

## NOTES AND NEWS

### EASTER SEAL REPORT

According to the 1968 annual report of the National Easter Seal Society for Crippled Children and Adults, titled "Focus on People," the number of crippled Americans receiving Easter Seal services rose to 253,313 last year from 237,787 in the previous year—up to 6.5 percent.

During the same period, the number of comprehensive rehabilitation centers increased to 77 from the previous year's 53, up 45 percent, the report said. Treatment and/or diagnostic centers also increased from 132 to 148.

Other service increases listed in the report included vocational training, evaluation, and counseling. The workshops in which this takes place increased from 34 to 42. One aspect of this was the placement of 747 rehabilitated adults in satisfactory jobs, while another 6,442 are receiving training in various Easter Seal workshops.

Major emphasis on the basic Easter Seal program of Information, Referral, and Follow-up (I.R. and F.) included a week-long training institute for Easter Seal personnel, a detailed instruction manual, and extensive field consultation.

In reference to workshops, I.R. and F. and other increases in service, Leon Chatelain, Jr., president of the National Society, said in his introduction to the report:

"Our scope has broadened, too, to include a greater variety of handicaps, some previously unrecognized and others once deemed hopeless. Hence, the number of patients and their families who receive Easter Seal professional help grows each year; facilities and programs are expanded to add services of nonmedical nature; and the cost of all this is vastly increased.

"We of Easter Seals have by no means realized our full potential to help the handicapped, however. We look unceasingly for new ways of delivering service. Indeed, our reach will always exceed our grasp, so long as our focus is sharply and surely on people—those vast numbers of people who need us—crippled children and adults. With the dynamic leadership of thousands of volunteers throughout the country the vitality of Easter Seals will assure steady progress."

Mr. Chatelain, Washington, D.C., architect, is serving his second term as president. Sumner G. Whittier is executive director of the Chicago-based organization, oldest and largest of its kind in the United States.

The Easter Seal Society nationwide operates 2,844 facilities and programs through its affiliates in every State, Washington, D.C., and Puerto Rico. These are staffed by more than 2,000 full-time and an equal number of part-time paid staff making up the largest rehabilitation work force outside of the Federal Government.

Although income reports for 1968 are not yet complete, the 1967 income of \$32,877,750 indicates that Easter Seal total income has grown by 82 percent in the last 7 years, thus making possible expanded services nationwide.

### EXCHANGE OF LETTERS ON THE BOSTON ARM<sup>a</sup>

*Editorial Note: We are pleased to reprint the following exchange of letters relating to the history of the development of myoelectric prostheses. We would welcome any additional information along these lines.*

Reference is made to your report in the November 1968 issue of IEEE SPECTRUM (p. 160) about the "Boston Arm," especially to the statement that ". . . In the late 1950s the British and the Russians had begun to use electric signals from muscles to operate a simple open-and-close artificial hand . . ."

I would appreciate it if you would publish the following explanation to clarify once and for all the true scientific priority of an important invention so far obscured by the turbulent post-World War II years.

The inventor of the first electronically operated artificial arm and hand is Dr. rer. nat. Reinhold Reiter, then student at the Munich University. His first written report is dated May 1945. On August 30, 1945, he submitted the official patent application through the patent attorney Weickmann (Munich). An extended application was resubmitted on October 18, 1946, through Justizrat Heinrich Hippler, notary public in Munich.

The first printed publication appeared in the September 1948 issue of the publication, *Grenzgebiete der Medizin*. The placement of electrodes is identical to that of the Boston Arm. The opening and closing of fingers was actuated by muscle contractions upon command from the brain. The pulse shapes and original pulse amplifier are shown in the paper.

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<sup>a</sup> Reprinted, with permission, from the "Forum" section (p. 6) of the February 1969 issue of The Institute of Electrical and Electronic Engineers, Inc. publication, the "IEEE Spectrum."

As Dr. Reiter's business manager, I participated in all demonstrations, hospital testing, and prototype building in Munich, and I have a complete file of the original data on this invention.

