

ENTOMOLOGY

**Mosquitoes, Young or Old,
Use Tactics of Modern War**

► **BABY** mosquitoes crash dive for the bottom when startled by shadows or electrical impulses. Adult mosquitoes, out on an air raid with blood in their eye, fly at different altitudes, according to their type.

These two bits of information are offered by scientists on opposite sides of the world. It seems man has nothing on the mosquito in practicing the tricks of modern warfare.

Studies on the "crash dives" that mosquito larvae use as their sole means of defense are reported by an Australian zoologist, Dr. I. M. Thomas of the University of Adelaide, in the *AUSTRALIAN JOURNAL OF SCIENTIFIC RESEARCH* (Feb.).

Dr. Thomas found he could startle the baby mosquitoes into diving by turning lights off and on or by sending a mild electric shock through the experiment tanks—but only for a while. After the process had been repeated a number of times, the larvae apparently said, "Nuts, there isn't any wolf!" At any rate, they stopped diving.

In the savanna country of eastern Colombia, Dr. Julian de Zulueta reports in the British journal, *NATURE* (July 29), mosquitoes of different species fly at different heights above the grass-tops while searching for animal blood.

The jungle mosquitoes do not like to cross areas cleared of grass, however, it was found by the researcher of Colombia's Ministry of Hygiene. Donkeys staked out in a clearing attracted far fewer mosquitoes than if tethered out in the savanna.

Science News Letter, September 30, 1950

PSYCHIATRY

**Organization to Work for
People's Peace of Mind**

► **GREATER** peace of mind for people throughout this nation and the world is the hope of a new organization formed in New York.

The organization is the National Association for Mental Health, Inc. It aims to "promote the welfare of mankind" by working for more adequate care and treatment of the mentally ill and mentally retarded, improvement and expansion of training programs for psychiatric and allied professions, stimulation of research and dissemination of information to the public about mental health and ways to preserve it.

The new association was formed by a merger of three voluntary organizations in the mental health field: the National Committee for Mental Hygiene founded in 1909 by Clifford Beers, author of *A MIND THAT FOUND ITSELF*; the National Mental Health Foundation; and the Psychiatric Foundation.

Staff members of the three organizations will comprise the staff of the new association. President is Oren Root of New York, and medical director is Dr. George S. Stevenson, for many years medical director of the National Committee for Mental Hygiene.

Science News Letter, September 30, 1950

OCEANOGRAPHY

**Anchovies off West Coast
Are Sardine Supplement**

► **ANCHOVIES** off the Pacific Coast may supplement the commercial sardine catch. A "census" of these silvery, greenish-backed fish has been completed in La Jolla, Calif., as a first step toward that possibility.

The survey was made by Dr. J. L. McHugh, assistant marine biologist of the University of California's Scripps Institution of Oceanography.

He found that at least three types of anchovies inhabit the open ocean waters of the Pacific Coast and at least two types make their homes in the sheltered bays.

One type of ocean-going anchovy is found from British Columbia to Monterey, Calif., a second type from Monterey to Cedros Island in Lower California; and a third type from Cedros Island to the southern tip of Lower California.

Science News Letter, September 30, 1950

PHYSICS

**Shimmer Affects Spotting
Dark Objects on Horizon**

► **THE VISIBILITY** of a dark object seen against the horizon is affected not only by the scattering of light by the atmosphere, but by "shimmer" or "optical haze."

A method of measuring this "shimmer," so important to military operations, is reported in the *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA* (Aug.) by Drs. Howard S. Coleman and Harold E. Rosenberger of the University of Texas in Austin, Tex.

Shimmer is due to small scale convection currents that cause small air masses of different optical density to cross the line of sight. Momentarily, the light from the background is directed along the line of sight and the light from the object under observation is directed elsewhere. The net result of this is a lessening of apparent contrast when a dark object is viewed against a bright background such as the sky or the horizon. In the case of a bright object viewed against a dark ground, there is no change in contrast.

The size of the object has a lot to do with the effect of optical haze on visibility. The nearer the size of the image of the object approaches the size of the entrance pupil to the photosensitive receptor used to "see" it, the more shimmer will diminish contrast.

Science News Letter, September 30, 1950

IMPORTANT: Even if you've never had formal scientific schooling, you can achieve a grasp of

**EINSTEIN
AND MODERN SCIENCE**

that is possessed by few persons not engaged in advanced physics!

At last you can obtain a thorough, professional understanding of Relativity Theory, Expanding Space, Non-Euclidean Geometry, The Scientific Method, and the revolutionary ideas of modern physical theory. When you have finished reading our just-published second revised edition of A. d'Abro's *EVOLUTION OF SCIENTIFIC THOUGHT FROM NEWTON TO EINSTEIN*, you'll know more about these concepts than almost anybody outside the field of advanced physics or mathematics—and we'll prove this statement, or your money will be promptly refunded!

No unexplained mathematics beyond that taught in high school is used. All technical terms are clearly defined and demonstrated. Yet this book is in no way comparable to ordinary superficial and over-simplified works designed for the use of the layman. As R. L. Bent of Rochester, N. Y., wrote in an unsolicited letter: "It is one of the few books on relativity which adopt non-mathematical methods of explanation, and yet retain accuracy and precision of statement."

An Intellectual Adventure

Reading this 481-page book is a profound intellectual adventure—one that you'll profit by so long as you retain an interest in science. You will learn how Newton's discovery that mathematics could be used as a tool of scientific investigation multiplied our power of thought in much the same way that Archimedes' lever multiplied physical power; how Riemann showed that three-dimensional "common sense" space was not necessarily the only one possible; how Maxwell formulated a theory of electro-magnetism that resulted in a host of electrical inventions that we use today; how Einstein's special and general theories of relativity were founded logically on nineteenth-century scientific thought. You will learn about the important and interesting theories and experimental work of Mach, Weyl, Eddington, Poincaré, Gauss, Heisenberg, et al. You'll find out about continuums, gravity, tensors, laws of motion, irreversibility of time, the discovery of space-time and hundreds of other fascinating related subjects. Typical comments: "The clearest account of special and general relativity I have ever read."—Professor Edward Kasner, Columbia University. "A model of semi-popular exposition."—New Republic.

SEND NO MONEY

You need send no money now. When the postman delivers your book, pay him just \$3.95, plus C.O.D. charges. If you are not convinced of the value of this great work, return it in ten days for a full \$3.95 refund. But you'll have to act quickly! Our edition is limited to 1500 copies. Detach and mail the coupon below **TODAY!**

FREE! 15 portraits of leading scientists in revised edition if you act now!

Dover Publications, Inc., SNL 13
1780 Broadway, New York 19, N. Y.

Please send me my free-examination copy of *EVOLUTION OF SCIENTIFIC THOUGHT FROM NEWTON TO EINSTEIN*. I will pay postman \$3.95, plus C.O.D. charges. I may return my copy for full \$3.95 refund in 10 days if it fails to meet with my approval.

NAME

ADDRESS

Check here if full payment accompanies order. In this case, transportation is free. Ten-day money-back guarantee.