"Normally easterly winds extend up to 20,000 feet or higher over Puerto Rico during the summer, but the belt of east winds is occasionally reversed by the passage of a hurricane to the north of the island. Such was the case in 1950 when a hurricane passed northeast of the Virgin Islands on September 1–2 and was centered about 260 miles north of San Juan on September 3. The hurricane, an unusually severe one, produced westerly or southwesterly winds over Puerto Rico for about three days. For at least a part of the period, September 3–5, air flowing over Puerto Rico from the surface to 18,000 feet had previously passed over Hispaniola. It is possible that at some levels the air stream may have crossed eastern Cuba, but it is considered most unlikely that there was a previous recent history of the air over Florida."

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Received January 30, 1953.

Books for Israel

I SHOULD like to bring to the attention of my fellow scientists a project in which they can participate with the satisfaction that comes from the fostering of international growth of science and scientific communication. At the request of the United States Information Service, and under its sponsorship, a co-operative project, "Books for Israel," has been formed, as an expression of cultural good will between the people of the United States and the people of Israel. Its object is to supply textbooks in all branches of learning for the secondary schools, universities and institutes of this newest democracy.

American scientists need no reminder of the volume and quality of scientific work emanating from such laboratories as those of the Weizmann Institute, the Hebrew University, and the Technion, to name only the best known. The training of the newer classes of scientists is being severely handicapped by the inability of these Israeli institutions to acquire dollar exchange for the purchase of American textbooks.

The United States State Department is therefore sponsoring this project so as to help overcome this difficulty. Many individuals, institutional and industrial libraries, as well as book-publishers, have textbooks published since 1940 which have been superseded by newer editions, or represent duplications or overstock. These can well be used by the scientists of Israel. Gifts of these books will be appreciated far beyond any monetary value they may have to their owners.

We scientists can all join in this important contribution to international amity by sending such books to: Books for Israel, 115 King Street, New York 1, N. Y.

These may be sent via parcel post at book rates. Packages should be marked "Book Rate," which, from any point in the United States to New York, is $.08 for the first pound and $.04 for each additional pound. Since packages weighing up to seventy pounds are acceptable, it may be possible for some individual in any institution or organization to undertake the collection from his colleagues and thus save in shipping costs.

These books will be transmitted to Israel from funds supplied by the State Department's Point IV Project.

A list of technical and scientific subjects, in which texts are desired, is appended. Please note that these books should be in good condition and published since 1940.

Aeronautics, agriculture, applied chemistry, architecture, astronomy, aviation medicine, bacteriology, biochemistry, biology, botany, business management, chemical engineering, chemistry, civil engineering, dentistry, electrical engineering, engineering.

Firearms, first aid, food technology, forest products, forestry, geography, geology, gynecology and obstetrics, heat and power engineering, hospitals, human anatomy, industrial management, industrial medicine, mathematics, mechanical engineering, medicine, mental hygiene, metallurgy and metallography, meteorology, military and naval medicine, military science, mining engineering, miscellaneous technology.

Natural history, naval science, navigation, nursing, oceanography, personal hygiene, photography, physics, physiology, psychosomatic medicine, public health, safety engineering, sanitary engineering, shipbuilding, surgery, time and motion study, zoology.

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Received May 27, 1953.

A System of Nomenclature for the Varieties of Human Hemoglobin

RECENT studies have established the existence of three inherited variations of human hemoglobin (*1–4*). The occurrence of significant amounts of the fetal type of hemoglobin in a number of different anemias has also been demonstrated (*5*). Several different systems of nomenclature have been employed for the designation of the various hemoglobins thus far recognized.