Further development of the system was terminated due to the lack of adequate funds after the German currency reform in 1948. One pre-production sample of the "Reiter Kunsthand" was shown publicly at the Exportmesse Hannover (Hannover Export Fair) in spring 1948 by the firm Anders & Co.-Gauting, our pilot run subcontractor. This simple, reliable design suitable for mass production stirred considerable interest.

After receiving his doctorate, the inventor selected a different area of specialized research as his field of interest. The field of myoelectricity as applied to prosthetic research was thus left open for new entries. The development of transistors destroyed size and power consumption barriers.

Since 1955, Dr. Reiter has published over 70 scientific papers and authored two books in the area of bioclimatology, atmospheric, meteorologic, tropospheric, aerosol, and radiation research. He is now in charge of "Physikalisch-Bioklimatische Forschungsstelle," a research establishment in Garmisch-Partenkirchen.

I have been fully authorized by Dr. Reiter to undertake this step to clarify the priority of the "Kunsthand" invention. The available documents were shown recently to Dr. Dudley S. Childress from the Medical School of Northwestern University, who is engaged in a similar myoelectric prosthesis research project. Dr. Childress expressed his interest in correcting the situation by notifying the leading publications in this field about the early accomplishments of Dr. Reiter.

MARIAN V. PODLUSKY,  
*Chicago, Ill.*

Marian Podlusky's illumination of Dr. Reiter's premier development of an electromyographically controlled prosthesis provides additional evidence (if anyone really needed it) of the fallibility of information retrieval systems. Despite a carefully compiled bibliography of 156 entries in one of the original M.I.T. graduate student theses and my now seven-year membership on the Committee on Prosthetics Research and Development of The National Academy of Sciences-National Research Council, neither I nor any of my colleagues was aware of Dr. Reiter's work. We very much appreciate having history set straight.

I would, however, like to avail myself of this opportunity to draw several distinctions between Dr. Reiter's design (and the early British and Russian hands, which are very similar) and our "Boston Arm."

One comment reflects that sophistication made possible in part by postwar developments in electronics and electromechanical components. Thus, whereas the German, British, and Russian hands in their original form were off-on, open-loop devices, the "Boston Arm" provides proportional control between the muscular activity of the amputee and the response of the limb and force feedback of the load carried by the limb.

But the more significant differences between our development and all previous and, in fact, current electromyographically controlled prostheses is our deliberate and careful symbiosis of the brain and neuromuscular physiology of the amputee with the device. Whereas, for example, Dr. Reiter's hand used unrelated muscles in the upper arm to bring about finger motion, we use the EMG from those residual muscles in the amputee's upper arm stump to control the heretofore anatomically related elbow joint. As a consequence an amputee fitted with the "Boston Arm" rotates his electromechanical elbow by literally thinking, in the normal, volitional sense, of flexing his biceps and triceps muscles. This use of anatomically sound efferent neuromuscular control coupled with force, motion (and, in research versions, position) feedback into the afferent sensory nervous system of the amputee provides a prosthesis that more closely approximates the cybernetical ideal.

ROBERT W. MANN, M.I.T.

### INTERNATIONAL CONFERENCE ON RESEARCH IN LIMB PROSTHETICS AND ORTHOTICS

The Committee on Prosthetics Research and Development, with the cooperation of the International Committee on Prosthetics and Orthotics of the International Society for Rehabilitation of the Disabled, sponsored an International Conference on Research in Limb Prosthetics and Orthotics, April 28—May 2, in Berkeley Springs, W.Va. The primary purpose of this conference was to determine, as far as it was practical to do so, the *status of research activities throughout the world, and to develop recommendations for future investigations in these fields.*

To do this in any reasonable length of time made it impossible to have each research group throughout the world report on its particular effort. Therefore, key people from each country were asked to report for the entire effort of their particular country.

With regard to research efforts in the United States and Canada, the chairmen of Subcommittees and Panels of CPRD made presentations covering appropriate activities in North America.

