

The Gosney Research Fund

IN 1929 Mr. E. S. Gosney founded and endowed a non-profit organization, known at the Human Betterment Foundation, for the purpose of fostering and aiding constructive and educational forces for the protection and betterment of the human family. In collaboration with Dr. Paul Popenoe and other scientists Mr. Gosney carried on an extensive study in the field of eugenic sterilization, including particularly its medical, legal and social aspects. In 1929 and 1930 an exhaustive survey was made of 6000 cases of sterilization of eugenically unfit. Eight years later a second similar survey of 10,000 cases was made.

Following the death of Mr. Gosney in 1942, the Trustees of the Human Betterment Foundation agreed that the best interests of the Foundation would be served by transferring its activities to the California Institute of Technology. As a consequence in October 1943 an agreement was drawn up according to which the Human Betterment Foundation was to be dissolved as such and its assets turned over to the Institute. The Institute agreed to use these assets "and the proceeds thereof to establish the Gosney Research Fund, the income from which will be devoted in perpetuity to the promotion of research into the biological bases of human qualities and for making known the results of such research for the public interest."

At the present time the income of the Gosney Research Fund is used in support of post-doctoral fellowships in those branches of biological science basic to our understanding of human welfare. Gosney Research Fellowships are available to qualified investigators who hold the Ph.D. degree or its equivalent and who have demonstrated exceptional ability in original research. Preference is given to candidates who desire to carry on research in the general field of heredity. The Gosney Research Fund is currently administered by a Gosney Fund Committee made up of Professors A. H. Sturtevant, chairman, E. G. Anderson, Max Mason, and A. H. van Harreveld.

In effecting the transfer of the material assets of the Human Betterment Foundation to the Gosney Research Fund of the Institute special credit is due Mrs. Lois Gosney Castle, daughter of Mr. E. S. Gosney. Mrs. Castle spent approximately a year in putting the affairs of the Foundation in good order and in converting properties and other assets into fluid form. In addition she has maintained a keen interest in the research activities supported by the Gosney Research Fund.

G. W. B.

The Hixon Fund

IN 1938 A FUND was established at the Institute by the Estate of Frank P. Hixon to support researches in science which offered promise of increased understanding of human behavior. Up to the present the income of the fund has been applied to a series of individual projects of limited duration.

In the first of these Dr. R. Larente de N6, on leave of absence from the Rockefeller Institute of Medical Research, spent a half year at the Institute continuing his work on nerve action currents, with opportunity for consultation with the Institute staffs in physics and mathematics, and in particular with Dr. Leverett Davis of the Physics Department, who gave analytical formulation to the results. Dr. Larente is now publishing a comprehensive treatise on nerve action currents, and considers that his experience at the Institute was of primary importance for the five years of research which is being reported in the treatise.

The next project aided by the Hixon Fund was started as a cooperative study between members of the Institute staff under the leadership of Drs. Wiersma and van Harreveld and representatives of the State Department of Institutions, on the effects of electroshock as a means of psychotherapy. The work was carried on later in cooperation with the Department of Psychiatry at the Los Angeles County Hospital. Important clinical experience was obtained and reported on electronarcosis as a treatment in mental disorder.

During the war Dr. David B. Tyler, Hixon Research Fellow, at first independently, and later under O.S.R.D. auspices, made valuable studies which resulted in means of treatment for cases of battle shock, fatigue, and motion sickness.

The Hixon Fund is at present administered by a Committee consisting of Professors Max Mason, A. H. Sturtevant, Henry Borsook, and Linus Pauling.

Max Mason

Not in the Books

(Continued from page 2)

structure are focused on chemical compounds that make up living systems. Radioactive isotopes of various elements are being used to determine the fates of specific molecules in the organism. In a similar way the latest methods of electrophoresis, chromatography, and spectroscopy are being made use of. Physicists, Chemists and Biologists are pooling their knowledge and their resources to find the answers. But it is not enough that the attack be made with the techniques and skills that now exist—there must be a constant search for new and improved techniques and, even more important, for fresh imaginations to use them.

PERSONALS

1928

RICHARD ARMSTRONG (Aussieker) returned to Pasadena in August after serving in the Army Medical Corps, and started medical practice limited to the eye.

1929

ALBERT TYLER, Ph.D., has remained at C.I.T., and is now associate professor of embryology.

1930

EMORY L. ELLIS, Ph.D. '34, is working at the U. S. Naval Ordnance Test Station at Inyokern, Calif. His work for the last six years has led him away from the field of his doctorate, biochemistry, as he is now chiefly concerned with physical chemistry and chemical engineering.