On January 6, 1953, the Hematology Study Section of the Division of Research Grants of the National Institutes of Health sponsored a symposium on the general subject of hemoglobin abnormalities. One feature of that symposium was a consideration of the problem of nomenclature in this rapidly evolving field of investigation. There was general agreement on the need for a uniform and elastic system of designating the different kinds of hemoglobin. After considerable discussion of the various alternatives, it was agreed that the five varieties of hemoglobin thus far recognized be designated as follows:

1) Normal adult hemoglobin, or hemoglobin A, previously referred to as hemoglobin N (*5*), or hemoglobin *a* (*4, 6*). As subvarieties of normal adult hemo-

globin are recognized, they can be designated hemoglobin A_1, hemoglobin A_2, etc. (*6*).

2) Normal fetal hemoglobin, or hemoglobin F, previously also referred to as hemoglobin *f* (*6*, *7*). Again, with the discovery of normal subvarieties they can be designated hemoglobin F_1, hemoglobin F_2, etc. (*6*).

3) Sickle cell hemoglobin, or hemoglobin S, previously also referred to as hemoglobin *b* (*4*).

4) Hemoglobin C, previously referred to as hemoglobin *c* (*4*), hemoglobin III (*3*), or hemoglobin X (*8*).

5) Hemoglobin D, previously referred to as hemoglobin *d* (*4*).

It is suggested that as new varieties of hemoglobin are described, they be assigned letters of the alphabet in the order of their discovery, beginning with E, unless, as in the case of sickle cell hemoglobin, there is some outstanding associated hematological or clinical effect which will serve as the basis for a convenient mental association.

It is felt that adherence to this system, with the introduction of modifications only as necessitated by further discoveries, will tend to minimize confusion based solely on terminological differences.

The participants in the symposium:
AMOZ I. CHERNOFF
BEN FISHER
JOHN W. HARRIS
HARVEY A. ITANO
EUGENE KAPLAN
KARL SINGER
JAMES V. NEEL, *Chairman*

Hematology Study Section
Division of Research Grants
National Institutes of Health

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The First Law of Fluorescence

SLIGHTLY more than ten years ago, the present writer pointed out the "First Law of Fluorescence" (*1*). This was derived by reasoning analogous to the basic rule of photochemistry, known as the First Law of Photochemistry or the Grötthuss-Draper law. The latter law was first discovered in 1817 by Grötthuss; after an interval of about 26 years, this law was independently rediscovered by Draper; some 60 years later the Grötthuss-Draper law was quantified by van't Hoff.

In 1942 the First Law of Fluorescence was stated as follows: *"energy must be absorbed by a luminescent system before emission (i.e., luminescence) can occur"* (italics in original). An old reference has just come to my attention which establishes that this law is at most an independent rediscovery. In 1876 Eugene Lommel (*2*) published the following statement: "The general proposition can therefore be laid down, *that a body capable of exhibiting fluorescence fluoresces by virtue of those rays which it absorbs*" (italics in original).

Obviously, then, due credit for priority must be given Lommel, and any eponym must take this into consideration.

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Book Reviews

Methods and Principles of Systematic Zoology. Ernst Mayr, E. Gorton Linsley, and Robert L. Usinger. New York–London: McGraw-Hill, 1953. 328 pp. Illus. $6.00.

Zoological systematics, widely scorned a generation ago as a dusty routine, has recently come alive again. It is now being more widely taught, more earnestly discussed, and more intensely studied than ever before. One reason for renewed interest is that even the more limited aspects of the science are undergoing a revolution, from typological taxonomy to population systematics, a movement parallel to and strongly influenced by the shift from, strictly speaking, Mendelian genetics to population genetics. Another reason is that systematists have broadened their objectives. It has never been true, in spite of criticisms to that effect, that they were solely occupied in labeling specimens. It is, however, true that their wide concern with all phases of evolution, with comparative physiology, with ecological factors, and indeed with practically every aspect of biology is a relatively recent development.

In spite of all that renewed activity, there has been no general book on zoological systematics. Such a book is now provided by the skilled hands of an ornithologist at the American Museum (author of *Systematics and the Origin of Species*) and two entomologists at the University of California. Stress