For many reasons this meeting was not an open session; however, a comprehensive, useful report of the proceedings of the meeting is being published.

**NEW AFB PUBLICATION ON PROBLEMS OF  
RETARDED BLIND CHILD**

The Proceedings of an Institute on the Blind Child Who Functions on a Retarded Level, which was held in Austin, Tex., May 8-10, 1968, are outlined in a new publication by the American Foundation for the Blind. The challenge presented by the blind child who functions on a retarded level, and possible ways to meet the challenge, are detailed in this publication. Included also are papers presented by special educators and other authorities concerned with the multiple problems of retarded blind children.

The following subjects are covered in the Proceedings: Developmental Learning, Psychotherapeutic Learning, Conditioned Learning, Environmental Designs, An Overview of Care and Management, Educational and Psychological Management, and Community and Institutional Services.

Copies of the 110-page Proceedings may be obtained from the Publications Division, American Foundation for the Blind, 15 West 16 Street, New York, N.Y. 10011. The price is \$2 per copy.

**COCHAIRMEN HEAD TASK FORCE ON AGING BLIND**

The American Foundation for the Blind has named Dr. Robert Morris, professor of Social Planning at Brandeis University, and Mr. Garson Meyer, five-time president of the National Council on Aging, to serve as cochairmen of its newly established National Task Force on Geriatric Blindness.

One of the first duties of cochairmen Morris and Meyer will be the appointment of the other members of the Task Force. The specific aims of the Task Force will be to analyze and assess the information on aging blind and determine a course of action to be coordinated at national and local levels.

The need for such a Task Force was pointed up at a research conference on geriatric blindness and severe visual impairment, convened by the American Foundation for the Blind in cooperation with the Administration on Aging of the Department of Health, Education, and Welfare.

The research showed that more than half the blind persons in the United States are over age 65; most are over 70. Additional research into services offered for the aged blind pointed out a great inequity between the numbers of geriatric blind and the services available to them. The immediacy of the problems prompted the American Foundation for the Blind to organize national leadership in the fields related to the problem.

**MILTON FRANKLIN METFESSEL**  
**1901-1969**

Apparently the victim of a flood caused by heavy rains in Mint Canyon, Calif., Dr. Milton F. Metfessel, professor emeritus of psychology at the University of Southern California, was found March 6, 1969, covered with silt about a mile downstream from the family ranch at Saugus. He had been missing for about 10 days. His mired automobile was found on a flooded-out road near the ranch. He evidently tried to ford a stream, which had become a raging river, and was swept to his death.

Dr. Metfessel was born in Waterloo, Ontario, Canada, September 6, 1901. He was graduated from the Iowa State Teachers College in 1921, and earned the A.M. and Ph.D. degrees from the State University of Iowa in 1924 and 1925, respectively. He also studied at several European universities. He became professor of psychology at the University of Southern California in 1929, and taught there until retiring in 1967. During World War II he served in the U.S. Army Air Forces in the rank of lieutenant colonel.

Dr. Metfessel's work for the Veterans Administration on the development of "spelled speech" as an output for reading machines for the blind commenced in June 1955 while he was still an active faculty member at the University of Southern California. After November 1, 1960, the work was continued at Metfessel Laboratories under a new contract. Spelled-speech sounds developed by Metfessel are employed in the output of a portable home-style recognition reading machine for the blind developed at Mauch Laboratories, Inc. Notes on these developments appear regularly in the pages of this Bulletin.

We are all saddened by the passing of a man with such an impressive record in the service of both science and education.

H. FREIBERGER.

**AAOS TO SURVEY ORTHOPEDIC CARE IN THE UNITED STATES**

The American Academy of Orthopaedic Surgeons is making a comprehensive study of orthopedic care in the United States with the aim of improving the range and quality of orthopedic health service offered the American public.

A preliminary report to be titled "National Health Program for Orthopaedics" will be published early in 1969. This study will define problems and recommend solutions in all areas affecting the nation's health status, including service, research, education, and administration.

