the University of Arizona. Don's had a teaching fellowship there for the past two years and worked in the same office with Charles St. Clair, '54, and Randy Moore '52. Don says he's now working as petroleum geologist for the Continental Oil Company.

Roland S. Miller, MS '55, is serving with U. S. Naval Construction Battalion Nine at Subic Bay in the Philippine Islands.

Christian Dambrine, MS, a maritime engineer, was married on June 7, 1956 to Jacqueline Combet in Paris.

1955

George E. Madsen, sanitary engineer reserves officer with the Washington headquarters of the Public Health Service of the Department of Health, Education and Welfare, was assigned in June to the Arctic Health Research Center in Anchorage, Alaska.

Alain Brethes, MS, is back in France currently training to become a reserve officer in the French Air Force. He's working on electronic equipment for jet planes at a NATO air base in eastern France.

Alfred M. Goldman, Jr., MS '56, has been in the U. S. Air Force since leaving Caltech. He's stationed in the Air Defense Systems section at Air Research and Development Command Headquarters in Baltimore, Maryland, working with interceptor-type fighters and their armament.

Lt. George H. McDonald, Jr., MS '56, stationed at Wright-Patterson Air Force Base in Ohio, was married to Janet Ainsworth on June 2 in Moline, Illinois.

Lt. Richard F. Webber was assigned in June to Headquarters Air Research and Development Command in Baltimore, Maryland. Dick is assistant chief of the Technical Presentations branch of the Office of the Technical Secretariat.

Egil K. Bjerneud, PhD, writes from Norway that the day after Commencement, 1955, he became the father of a son. The whole family was in October for the old country and have since been visiting some wonderful skiing. Egil has also been helping to build Norway's first power reactor. After touring Europe, he writes, the whole family will probably return to the "sunny shores" this fall.

1956

Richard A. Johnson was married on June 9 to Kathleen Nally of Alhambra, California. Dick is design engineer at the Sandberg-Serrell Corporation in Pasadena.

Gerry L. Schott, PhD, is now a chemist at the Los Alamos Scientific Laboratory in New Mexico.