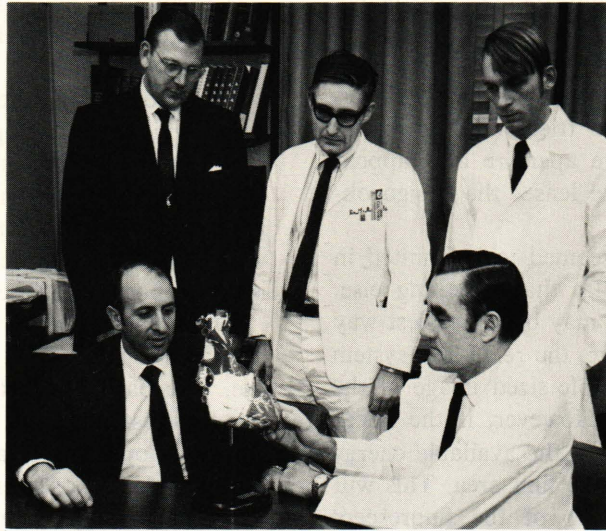


WITH THE AUTHORS



The authors of the paper on "A Servo-Controlled Pulsatile Heart Pump," shown above discussing the structure of the heart, are: (seated) W. Seamone and Dr. V. L. Gott, and (standing) B. F. Hoffman, Dr. L. A. Jacobs, and E. H. Klopp. A short biography of each follows.

W. Seamone contributed an earlier article to the *Digest* on "Feedback Technique Improves Efficiency of Hydraulic Servos" in the November-December 1964 issue. He is a native of West Virginia and received the B.S. degree in aeronautical engineering from The Catholic University of America in 1950. Before he came to APL in 1953, he was employed by Bell Aircraft Corp. where he was a specialist in hydraulic servomechanisms. At APL Mr. Seamone has been involved in the development of a variety of automatic flight control systems as well as recent biomedical engineering projects such as upper limb prosthetics research and the artificial heart pump. Since 1966 he has been Supervisor of the Controls Group of the Missile Systems Division.

Dr. V. L. Gott received his M.D. degree from Yale Medical School and obtained his training in cardiovascular surgery at The University of Minnesota Hospital. Following completion of his surgical residency in 1959, he was on the faculty of The University of Wisconsin School of Medicine until 1965. Dr. Gott

joined The Johns Hopkins Medical Institutions in 1965, where he is Professor of Surgery and Cardiac Surgeon-in-Charge. His research interests are primarily related to the development of artificial devices and prosthetics for the cardiovascular system. These have included the development of prosthetic heart valves, the development of surfaces for prosthetic devices that will repel clotting, and studies on several different types of support system for the failing heart.

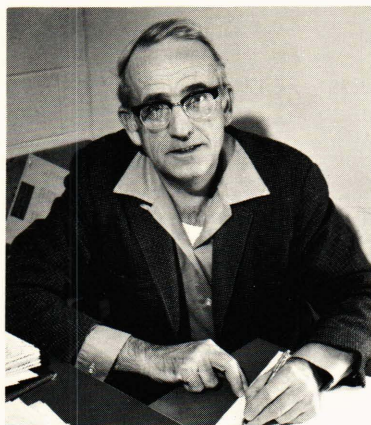
B. F. Hoffman was born in West Palm Beach, Florida, and received both the B.S. and M.S. in electrical engineering from the University of Maryland. Employed at APL in 1959, he is a control system engineer who specializes in the instrumentation aspects of automatic control system development with emphasis on electronic solid state design. Since 1966 Mr. Hoffman has been supervisor of the Instrumentation Project of the Controls Group.

Dr. L. A. Jacobs, a native of Michigan, obtained his B.S. degree (summa cum laude) from Miami University of Ohio in 1965. He at-

tended The Johns Hopkins University School of Medicine where he received his M.D. degree in 1969. Dr. Jacobs spent his research time while in Medical School in the Cardiovascular Surgical Research Laboratory where he worked under the direction of Dr. Gott. Dr. Jacobs at present is an Intern in the Department of Surgery at The Johns Hopkins Hospital.