The report will cover: manpower requirements, the best use of allied health professions, length of medical school training, graduate education, medical costs, and standards for reevaluating practicing orthopedists.

Over 130 orthopedists from universities, government service, and private practice are participating in task forces as well as consultants from the National Institutes of Health and the U.S. Bureau of Health Services.

Dr. Floyd H. Jergesen, clinical professor of orthopedic surgery, University of California School of Medicine, San Francisco, and chief, orthopedic surgery, Veterans Administration Hospital, San Francisco, is chairman of the Academy committee coordinating the study.

Heading the program's four principal task forces are Drs. George T. Aitken, chief of orthopedic surgery, St. Mary's Hospital, Grand Rapids, Mich.; C. Andrew L. Bassett, director, Orthopedic Research Laboratories, Columbia University College of Physicians and Surgeons, New York City; Donald B. Lucas, vice chairman, Department of Orthopedic Surgery, University of California Medical School, San Francisco; and Fred C. Reynolds, professor of orthopedic surgery, Washington University School of Medicine, St. Louis.

The national office of the American Academy of Orthopaedic Surgeons is at 29 East Madison St., Chicago, Ill. 60602; John K. Hart is executive secretary.

### **CENSUS OF NATION'S DEAF**

The National Association of the Deaf expects to conduct a national census of the deaf in 1970.

The census is expected to provide data in the areas of: 1. demographic and social factors, such as age, sex, type of dwelling, and family composition and mobility; 2. hearing loss and communication skills, including cause of deafness, age at onset, communication methods, and hearing impairment of other family members; 3. work experience, such as vocational training, occupational and career history, status in labor force, income, and career aspiration; and 4. job-related activities, such as participation in trade unions and associations.

### **WHEELCHAIR DESIGN ENABLES OCCUPANT TO STAND**

A combination wheelchair and tilt-table in a single integrated unit, which enables a person paralyzed from the chest down to stand upright, won first prize at the 1968 Alcoa Student Design Merit Award Program. The designer was Peter W. Bressler of Ventnor City, N.J., who is a senior student at the Rhode Island School of Design.

The chair provides standing support for the user by lifting the armrests, whereby spring-action mechanisms straighten the chair to a position 10 deg. less than vertical. As the occupant straightens, the weight

shift retracts the chair's casters and drops the footplate, supplying added stability in the upright position. To return to the sitting position, this sequence is reversed. By incorporating the natural motions of standing no outside power source is required.

### LABORATORY ANIMAL CARE GUIDE

The second edition of "Guide for Laboratory Animal Facilities and Care," prepared by the Institute of Laboratory Animal Resources of the National Research Council-National Academy of Sciences for the National Institutes of Health of the Department of Health, Education, and Welfare, has been published.

More than 75,000 copies of the first edition have been distributed, and its reception in the scientific community has been very favorable.

The recommendations in the Guide are based on scientific principles and on expert opinion and experience with methods and practices that have proved to be consistent with the high quality care of laboratory animals.

For further reference, the Guide contains in the appendices a rather extensive selected bibliography as well as information on animal technician certification and Federal housing regulations for laboratory animals.

The booklet can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The price is 30 cents.

### BLIND TO BE TRAINED IN HOSPITAL WORK

It was recently announced by M. Robert Barnett, executive director of the American Foundation for the Blind, and Charles H. Silver, president of Beth Israel Hospital that Beth Israel has been chosen as the setting for a 3-year demonstration project in training blind people for jobs in hospitals.

The project, which is funded by the Social and Rehabilitation Service of the Department of Health, Education, and Welfare, is aimed not only at the training and placement of the students who will come to Beth Israel, but also at the development of techniques which can be used throughout the country by hospitals and State rehabilitation agencies.

The ultimate goal, according to Barnett, is to provide new employment opportunities for blind persons and to help relieve the growing manpower shortage in the nation's 7,000 hospitals.