1931

RUSSELL LEE BIDDLE, Ph.D., is

assistant professor of biology at the College of the City of New York. He is teaching many pre-medical and pre-dental students, and is college advisor to students majoring in pre-med and pre-dent and biology. He spends ten hours a week in this capacity, and regrets that it leaves him little time for research. Dr. Biddle lives in New Jersey with his wife, son Russel Lee, Jr., five, and two daughters, Virginia Ruth, twelve, and Valerie Ann, one.

1932

WILLIAM R. BERGREN, B.S. in Chemistry '32, Ph.D. in Biology '41, is acting as research associate in U.S.C. Medical School's Biochemistry Department. During his more than four years in the Army Sanitary Corps, he served at nutrition officer. The last three years before his discharge last October, Bill was chief nutrition officer for the Pacific Theater, serving at General Headquarters. In addition to his scientific work, which includes the publishing of several papers, Dr. Bergren is keeping up with his music and is conducting a private orchestral society in Los Angeles. He married Miss Marguerite Searle in 1941, and prior to the war was director of research at Truesdall Laboratories in Los Angeles.

1933

DONALD F. POULSON, Ph.D. '36, is associate professor of biology at Yale, working at the Osborn Zoological Laboratory. He spent part of the past summer at the Marine Biological Laboratory, Woods Hole, Massachusetts, collaborating in the study of cholinesterase activity in the well-known fly, *Drosophila melanogaster*. Dr. Poulson and associates are planning a series of investigations on relations between genes and the development of enzyme systems in *Drosophila* embryogenesis. Don has two sons, Donald B., six-and-a-half, and Christian F., four.

1934

GEORGE H. MARMONT, B.S. in mathematics '34, Ph.D. in biology '40, is assistant professor of physiology at the University of Chicago's Institute of Radiobiology and Biophysics. George was formerly section head-electronics in the Bendix Aviation Corporation's research laboratories in Detroit.

HAROLD D. MICHENER, Ph.D. '37, is working on antibiotics of microbial origin at the Western Regional Research Laboratory of the U. S. Department of Agriculture at Albany, Calif. The Microbiological Section in the Laboratory, a group of about ten, is at present occupied principally with problems in this field. Dave's interest is in the production, isolation, and bioassay of antibiotics which are active against fungi. The immediate objective is to get antibiotics which are active against fungi pathogenic to plants. Dr. Michener was married in 1939 to Miss Edna Caney in Honolulu. They have three children, Rose Patricia, four, Elizabeth Ann, two, and Robert Charles, seven months.

1935

RALPH E. HOMAN, JR., spends half his time in the practice of internal medicine in Los Angeles and half as instructor in pathology at U.S.C. Medical School, where he received his M.D. first in his class in 1939. With the latter Ralph is chiefly concerned with the application of pathology to medicine, and the mechanics of disease. In addition, he acts as preceptor to a ward at the Los Angeles County Hospital, serving to coordinate the attending staff and residents, acting as supervisor of the ward. With another doctor, Ralph is giving a postgraduate course in recent advances in diagnosis and treatment for the returning veterans one night a week. At present Dr. Homan is starting a hobby of model railroading in his spare time. He was married in 1942 to Miss Noradeane Hamilton. The Homans have two children, Nancy Jane, three, and Ralph E., Jr., one.

1936

CLARENCE W. CLANCY, who did three years of graduate work between 1933 and 1936, is now assistant professor of biology at the University of Oregon. He married in the summer of 1939, and now has two daughters, Angharad Jean and Patricia Ellen, born in 1943 and last March, respectively. Prior to his appointment at Eugene, Oregon, Clancy was a captain in the Army Air Corps.

1937

HARRY H. MILLER has been assistant surgical resident at Boston City Hospital since his discharge from the Army Medical Corps as a major last August. Following his graduation, he spent four years at the Harvard Medical School, graduating in 1941. For the next year and a half he was at the Boston City Hospital as an intern and surgical resident. From there he went into the Army. While in Service, Harry attended the School of Aviation Medicine, and was with the Air Forces as a flight surgeon, 22 months of which were spent in Italy. He anticipates about two more years' hospital training in surgery. Harry married Miss Ruth Macfadden in 1940. The Millers have one son, Harry H., Jr., three and one-half.

1938

PHILIP T. IVES, Ph.D., is now research associate in biology at Amherst College, Massachusetts. He is back on the farm where he was raised, living with his father, older brother, wife Dorothy Ann whom he married in June 1940, and three children, Richard Truman, four, Elinor Gage, two, and a two-months old baby. The Ives raise most of their meat and vegetables, supply eggs for the Department of Biology wives, newts for embryologists, fruit flies for *Drosophila* philists, and recently hens for a new addition to the Department, a student of animal behavior. Phil's major extra curricular interest is his family, but he reports the community and cultural life of Amherst and Northampton have their places, too. Recreation in addition to these is afforded by fishing in a little trout stream "a stone's throw away," tending a large garden, and working up seven to ten cords of wood each year from the Ives' wood lot.