E. H. Klopp was born and raised in Lombard, Ill., a suburb of Chicago. He attended the University of Kentucky, from which he received his bachelor's degree in mechanical engineering (cum laude) in 1966. The following year he became a Ph.D. candidate in Biomedical Engineering at The Johns Hopkins University, where his research has been directed by Dr. Gott. After some early work in collaboration with Dr. Jacobs on the deposition and removal of thrombi from prosthetic surfaces in the blood stream, he became interested in the problems associated with the left-heart bypass devices and is currently pursuing the development of the intrathoracic unit described in the article.

WITH THE AUTHORS (continued)



G. H. Mowbray, co-author of the article "... As My Eye is Part of Me," has been represented twice previously in the *Digest*. He was the author of "Some Human Perceptual Limits" in the January-February 1962 issue and also of a hobby paper on "The Technology of Wine-Making" that appeared in the July-August 1964 issue. Dr. Mowbray is a native of Maryland and received both his B.A. and M.A. degrees in psychology from The Johns Hopkins University. His Ph.D. in experimental psychology was received from Cambridge University in 1953. Dr. Mowbray is a specialist in experimental psychology, psychophysics, and engineering psychology and is a member of the Theoretical Problems Group of the Research Center. Dr. Mowbray has memberships in the American Association for the Advancement of Science, American Psychological Association, Eastern Psychological Association, Psychonomic Society, and

the Experimental Psychology Society of Great Britain. He is currently studying the feasibility of using a visual transient response in the early detection of simple glaucoma.



J. F. Bird, co-author of the article "... As My Eye is Part of Me," is a native Pennsylvanian, and received his A.B. degree from the University of Scranton and the Ph.D. in theoretical physics from Cornell University in 1958; he was employed by APL also in 1958. He is a member of the Theoretical Problems Group of the Research Center where he has done work in combustion on the instability of rockets, in astrophysics on the formation of the stars, and in psychophysics on perception by the eye. Dr. Bird is a member of the Philosophical Society of Washington, Maryland Academy of Sciences, American Physical Society, and the American Association for the Advancement of Science.



B. F. Hochheimer, author of "A Camera for Recording the Dynamic Blood Circulation of the Eye," has contributed two earlier papers to the *Digest*. He was co-author of "Laser Modes," which appeared in the January-February 1964 issue, and was the author of "Fourier Transform Spectroscopy" in the November-December 1967 issue. He was born in Rochester, N.Y., graduated from Saint Bonaventure University with a B.S. in physics, and received a Master's degree in optics from the University of Rochester in 1953. Mr. Hochheimer was originally employed at APL in 1954 but left in 1956 to go to Hayes Aircraft Corporation. He then returned to APL in 1960 as a Physicist in the Research Center. He is a specialist in design and experimental work in optics, spectroscopy, and infrared physics, and is a member of the Optical Society of America.

APL COLLOQUIA

- Nov. 7—"The APOLLO 11 Laser Ranging Retro Reflection Experiment," by C. O. Alley, Jr., University of Maryland.
- Nov. 14—"Pulsars and the Crab Nebula," by S. P. Maran, National Aeronautics and Space Administration.
- Nov. 21—"Department of Defense R & D Policy," by S. E. Clements, Department of Defense.

Dec. 5—"The Tanker Manhattan through the Northwest Passage," by R. C. Powell, U.S. Coast Guard.

Dec. 12—"High-Resolution Scanning Electron Microscopy," by A. V. Crewe, University of Chicago.

PATENTS

- W. Seamone—*Fuel Throttling Computer*, Patent No. 3,448,947.
- C. T. Pardoe—*Time Interval Plot-*

ting Apparatus for an Input Pulse Series, Patent No. 3,453,541.

J. H. Kuck—*Phase Computer*, Patent No. 3,453,550.

J. B. Garrison—*Search Antenna System*, Patent No. 3,453,637.

H. B. Riblet and I. H. Schroeder—*Mechanical Analog Computer for Satellite Tracking Angles*, Patent No. 3,456,350.

F. F. Mobley and R. E. Fischell—*Enhanced Magnetic Damping System*, Patent No. 3,456,900.