The training program will be conducted by staff specialists of the Foundation in cooperation with Beth Israel training personnel and department supervisors. The project director is Arthur Voorhees, the Foundation's rehabilitation specialist.

The project was endorsed by the Greater New York Hospital Association several months ago, and many member hospitals expressed interest in participating. Voorhees said that Beth Israel was chosen after careful consideration of a number of factors, including proximity to suitable housing for the blind students, ease of mobility in the hospital, availability of training equipment, ability to provide a variety of training, office space for the project staff, and the enthusiasm of the hospital staff.

Plans call for the training of about 60 clients during the term of the demonstration project. Actual training will start in April 1969. The Foundation-Beth Israel team is selecting service jobs in the hospital that can be performed without the use of sight. The staff will also select the first client-trainees with the help of state rehabilitation agencies in the eastern part of the United States.

Selected clients will be men and women between the ages of 18 and 50 whose mobility, orientation, personal and social adjustment, physical ability, mental capacity, motivation, adaptability, and interest are conducive to satisfactory performance of the selected jobs.

Blind workers have demonstrated their ability to work in many service occupations in recent years, according to Barnett, but only a small number are now employed in a few hospitals. The demonstration project will develop specific training methods and techniques for teaching blind persons how to perform a variety of service and supportive jobs in large and small hospitals. It is expected to stimulate a significant acceleration in the employment of blind persons in hospital settings and to contribute to a solution of the nation's health manpower problem.

### **NEW MANUAL ON IMMEDIATE POSTSURGICAL PROSTHETICS**

A comprehensive manual on the most recent techniques in immediate postsurgical prosthetics employed by the Prosthetics Research Study group, Seattle, Washington, is being printed. The booklet will be sold by the Superintendent of Documents.

As soon as it becomes available, an announcement will be made and interested individuals will be notified.

### **PLEASE NOTE:**

We urge our readers to send us similar notes on clinical cases of interest such as the two that follow. A short write-up with the essential facts,

illustrations (if available), and copies of patient releases granting permission to publish would be all that is needed. Forward material to: Editor, Bulletin of Prosthetics Research, Research and Development Division, Prosthetic and Sensory Aids Service, Veterans Administration, 252 Seventh Avenue, New York, N.Y. 10001.

### EYEGASS SUPPORT FOR MAXILLOFACIAL PROBLEM

The following write-up was submitted by J. T. Kenny, Chief, Prosthetic Treatment Center, VA Hospital, Atlanta, Ga.:

A patient sustained loss of the left side of his face as well as his eye and nose due to a gunshot wound. His right eye became semi-fixed in an inferior medial position. The Eye Clinic prescribed eyeglasses for him; however, due to loss of his nose, there was no way to suspend the eyeglasses or right lens in front of his remaining eye.

To cope with this problem, a used headband from a hearing aid was obtained from the Audiology Clinic, and a spring steel corset stay was obtained from the Orthopedic Shop. One end of the corset stay was hooked (bent) to support the eyeglass bridge and the stay and headband were contoured anteroposteriorly to the patient's head (Fig. 1). Cut and riveted, the support is worn to hold the eyeglasses in place (Fig. 2 and 3).

