

5. Designate as the type of *Laverania* Feletti and Grassi (1889)—*Haematozoon falciparum* Welch (1897).

In summary, the actions recommended above would legalize existing practice as follows:

Plasmodium vivax (Grassi and Feletti, 1890), parasite of tertian malaria.

Plasmodium malariae (Feletti and Grassi, 1889, 1890), parasite of quartan malaria.

Plasmodium falciparum Welch (1897), parasite of malignant tertian malaria.

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A NEW PHILOSOPHY OF PREVENTIVE MEDICINE

To the significant accomplishments reported in a recent article concerning "Recent Contributions of the Preventive Medicine Service of the U. S. Army," which appeared in the issue of SCIENCE for July 21, 1944, there may be added accomplishments of a different nature which have resulted from the unique problems which occur in the Army Air Forces. I refer to the service which the Medical Department of the Army Air Forces has rendered to flying personnel.

The medical officer in the Army Air Forces has enjoyed always an intimate association with line personnel. From this association there has evolved a unique type of preventive medicine. It results from the interest of medical officers in equipment—equipment designed to protect flying personnel, thereby increasing their efficiency to that of their aircraft. Because the medical officer is concerned with the human organism, he scrutinizes equipment from the standpoint of its usability. In addition, he is in a position to supply the engineer with certain physiological data and criteria to be used as a basis for the construction of equipment.

That this point of view has actually been placed in practice is evidenced by the fact that the Air Surgeon has not only interested himself in oxygen equipment but also has been made responsible for its development. Without this equipment, personnel could not fly efficiently above ten thousand feet. It is obvious, therefore, that through the use of oxygen equipment the air man may operate efficiently at the altitudes to which his airplane is capable of flying. At the same time, he is protected from the adverse effects of anoxia.

A few of the other developments in which the Air Surgeon has interested himself, or for which he has been responsible, aimed at the maintenance of a nor-

mal physiology, the production of maximal efficiency or the prevention of injury in flying personnel are:

(1) *Shoulder harness*: This equipment is utilized to prevent injury on rapid deceleration, such as in a crash.

(2) *Parachutes and improved parachuting techniques*: At the instigation of the Air Surgeon, an extensive program in parachuting has been adopted by the Army Air Forces.

(3) *Anti-G equipment*: The Air Surgeon has been responsible for the development of equipment in the Army Air Forces for combating accelerative forces encountered in flight.

(4) *Gun turrets*: Anthropometric measurements and their applications have resulted in redesign of gun turrets and the arrangement of equipment in the turrets.

(5) *Aircraft instruments*: In order to promote the efficiency of pilots, the Air Surgeon has interested himself in standardization of aircraft instruments and cockpit arrangements, not only to prevent injuries, but also to increase the speed of learning and operation.

(6) *Flying clothing*: Investigations in the use of clothing, including electrically heated clothing, and other measures to combat cold and frostbite have been accomplished.

(7) *Flak suits*: The flak suit was originated by a senior flight surgeon, Brigadier General Malcolm C. Grow, U.S.A., as a measure to prevent injury to flying personnel from flak. It has proved to be successful and has prevented not only many serious injuries but also many deaths.

(8) *Ditching procedures*: Original impetus to the study of ditching procedures came from medical officers in the Army Air Forces in theaters of operation and has resulted in the prevention of injury to many individuals.

One of the most outstanding achievements in modern physiology has been the Altitude Training Program which was originated and is conducted by the Air Surgeon. This program has provided instruction in the physiology of flight to all flying personnel, in an attempt to prevent deleterious effects from flight through knowledge of the physiological problems encountered.

The opportunities for extension of this philosophy of preventive medicine to other fields in the postwar world are manifold.

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SEX DIFFERENCES IN THE SCIENCE TALENT TEST¹

IN each of the three years of the Science Talent

¹ The opinions or assertions contained herein are the private ones of the writers and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.