

BIOCHEMISTRY

# New B Vitamin Discovery

There is hope that it may have an anti-anemia effect, although at present only the mealworm has been found to need this new vitamin, christened B<sub>T</sub>.

➤ DISCOVERY of a new B vitamin which may turn out to have an anti-anemia effect is announced by Dr. G. Fraenkel, of the Imperial College of Science and Technology, in the scientific journal, *Nature* (June 19).

The vitamin has been christened B<sub>T</sub>, the letter T standing for the scientific name for the mealworm, *Tenebrio molitor*.

The mealworm needs vitamin B<sub>T</sub>, in addition to at least eight previously known B vitamins and folic acid, for its growth and survival. Whether humans and other

animals or other insects need the new vitamin is not yet known. But Dr. Fraenkel points out that "there has scarcely been a case of a new B factor (vitamin) which was not ultimately proved to be of general significance."

Mealworms, he adds, react very sensitively to being deprived of folic acid as well as to lack of the new B vitamin. They may therefore be valuable for studying anemia where the lack of a convenient testing organism has always hampered progress.

Science News Letter, July 24, 1948

ZOOLOGY

# Smallest Possible Mammal

➤ THE SMALLEST possible adult mammal (not known to exist) would weigh about one-twelfth of an ounce, or two and one-half grams. Any warm-blooded fur-bearer smaller than that could not eat fast enough to keep its body fires going, calculates Oliver P. Pearson, zoologist at the University of California.

Mr. Pearson bases his figures on measurements of the metabolism rates of shrews, the smallest of known mammals, which burn up their body-fuels faster than any of their larger distant relatives. The smallest of the shrews he studied, weighing 4.5 grams, had a metabolic rate more than twice as high, weight for weight, as a

field-mouse more than twice its size.

It has long been known that the larger a warm-blooded animal the more slowly its body-fires burn. Shrews, which look like midget mice but are not rodents at all, are fiercely carnivorous, devouring insects, mice and each other. They have to eat practically all the time; if they are kept without food for even a few hours they die.

The body weight at which food intake would just balance its utilization in the animal's life-processes works out, on the curves projected by Mr. Pearson, as near 2.5 grams.

Mr. Pearson offers his results in *Science* (July 9).

Science News Letter, July 24, 1948

CHEMISTRY

# Products from Plastic

➤ SUITCASES and trunks, cabinets and trays are molded from one of science's newest plastic products—cellulose acetate laminate.

Several layers of resin-treated fabric are sandwiched between sheets of clear plastic to form a compact layer. As the weave and printed pattern of the fabric show through the transparent layers, a wide variety of designs is possible.

The fabric gives the laminated product its great strength and interesting appearance; the plastic protects it from being soiled or stained. Corners can be molded so they are well-rounded and water-proof.

Ten thousand kits containing samples of this laminate and other cellulose plastics are being distributed throughout the world to people interested in science. The kits were prepared by SCIENCE SERVICE with the cooperation of some of the coun-

try's outstanding producers of cellulose plastics.

Cellulose propionate, one of the newest cellulosic plastics, is used for optical frames and fountain pens. Pellets of cellulose propionate not only show the material ready to be molded, but also enable those receiving the kit to do a bit of molding on their own.

The pellets are merely heated on the stove and poured into a simple mold. Consisting of two pieces that fit snugly together, such a mold can easily be carved from bits of wood. The crude plastic article an amateur produces on his first try gives a rough idea of the molding process, but is a far cry from professionally formed articles such as the whistle included in the kit.

Short cotton fibers left on the seed after the first ginning are one of the chief sources of cellulose, basic material for cellulose

plastics. This blotter-like material is included in the kit along with cellulose acetate flake, pellets of cellulose acetate butyrate and a molded chip of ethyl cellulose.

The Cellulose Plastics Unit of THINGS of science, containing these specimens and museum labels for their display, as well as suggesting a number of experiments, may be secured by sending 50c to Science Service, 1719 N St., N. W., Washington 6, D. C., and asking for unit No. 93.

Science News Letter, July 24, 1948

METEOROLOGY

# Automatic Electric Device Makes Own Wind Record

➤ THE WIND will make its own records on a portable electric device which can be left unattended in isolated places a month at a time, the Army Signal Corps revealed. In size it is slightly larger than an infantryman's pack.

The instrument makes a continuous record of wind directions and wind velocity on a moving roll of paper, which is long enough to make an 800-hour recording. It uses no ink. Records are made by electric spark holes through the paper.

This electric weatherman was developed for the Signal Corps by the General Electric Company, Schenectady, N. Y. Moving arms, connected electrically to a conventional anemometer, a wind velocity-measuring instrument, and to a weather vane, mark specially-sensitized paper by sending sparks through it. The instrument can register wind velocities up to 150 miles per hour and direction within 1.5 degrees.

Science News Letter, July 24, 1948

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