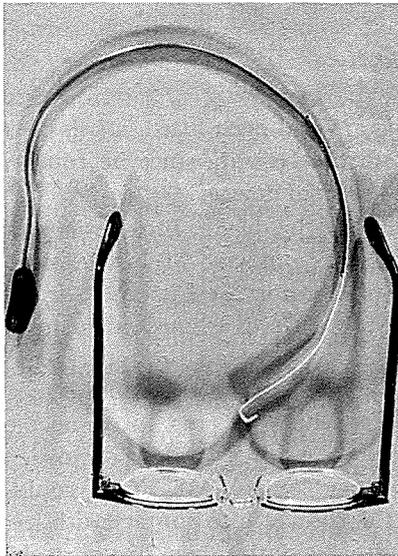


FIGURE 1

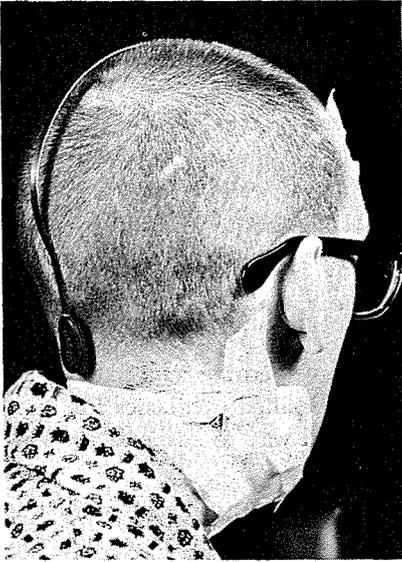


FIGURE 2

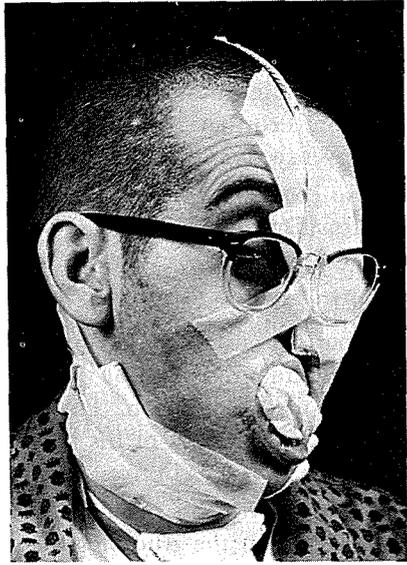


FIGURE 3

### COMBINED EFFORTS AID BLINDED BILATERAL ARM AMPUTEE

The following was submitted by Donald W. L. Smith, Chief, VA Prosthetic Distribution Center, Denver, Colo.:

Mr. John Frank is a full-blooded, Navajo Indian who was totally blinded, lost both arms below the elbows, and suffered damage to his hearing as the result of combat action in the Korean Conflict.

As a direct result of the review of blinded cases, conducted by the VA Department of Medicine and Surgery, a serious hearing loss was first noted. After a hearing aid had been fitted, it was discovered that the aid was virtually useless to the veteran, since he could not adjust the volume control with his terminal device.

Mr. William F. Dunbar, Jr., Chief, Prosthetic and Sensory Aids Service at VAH, Albuquerque, contacted Mr. Dave Mich, an engineer with the Special Weapons Laboratory at Kirtland Air Force Base, and outlined the problem. Mr. Mich developed a dustproof, remote volume control which could be mounted on the forearm of the left prosthesis (Fig. 4 and 5). The volume control was connected to the hearing aid by a replaceable cord of the type used to connect body worn hearing aids to external receivers. After several trials to determine the proper positioning of the volume control, Mr. Frank could readily adjust the volume by bringing the control into contact with his chin (Fig. 6). He is now able to communicate with others, listen to the radio, and utilize the talking book machine.

