

BIOCHEMISTRY

New Growth Vitamin Discovered in Liver

► A NEW vitamin, or "growth factor" in liver, has been discovered by Dr. John Yudkin of King's College of Household and Social Science, the University of London, England.

Apparently normal, healthy children fed a beef liver powder specially prepared by Dr. Yudkin gained in 13 weeks about one-fourth inch in height and 10 ounces more in weight, on the average, than a control group of healthy two-year-olds. The gains, in this short period of time, figure out to 20% and 40%, roughly, more than those of the normal children without the liver preparation.

The boys and girls, from four day nurseries in London, were of average height and their weight was up to standard at the start of the test. They got the liver preparation in orange-flavored chocolate bars, one bar every day during the five days each week they were at the nursery. Identical bars, but without the liver, were given to about an equal number of children as a control on the experiment.

Dr. Yudkin does not believe the factor in the liver responsible for the significant gains in height and weight is vitamin B-12. He is not sure whether it is in all preparations of liver. He is trying now, he states in his report to the *BRITISH MEDICAL JOURNAL* (June 28), to determine the distribution and nature of this apparently new growth factor.

Science News Letter, July 12, 1952

TECHNOLOGY

Bees Give Clue To Building Material

► TAKING A tip from bees, engineers have developed a new lightweight construction material that may help house-builders cut costs.

The material, called Cyclecore, has a honeycomb-like impregnated paper filling sandwiched between sheets of metal, wood, plastic or asbestos cement. The filler and "skins" are bonded by a tough adhesive.

Developed as paneling by the Chrysler Corporation, the material has not only exceptional strength, but also good insulating qualities. A four-inch-thick panel insulates as well as a two-foot-thick masonry wall.

Because of its light weight, 20% to 25% savings could be made in structural steel framing, and 15% to 20% savings could be obtained in roof beams and bar joists, the engineers report. Furthermore, as much as 30% could be saved in reinforcing steel used in foundations, and 15% less steel would be required in lintels and anchors of buildings using the material.

Primarily the panels are for interior building partitions, but field tests have pointed to numerous exterior uses for them.

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ARMY'S NEWEST TANK—The Patton 48, the most modern medium tank, has a one-piece, cast-armor hull and improved firepower to make it a formidable fighting machine.

TECHNOLOGY

Medium Tank Foils Shells

► SLINKY AND low-down, with an armor hide that shells glance off, the Army's newest medium tank, the Patton 48, has now been unveiled.

It can cross water four feet wide, climb a three-foot wall, negotiate an eight-foot trench, rush up a steep grade and zig-zag bafflingly.

This war machine has been coming off the production line at the Chrysler Delaware Tank Plant for the last two and a half months.

For the first time a one-piece cast hull has been achieved and this is elliptical in shape to make it difficult for an enemy shell to bite into it. The turret is also in one piece, with sloping, elliptical sides to give greater protection and greater vision to the crew.

The main gun is a new high velocity 90-millimeter, with a quick change tube. Mounted coaxially with it, are .50 and .30 caliber machine guns. Its engine is a V-12 air-cooled job made in New Orleans, developing 810 horsepower.

There is a crew of four, one less than for previous Patton tank models. Its fighting compartment is described as more spacious than any previous model.

In many respects the Patton 48 is almost identical with the M-47, its predecessor and an interim model that had many experimental features. Both have the same motor and the same optical range finders for laying the gun quickly and accurately on targets, although the Patton 48's mechanism is somewhat simpler.

The Patton 48 also is equipped with a cross-drive transmission. This transmission, coupled with power steering, practically nullifies driver fatigue. World War II tank

drivers, after a few hours, became so fatigued that combat efficiency was lowered.

The tank is named for the late Gen. George S. Patton, World War II commander and a leading exponent of armor.

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ZOOLOGY

Whale Hair Wanted To Complete Collection

► IF ANYONE has any whale hairs, Dr. Leon A. Hausman would like to have them to add to his collection which contains over 2,000 specimens of hair, but none from whales. Even the 100-ton variety of whale has only a few which are located around the animal's mouth.

Dr. Hausman, professor of zoology at New Jersey College for Women, Rutgers University, told Watson Davis, director of *SCIENCE SERVICE*, on his "Adventures in Science" program over the CBS Radio Network that his interest in hair began when he was assigned as his subject for his doctoral thesis the comparison of his own hair with that of a 5,000-year-old Egyptian mummy. Since that time, Dr. Hausman has lent his knowledge on hair to the law courts, government, museums and industry.

Hair varies from animal to animal and between human types. In a law court it may be as important as fingerprints in arriving at a verdict. With the aid of his microscope, Dr. Hausman can tell if hair has been bleached or dyed and how many times, and he can tell if your fur coat is a real mink or a skilful imitation.

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