

## BIOCHEMISTRY

# Proteins Make Vitamins

Experiments with rats revealed that proteins are increased when they are set free from vitamin-building. Discovery may aid in disease-fighting.

► **THE BODY** may be able to manufacture some vitamins from proteins if it does not get enough vitamins from food, the International Society of Hematology was told in Buffalo.

Discovery that some vitamins can be made from proteins was made in experiments with rats, but the findings may apply to humans, Dr. Floyd S. Daft of the National Institutes of Health, Bethesda, Md., declared.

Dr. Daft found that if there are not enough vitamins and amino acids, chemical building blocks of proteins, in the diet of rats, they develop blood disorders. The nutritional anemia may be caused by a shortage of protein material to manufacture the missing vitamins, Dr. Daft suggested.

Rat experiments indicated that a diet slightly deficient in tryptophane, an amino acid, produced a shortage of the vitamin, folic acid. When the rats were treated with either of two vitamins, niacin or folic acid, they recovered from the anemia.

When the vitamin was given the rats, Dr. Daft said, it seemed to increase the supply of protein, because the protein was no longer used in vitamin-building.

Rats put on a diet in which casein, the principal protein in milk, was the only protein, showed growth failure and frequently developed blood disorders. Adding three protein-building amino acids to the diet prevented this condition from developing.

But after the blood condition had developed, one or more other substances such as amino acids, folic acid or purified liver extract were generally needed.

Thus, Dr. Daft concluded, vitamins can help correct a protein deficiency, while proteins will aid in building up the supply of vitamins.

If a diet is low in protein, there will develop shortages of both vitamins and nucleic acids, the basic substance in the nucleus of a cell.

The findings with rats may apply to humans, Dr. Daft said, because both rats and humans respond to the same treatments with vitamins for certain types of anemia. Folic acid and the new vitamin, B-12, correct these anemias in both, it was found.

How sulfa drugs work in the body may be explained further by discovery of this interchange between vitamins and proteins, the scientist indicated. Dr. Daft previously found that sulfa drugs cause anemia and destruction of white blood cells in rats. His new experiments have led him to believe

that sulfa drugs may create an amino acid shortage in the body.

Science News Letter, September 4, 1948

## New Hereditary Disease

► **A NEW** hereditary bleeding disease which strikes infants was reported to the society by two French doctors, Jean Bernard and J. P. Soulier, both of Paris.

Hemorrhages began in 15-day-old babies. In some cases two or three children in the same family were affected. Blood vessels under the skin and the membranes lining the body organs hemorrhaged, and one of the infant victims vomited blood.

Science News Letter, September 4, 1948

## PSYCHOLOGY

## Fourth of Veterans Found Mistaken in Job Choice

► **ONE** of every four veterans who came to a vocational guidance center was found to have mistaken ideas about what sort of job he should try to get, a survey has revealed.

Some of them aimed too high for their intelligence or abilities. Some had school

records which did not justify the choice they made. Others were handicapped by personality maladjustments, physical disabilities or lack of money to finance their training.

A study of the job choices of 224 veterans is described by Joseph Stubbins of Columbia University in the journal, OCCUPATIONS (April).

Six of every ten veterans made appropriate choices, while approximately one in every ten was unable to suggest a suitable job for himself.

Only 3.6% of the group aimed too low in their vocational choices.

The more educated veterans did a better job of selecting an occupation, it was discovered. Pensioned veterans made reliable choices. Those who came for guidance voluntarily needed more help, because they tended to make less realistic choices.