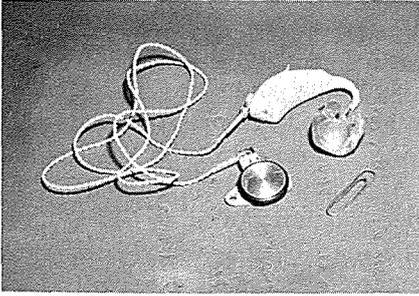


FIGURE 4

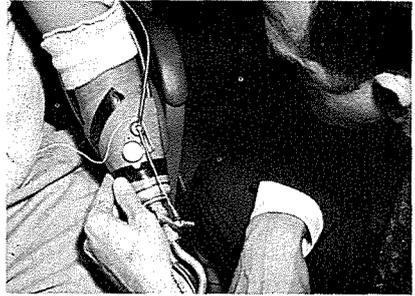


FIGURE 5

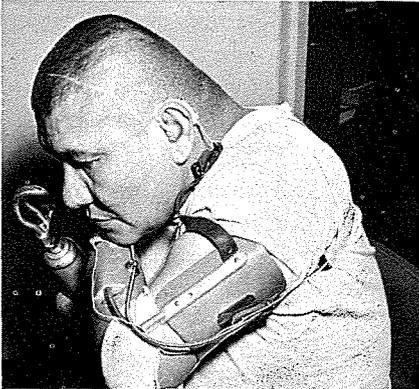


FIGURE 6

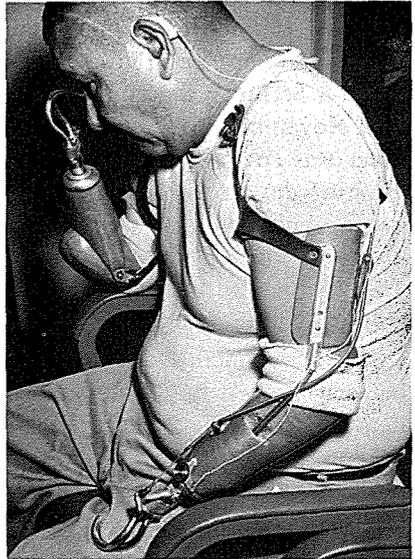


FIGURE 7

Mr. Frank is married, and his wife assists him in ambulation. He does not use a cane, nor does he have a guide dog. He has been fitted with a split socket prosthesis with step-up elbow hinge on the right, and a conventional below-elbow arm on the left (Fig. 7). He uses hooks on both prostheses. He has been fitted with bilateral, plastic artificial eyes, and wears them routinely. He wears his artificial arms routinely with good results, and has worn out two sets of arms since his discharge.

The collaboration of two Federal agencies in the resolution of the problem, in this case, is noteworthy. The cooperation of the Social Work Service Representative, Mr. Santy Sacco, with Mr. Dunbar of Prosthetics contributed to the rehabilitative effort. Also Mr. Al Stallcup, the Audiologist at the Lovelace Clinic in Albuquerque, added considerably to the solution of this veteran's problem.

### PSAS RETIREMENTS

The retirements of Mr. William H. Talley and Dr. C. F. Mueller were recently announced by the Prosthetic and Sensory Aids Service of the Veterans Administration. Mr. Talley had served in the Washington Office of the Prosthetic and Sensory Aids Service as Chief of the Plans and Policies Division and Dr. Mueller had functioned as Chief, Prosthetic Appliances and Accessories. The contributions which both these men made to the various PSAS programs were extremely noteworthy.

Mr. Talley's brilliant military career paralleled his accomplishments with the Veterans Administration. He rose from Private to Master Sergeant in 18 months. Upon completion of Officer Candidate School Training, where he graduated at the top of his class, he was commissioned a Second Lieutenant in September 1941. Promotions continued until November 1944 when he became a Major. His promising military career was cut short in January 1945 at Cher'ain, Belgium, when a direct hit from an 88 millimeter shell resulted in loss of both his legs below the knee. He also suffered severe concussion with middle ear complications. During his period of rehabilitation at Walter Reed General Hospital, he was fitted with prostheses. He was retired from the military service as a Lieutenant Colonel on December 14, 1946.

His employment with the Veterans Administration began shortly thereafter, when he became a Special Prosthetic Representative in the then Branch Office in Richmond, Va. In July 1947, he was brought in to Central Office in Washington, D.C., where he remained until his retirement.

Mr. Talley's contributions to the many programs conducted by the Prosthetic and Sensory Aids Service were outstanding. He demonstrated a remarkable capacity for developing plans, policies, and procedures for comprehensive programs, never losing sight of major objectives, and at the same time providing for the myriad details necessarily involved in developing a program. His keen insight and perception and his logical approach were always helpful attributes in the resolution of difficult problems. He provided leadership qualities which won for him the respect of his colleagues. The development of a corps of Prosthetic Representatives throughout the country was a source of justifiable pride for him.

