

NUTRITION

B-12 Growth Value Limited

Vitamin B-12 does not counteract the effects of a continued poor diet, studies made with children from families living on limited amounts of food show.

► VITAMIN B-12, newest of the vitamins needed by humans, makes mice, rats, chicks, hogs and some kinds of bacteria grow faster. But it does not make undernourished children eating a poor diet grow.

This failure of the vitamin to overcome the effects of a continued poor diet was reported by Dr. Tom Spies of Hillman Hospital, Birmingham, Ala., and Northwestern University, Chicago, at the International Vitamin Conference held in Havana, Cuba.

The report was based on tests made by Dr. Spies and associates, Dr. Samuel Dreizen, dentist, Miss Catherine Currie and Miss Clara C. Buehl of the Nutrition Clinic, Hillman Hospital. The vitamin was given to nine children over a period of 16 months. The children were chronically undernourished. This was reflected in a poor growth rate. And they came from poor families living on limited amounts of food.

Their basic diet consisted of corn bread, biscuits, dried beans, turnip, mustard or collard greens, fat pork, corn or cane sugar syrup and home grown vegetables in season. It was deficient in all of the essen-

tial nourishing items for which standards have been accepted.

During the trial of the vitamin, no effort was made by the scientists to change the diet of these children. One child was able to have more vegetables after the family raised their own garden. Two others got fresh milk and butter after the family bought a milk cow.

Some of the children from time to time said their appetite improved and most showed a slight increase in red blood cells and hemoglobin in their blood. But only one child out of the nine showed a slight increase in his rate of growth and this was one of the children whose family had bought a cow during the period of the vitamin trial.

These trials of the vitamin do not, of course, mean that there is any failure of the vitamin's ability to remedy pernicious anemia and certain other anemias. Nor do they mean that the vitamin will not help children grow if they are getting a good diet, as was the case in earlier reports of its growth-stimulating effect in children.

Science News Letter, February 2, 1952

TECHNOLOGY

Cheap Gasoline from Coal

► SYNTHETIC GASOLINE from coal can be made economically, in spite of the high cost in present experimental work, provided valuable chemicals obtainable in the manufacturing process are recovered and made marketable.

This is the opinion of Dr. G. F. D'Alelio of Koppers Company, Inc., Pittsburgh, who has revealed that his company is building a pilot plant at its new Verona, Pa., Research Center to make gasoline from coal by the hydrogenation process. Gasoline of aviation rating can be made by this system, he stated, but a long list of aromatic chemicals such as benzene, phenols and cresols may be obtained in the process.

"While plants to make gasoline from coal are costly to build and gasoline could not presently be produced in them at prices in competition with petroleum gasoline, research is finding ways to produce an increasing number of valuable chemicals in such processes," he said. "These processes can be regulated to produce more chemicals and less gasoline. It is here that upgrading of products may result in a

'coal-to-gasoline' plant becoming economically feasible much sooner than many think."

These chemicals are the building blocks for thousands of other materials, he added, and Koppers believes that when such plants are built, new chemical fields will be opened, just as perfection of the chemical-recovery coke oven nearly 50 years ago created chemical, tar processing, wood preserving and other industries which are strong and still growing today.

Gasification and hydrogenation are the two best-known methods for making gasoline from coal. From direct gasification, the process in use in the demonstration plant of the U. S. Bureau of Mines in Missouri, a synthetic gas containing primarily hydrogen and carbon monoxide is produced. This, in turn, can be the base for synthetic gasoline and many aliphatic chemicals such as alcohols, aldehydes, ketones and the fatty acids which also have wide use in industry.

Science News Letter, February 2, 1952

Less than a third of India's farmers own the land they till.

SCIENCE QUIZ ANSWERS

Now that you have taken the science aptitude test, you are ready to check your answers.

Correct answers to Part A are: 3, 1; 5, 2; 18, 4; 24, 4; 26, 2; 27, 3; 29, 3; 35, 1.

For Part B, Section A: 51, 4; 52, 3; Section B: 53, 1; 54, 2. Section H: 76, 2; 77, 3.

For Part C: 103, 2; 104, 4; 109, nucleus, electrons; 111-1, C; 111-2, P; 111-3, P; 111-4, C; 111-5, C; 111-6, F; 111-7, F; 111-8, P; 111-9, P; 111-10, P.

Of the 28 possible correct answers, if you achieved 20 or higher, you can consider that pretty good. If you got 10 or less, that was not so good. Your talents probably lie in other fields. Those who could do as well as the equivalent of 20 on the entire test would have been in the running for consideration for honors in the National Science Talent Search.

Science News Letter, February 2, 1952

INVENTION

Indoor Television Antenna Concealed in Floor Lamp

► INDOOR TELEVISION antenna is concealed within a floor or table lamp and its shade in an invention awarded patent 2,583,066, the recipient being Theophile A. Stiffel of Chicago. A plate of insulating material surrounds the lamp standard just under the electric bulb. Antenna elements projecting upward from the plate support the shade. Lamp may be turned in any direction for best reception and it may remain lighted while the television is in use to supply soft light suitable for television viewing.

Science News Letter, February 2, 1952

Bacteria can cause stains on iron and steel surfaces.

YOUR SKIN AND ITS CARE

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