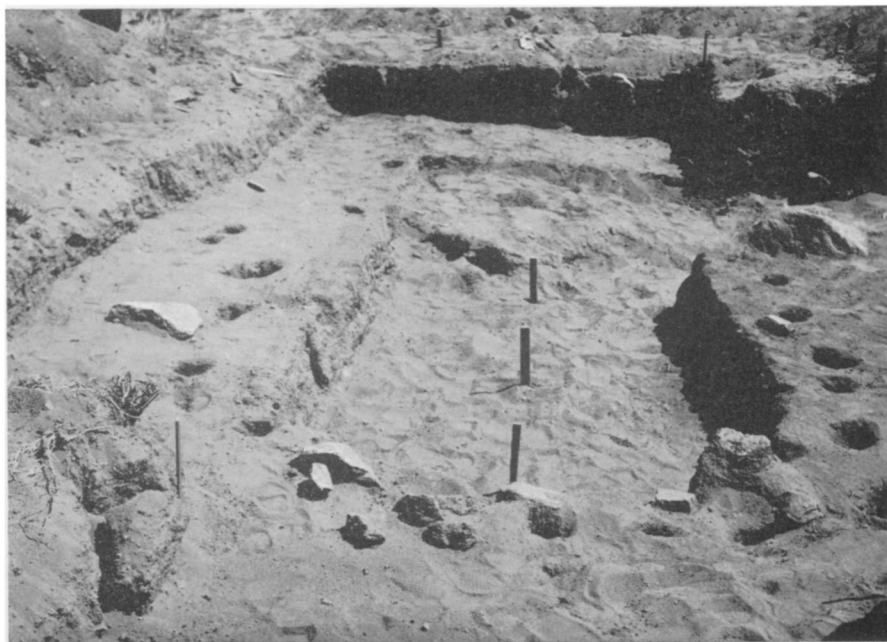
Science News Letter, September 4, 1948

## ARCHAEOLOGY

## Earliest American House May Have Been Found

► **AMERICA'S OLDEST HOUSE**, with a possible age ranging from 10,000 down to 3,000 years, may be represented by an enclosing rectangle of post-holes discovered near Little Lake in Inyo County, Calif., by an expedition from the Southwest Museum in Los Angeles. Actual find was made by a volunteer amateur archaeologist, B. E. McGown of San Diego.

There are 23 holes, averaging four inches in diameter, outlining what seems to have been a crude hut about eight by 12 feet in



**AMERICA'S OLDEST HOUSE**—These post-holes discovered near Little Lake in Inyo County, Calif., may date anywhere from 10,000 years to 3,000 years ago.

size. The posts stood upright, so it is assumed that they supported a roof. No hearth has been found in the enclosure, but near the southwest corner is a depression containing many charred and split bones of food animals. The floor was of packed earth.

M. R. Harrington, curator of the Southwest Museum, who was in charge of the expedition, states that the dwelling may date from shortly after the close of the Ice Age. Stone spear or dart heads of the type recently named Pinto Basin culture were found in and near the old house site, so there is no doubt that Pinto Basin man built and lived in the hut.

Date of the Pinto Basin culture, first discovered near Twentynine Palms, Calif., by Mr. and Mrs. W. H. Campbell, has not yet been established. Estimates range from

as recent as 1,000 B. C. to as ancient as 8,000 B. C.

Earliest American habitations, aside from caves, are pit dwellings dating from the earlier centuries of the Christian era, when the Basketmaker culture flourished in the Southwest.

Science News Letter, September 4, 1948

#### GENERAL SCIENCE

### SNL on News Stands Of New York City

➤ WHEN YOU ARE in New York City you may now buy the SCIENCE NEWS LETTER each week on many of the news stands of the metropolitan area. Look for it and tell your New York friends about it.

Science News Letter, September 4, 1948

## Letters To The Editor

### Biggest Ever

Your item (SNL, Aug. 21) about big hailstones reminds me of some in Cincinnati, Ohio, about 1900. Major Bixby (afterwards Chief of Engineers, U. S. Army) stared at them in astonishment, called a cab, then took off his coat and bundled up the biggest ones in it. These he rushed to an engineer friend at the cold-storage plant to be preserved as proof of his veracity. But his friend was a practical joker and found a way to make them grow to immense size (a little bigger at each call). So they, probably, were the biggest ever.—Gilbert S. Walker, Pittsburgh.

### Reader's Page

I read your magazine and I think it is wonderful! It should be in all schools to promote science and American ingenu-

ity. Why not devote a page in your SCIENCE NEWS LETTER for the readers to write and discuss their amateurish ideas and inventions? Thanks.—J. S. Badon, Breaux Bridge, La. *Here's the page right here.*

### Laws of Matter Up-to-Date

This compilation (SNL, June 19) is one of the clearest condensations that I have ever read. I am filing it for future reference.—M. L. Ballou, Arlington, Va.

### Televised Ocean Bottom?

It would be a good idea if the Woods Hole Oceanographic Institution would use television on its vessel "Atlantis" to see what is at the bottom of the sea (SNL, Aug. 14)—R. Youngblood, New York City.

## Question Box

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#### INVENTION

### Salt in Auto Tire Helps Prevent Skidding on Ice

➤ SALT in an automobile tire is the newest aid suggested for driving on icy streets.

The salt is not just added to the tire. It is scattered within a new material developed for recapping worn tires. The material, developed by the United States Rubber Company, is called "Wintrac."

This new recapping material consists of a high quality tread stock into which thousands of pieces of rock salt have been mixed. As the tread wears down, the pieces of salt are released to form surface pores which grip the road.

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