His 22 years in prosthetics were filled with contributions which will long be remembered by those of us privileged to have worked with Bill. We shall miss his wise guidance and capable leadership. His accomplishments take on even greater significance when one considers the problems presented by his physical condition.

In partial recognition of his contributions, the highest award which can be given in the Department of Medicine and Surgery was awarded Mr. Talley by Dr. H. Martin Engle, Chief Medical Director. The commendation read as follows:

"This Commendation is awarded to William H. Talley in recognition of 29 years of loyal and dedicated Government service. As Chief, Plans and Policies Division, Prosthetic and Sensory Aids Service, during the past 22 years, he has never wavered in his determination to help the prosthetically disabled veteran. His superb leadership, unique talents, imaginative planning and tireless efforts have been responsible in great measure for the national and international recognition of the Veterans Administration in the field of Prosthetics."

Given at Washington, D.C.

This 28th day of February 1969.

(S) H. MARTIN ENGLE, M.D.,  
*Chief Medical Director.*



FIGURE 8.—Dr. H. Martin Engle, Chief Medical Director, on the left, presenting his Commendation to Mr. William H. Talley.



FIGURE 9.—Dr. C. F. Mueller, right, receiving his Commendation from Dr. John D. Chase, Assistant Chief Medical Director for Professional Services.

Dr. C. F. Mueller had been with the VA's Prosthetics Program even before it was officially established on November 1, 1945.

Dr. Mueller received his B.S. from the University of Wisconsin in 1927 and his M.D. degree from the same school in 1929. He interned at the California Hospital in Los Angeles and then began to practice in Chicago. He also taught at Loyola University for 5 years.

On September 2, 1936, Dr. Mueller began his Government career by becoming a Medical Officer in the Civilian Conservation Corps, where he served until August 26, 1939, at which time he was employed by the VA at the old Mount Alto Hospital. On April 1, 1941, he transferred to

the Outpatient Clinic, VA Regional Office, New Orleans, where he served until his entry into military service.

Dr. Mueller entered the Army Medical Corps on March 30, 1942, and initially served on the Aviation Cadet Board in Washington. He later commanded the 150th Station Hospital in London, England. He returned to VA Central Office in May 1945, while still serving as a Major in the Army Medical Corps, and was released from military service April 10, 1946.

As a Division and Section Chief, he contributed substantially to the development and success of the overall Prosthetic and Sensory Aids Service since its inception. One of the most effective programs of the Service, namely the Orthopedic Shoe Program, was conceived and developed by Dr. Mueller. This centralized program, now operating as the Orthopedic Shoe Service of the VA Prosthetics Center in New York, has made it possible to provide high quality orthopedic shoes to thousands of veteran beneficiaries at substantial savings.

A Commendation, as follows, was presented to Dr. Mueller by Dr. John D. Chase, Assistant Chief Medical Director for Professional Services:

“This Commendation is awarded to C. F. Mueller, M.D., in recognition of his more than 32 years of devoted service to the Federal Government. During the past 23 years he has contributed substantially to the development and success of the VA Prosthetic and Sensory Aids Program.”

### **CPOE PUBLICATIONS**

A limited supply of the following publications is available upon request from the Committee on Prosthetic-Orthotic Education, National Academy of Sciences, 2101 Constitution Avenue, Washington, D.C. 20418.

1. “Amputees, Amputations and Artificial Limbs”—An annotated bibliography of prosthetics articles, as listed in the *Index Medicus* from 1956 through 1968.
2. “Braces, Splints, and Assistive Devices”—An annotated bibliography of orthotics articles, as listed in the *Index Medicus* from 1956 through 1968.
3. “Review of Prosthetic-Orthotic Visual Aids.”—Summaries, evaluations, and pertinent information on approximately 60 prosthetic and orthotic films and slides.

These publications have been distributed to libraries in schools of medicine, physical therapy, occupational therapy, nursing, and social work, other selected libraries, and to VA facilities.