

## MEDICINE

# Synthetic Vitamin Produces Striking Unexpected Cures

## Pyorrhea and Bleeding Disorders Respond Remarkably To Ascorbic Acid Which Is Concentrated Vitamin C

**S**YNTHETIC vitamin C, called ascorbic acid, in its first actual use on medical patients is producing very striking and unexpected disease conquests, the British Association for the Advancement of Science was informed by Prof. A. Szent-Györgyi, the Hungarian chemist who played a major role in the artificial manufacture of this important vitamin.

The mouth disorder known as pyorrhea, a certain kind of hemophilia which is a disease of bleeding, certain forms of hemorrhagic nephritis, and several other diseases against which medicine was helpless are seemingly being cured by ascorbic acid. Ascorbic acid is not a cure for hereditary hemophilia.

"This is the more striking since these pathological conditions have not been thought to be connected with lack of vitamin," Prof. Szent-Györgyi explained. "These curative effects suggest that humanity is suffering much more gravely from a lack of vitamin C than has hitherto been supposed."

Disfiguring colorations of the skin brought on by illness are also made to disappear by ascorbic acid. Patients with Addison's disease, who have a yellow color, can be bleached out again by the use of this substance.

### Fast-Moving Drama

The complete exploration of the mysterious vitamin C, found most abundantly in citrus fruit, was one of the most fast-moving dramas in current science. In the short space of two years vitamin C has been identified, its chemical structure determined and it has been made synthetically in the laboratory. The pure, highly concentrated vitamin C acid has been made available for industry and medicine.

Hungary, represented by Prof. Szent-Györgyi, who is director of Szeged University's Institute of Medical Chemistry, Switzerland, England and other countries have worked together through their scientists in this great chemical conquest.

"It is pleasant to note that this unparalleled advance is due entirely to the closest and friendliest international collaboration," Prof. Szent-Györgyi said as he spoke before British scientists.

It is predicted that the role of ascorbic acid in life may be even more important than is now realized, for there seems to be no cell life in higher organisms without ascorbic acid.

### Salvation of Teeth

Vitamin D, the sunshine vitamin present in liver oil and green vegetables, was called the salvation of teeth by Dr. May Mellanby, British Medical Research Council investigator. It helps to prevent and arrest dental decay or caries even in imperfect teeth. Beautiful teeth are found in Eskimos who get their vitamin D from blubber and in natives of the tropics who get theirs through exposure of naked bodies to the ultraviolet rays of the sun.

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## ENTOMOLOGY

## Long-Lost Caterpillar Of Rare Butterfly Re-Found

**I**T WAS only a green caterpillar about an inch long.

But it had been lost since 1790, about the time when George Washington refused to run for a third term; so naturalists have felt a bit piqued about the matter. Such elusiveness on the part of any insect species is a challenge—the more so since the adult butterflies into which these caterpillars turn have been seen occasionally in damp, dusky woodlands in the South. It is known as the gold-banded skipper.

Now Austin H. Clark, Smithsonian Institution zoologist, has managed to obtain a collection of these caterpillars. He did it by reversing the process by which the original discoverer of the species, one John Abbot, a Georgia school-teacher, in 1790 got his first gold-banded skipper butterfly. John Abbot captured one caterpillar, and

kept it until it had spun its cocoon, to emerge later as the full-winged butterfly. Austin Clark obtained 160 eggs, and kept them until a part of the lot produced the long-lost caterpillars.

Mr. Clark's caterpillars fit the description of the old-time Georgia schoolteacher's one specimen: apple-green body, rose-pink neck, claret-brown head with two large staring yellow eye-spots. It has a curious habit of cutting a wedge-shaped flap out of the edge of a leaf and folding it into a little peaked tent sewn together with silk. In this it hides during the day, clinging to the under side of the leaf; at night it emerges to feed.

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## GEODESY

## Is America Getting A Broader Waistline?

**I**S AMERICA getting wider across the middle?

Or has some slight error crept into either the measuring methods of the astronomers or their arithmetic?

Whatever may be the case, the distance between Washington, D. C., and San Diego, Calif., showed an apparent increase of about forty feet in 1933 as compared with measurements made seven years earlier. This discrepancy was reported at the meeting of the American Astronomical Society at Connecticut College, New London, by C. B. Watts of the U. S. Naval Observatory.

Mr. Watts added, however, that he inclined to the second alternative; it appears easier for astronomers to make an error of forty feet in measuring a line 3,000 miles long than for the United States to grow forty feet "fatter" in seven years.

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**GOLD-BANDED SKIPPER**

*The caterpillar of this butterfly has until now eluded searching scientists although the butterfly itself has been repeatedly seen.*