Dr. Ives' professional interests center around the problem of evolution, with studies of population genetics and mutation (spontaneous) phenomena of *Drosophila* as the points of attack. As a secondary line of work, he is making a study of factors influencing the sex-ratio in human beings, in which work Phil has the collaboration of two former Amherst faculty and student associates. Some of their data will be published eventually. Dr. Ives describes it as nothing startling, but some interesting stuff.

GEORGE T. RUDKIN, Ph.D. '42, is a research fellow at the Lankenau Hospital Research Institute in Philadelphia. His present interest is *Drosophila* nutrition, and nutrition and synthetic media for micro-organisms in general. George was discharged from the Army Air Corps as a first lieutenant in December, 1945, and married the former Diana Lianos last October.

1939

WILLIAM E. BERG is now a research fellow in the Division of Medical Physics at the University of California. He received his Ph.D. at Stanford in 1946, and was present at Test Baker at Bikini Atoll last July. Bill plans to continue

with research and teaching in the biological field.

1940

SHELDON CYR CRANE left his position as chemistry research assistant with a Navy project at CalTech last summer to become a research assistant at Scripps Institute of Oceanography at La Jolla. He was married in 1941 to Miss Aleta Smith of Los Angeles, and became the father of a son, Sheldon Cyr III, last November. Sheldon plans to work for his Ph.D. at Scripps Institute and U.C.L.A.

FRANK W. DESSEL, JR., since his discharge as a lieutenant from the Navy where he was an aerologist, is working as a pharmacist. He plans to take graduate work at the University of California for his secondary teaching credential. Frank was married while a senior to Mary Catherine Troutman. The Dessels have two sons, Frank William III, four, and John David, almost one.

1941

JOHN D. SPIKES, since his discharge from the Medical Corps as a staff sergeant, has been a teaching fellow in embryology at the Institute. He plans to continue toward his Ph.D. John was married to Anne Dorland in 1942.

1942

ERIK V. HEEGAARD, M.S. in Chemistry '40, Ph.D. in Biology '42, has very recently been promoted to chief development chemist in charge of all unit processes, analytical and physical chemistry laboratory activities of the Development Department of the Amino Products Division, International Minerals and Chemicals Corp., San Jose, California. His two previous posts have been senior project chemist with the Corporation, and research associate in Chemistry at Stanford.

In April 1947 the Amino Products Division's new San Jose plant started operating to produce two and a half million pounds of monosodium glutamate per year. Erik's work in the Development Department is connected with devising new or improved industrial processes for the isolation of amino acids from natural products. He reports that the work is very interesting and a challenge, since new ideas have to be evolved to carry out these projects on an industrial scale. The Department hopes soon to put in a laboratory for microbiological determinations of amino acids, using *Neurospora* and other organisms.

Dr. Heegaard and his wife, Lilli, have two children, Ingrid Christina, three, and Carl Linus, four months.

ADRIAN S. MAYER is a senior medical student at Northwestern, and will graduate in August. For a year after graduation he worked as a mathematician for the Douglas Aircraft Co. He is currently engaged in research concerning the effects of procaine hydrochloride on traumatic edema. While the results so far have been negative, they are interesting enough to publish. After receiving his M.D. degree, Adrian plans to work for a master's degree in basic science to fulfill a requirement for specializing.

1943

WILLIAM HOVANITZ teaches genetics and evolution mechanisms as part of his duties as assistant professor of botany and assistant biologist in the Laboratory of Vertebrate Biology at the University of Michigan. Bill is also

research associate in the University's Botanical Gardens. His current research consists of investigations on macromolecular chromosome structures and the genetics of *Peromyscus* and *Colias*.

RALPH G. H. SIU, Ph.D., director of the Philadelphia Quartermaster Depot Biological Laboratories, is interested in biochemical mechanisms, specifically the microbiological degradation of cellulose, wool and oils.

1944

THOMAS C. FLEMING, ex. '44, is working in a Veterans' Administration hospital at Tuscaloosa, Alabama, on detached duty with the Army Medical Corps. Prior to this service he was resident physician at St. Luke's Hospital in New York. Tom married Miss Sarah McGraw last summer. He expects to remain on active military duty until the summer of 1948, after which he plans to return to the Institute to work for a Ph.D. in biophysics or physiology.

ROBERT P. HOLMES, ex '45, who received his senior certificate under the Navy V-12 Pre-Medical Program at the Institute, is a senior at the Louisiana State University Medical School.

F. HARLAN LEWIS, special student from 1942 to 1944, is an instructor in botany at U.C.L.A. Harlan completed work for his Ph.D. at that school in 1946, after discharge from the Army's Chemical Warfare Service. He was married in 1945 to Miss Margaret Ensign of San Marino. Harlan plans to spend 1947-48 as a National Research Council Fellow at the John Innes Horticultural Institute, London, England, working on the cytology of *Godetia* as the initial step in studying problems of speciation in that genus.

MAX L. PANZER, teaching assistant at the Institute, has biochemical research in progress toward his Ph.D.

1945

CLYDE A. DUBBS, B.S. in chemistry '43, Ph.D. in biology '45, is a research associate in bacteriology at U.S.C. Medical School. His chief interests lie in the study of polio virus in tissue culture, especially with labelled C^{14} compounds; the biosynthesis of some variety of labelled C^{14} compounds using *Chlorella*; and the biochemistry of essential oils.

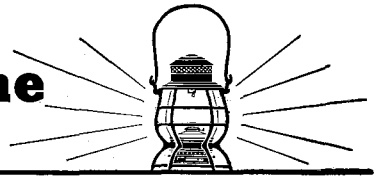
1946

WALTER D. BONNER writes that he is trying to convert himself into a better plant biochemist at Harvard University. Dr. Bonner is studying the growth process of the *avena coleoptile* by observing the effects of various enzyme inhibitors on growth and on respiration, how these effects may be overcome, and what chemical changes, if any, take place in the plant tissue. By this type of study, he hopes to find out something about the growth process and the nature of the effect of auxins on growth. In particular he is interested in studying the role of the organic acids which seem to play such an important part in plant respiration and growth.

On the non-scientific side he is trying to take advantage of living in Boston where there is lots of good music, theater, etc. After a serious study of clarinet playing, during the winter he did as much skiing as possible, and in late spring took up rock climbing. Another of Dr. Bonner's activities is looking for a place where he and his wife, Josephine, can live.

DAVID R. ESNER is a research assistant in Pasadena. He plans to return to the Institute to work for his Ph.D. in embryology.

The Main Line



MAY, 1947

Our fan mail is getting more distinguished by the minute.

Recently Southern Pacific's President A. T. Mercier received a letter from Newton B. Drury, Director of the National Park Service, and eminent Californian, commenting on our February *Main Line* advertisement. Mr. Drury wrote:

"I have just read with considerable interest S.P.'s newsy advertisement... which points out the fact that, since the establishment of Big Bend National Park, S.P. serves seven of these areas—more than any other railroad.

"Your public relations staff is far too modest. In addition to the seven national parks, S.P. serves nine national monuments, including White Sands, Pinnacles, Joshua Tree, Lava Beds, Saguaro, Tumacacori, Capulin Mountain, Casa Grande and Chiricahua, not to mention the San Jose Mission National Historic Site in San Antonio and Chalmette National Historical Park in New Orleans.

"That there is an increasing public interest in our national monuments is evidenced by the fact that they were visited by more than three and a half million people during the travel year ended September 30, 1946. Of these areas in the Southwest, White Sands and Joshua Tree National Monuments had the largest attendance."

We are grateful to Mr. Drury for his appreciation of our effort to make these *Main Line* columns newsy and informative. We also like being accused of modesty, as the urge to use superlatives in travel advertising is almost irresistible.

We would respectfully add to Mr. Drury's list of the national monuments we serve the Muir Woods, a Redwood grove just across the Golden Gate from San Francisco. And we would like to point out that we feature the national parks in our advertising because they are the recognized "blue ribbon" scenic wonders of America.

On the other hand, we realize that national parks sometimes start out in life as national monuments. A

good example is Carlsbad Caverns, which was proclaimed a national monument by President Coolidge in 1923 and elevated to a national park by President Hoover in 1930.

We are keeping an eye on White Sands National Monument because it has received so much publicity since the Army started firing the captured German V-2 rockets near there. Maybe White Sands will be a national park some day, too.

You can get to White Sands from Alamogordo, which is on the main line of our Golden State Route between Los Angeles and Chicago. But if you want to see a V-2 in action, you'll have to check with the Army.

The First Atomic Bomb

The day may come when the little town of Alamogordo, New Mexico, will be known as the shrine of mankind's entry into the Atomic Age. It was not far from Alamogordo that American scientists touched off the first atomic bomb.

Did You Know—

And now, if you'll pardon us, we'd like to indulge in a few superlatives. Did you know, for example—

That Southern Pacific is the largest industrial company west of the Mississippi?

That Southern Pacific is the third largest railroad in the country? Only the Pennsylvania and New York Central carry more freight and passengers.

That Southern Pacific is the only major railroad with headquarters on the West Coast?

That Southern Pacific has more miles of line than any other American railroad?

That Southern Pacific has the most miles of line protected by automatic block signals.

That Southern Pacific's streamlined *Daylights* between San Francisco and Los Angeles are the most popular trains in America?

That Southern Pacific has never defaulted on a financial obligation?

We thought you might be interested in these facts about your neighbor—Southern Pacific.

—H. K. REYNOLDS

S·P The friendly Southern Pacific