

ECOLOGY
NATURE RAMBLINGS
by Frank Thone



"It's the Water"

WHEN you go into a strange part of the country for a more or less prolonged stay, you may find yourself uneasy and out of sorts for a while. People explain this maladjustment vaguely, because nobody understands it at all well as yet. If you do not sleep well, they say it's the change of air. If your digestion doesn't work quite right, they blame it on the change of water.

Presently you become acclimated and forget about it. If you don't, you pack up and leave, lest you should get seriously ill and maybe die.

Plants as well as people have to meet this complex of little-understood environmental conditions. Some plants, like some people, are very tolerant and easily adjustable, so that you will find them pretty much everywhere, either as native vegetation, introduced weeds or man-transported crops.

But most forms of plant life have limits to their ability to adjust themselves, and if they stray into surroundings where their requirements are not reasonably well met they just don't grow. They are unluckier than human beings or animals in that they cannot pack up and leave if they don't like a place; all they can do is protest by perishing. Their seeds either fail to germinate, or if they do they send up feeble and pindling sprouts that are soon pushed under in the scramble for

sunlight by more vigorous neighbors.

To take a concrete example, it is because of an apparent need for an acid soil that plants of the heath family, which includes blueberries, huckleberries, mountain laurel, rhododendron and many other fine small fruits and ornamental shrubs, will not grow in the Corn Belt states. The soil there is rich in limestone, and its water is neutral or slightly alkaline. Without their daily sip of acid the heath plants cannot survive. So Illinois and Iowa have to get along without rhododendrons, and must import the "makings" for blueberry pies.

Science News Letter, April 4, 1936

PHYSIOLOGY

Vitamin B May Play Part In Body's Fat Production

A NEW role for vitamin B, helping the body gain weight by building up fat, is suggested by experiments reported by Drs. Dorothy V. Whipple and Charles F. Church, of the University of Pennsylvania School of Medicine, at the meeting of the American Society of Biological Chemists.

Animals given diets that contained no fat but plenty of vitamin B were able to gain more weight than their mates on the same fat-free diet but without the vitamin. Comparing the average body composition of the animals, the Philadelphia investigators found that fat accounted for half the gain in weight made by the animals on the vitamin diet. Water accounted for the other half of the weight gain.

The figures, they reported, suggest the possibility that vitamin B plays a role in the building up of fat in the animal body.

Vitamin B is found in moderate amounts in most natural foods, but its chief sources are wholemeal cereals, yeast, peas, beans, egg yolk, nuts, liver, kidney and heart. Lack of this vitamin causes beri-beri, a disease mostly found in the Orient, but which can occur anywhere if this vital food factor is omitted from the diet.

Consequently, fat persons cannot hope to lose weight by omitting vitamin B from their diet, even if the investigations reported today are confirmed and the vitamin is found actually to be important in weight-building. But thin persons wanting to gain weight may in the future be advised to add liberal amounts of the vitamin to their diet.

Science News Letter, April 4, 1936

CHEMISTRY
"OUT OF THE TEST TUBE"

by **Dr. Harry N. Holmes**

Dr. Holmes, professor of Chemistry at Oberlin College, is internationally known as "the teacher of teachers." He is one of the world's most distinguished scientists, a past Division Chairman of the American Chemical Society, and author of 10 standard works on chemistry.

"The best popular discussion of chemistry since the publication of Slosson's 'Creative Chemistry' some fifteen years ago."—*David Dietz, Science Editor, Scripps-Howard Newspapers.*



His researches have yielded original and important contributions to man's present-day knowledge of Chemistry. "Out of the Test Tube" compresses the complete fascinating story of chemistry into one breathtaking volume in non-technical language PROFUSELY ILLUSTRATED—83 unique pictures. Using plain words, Dr. Holmes reveals HOW chemistry is changing EVERY phase of your daily life—your health, your job, your living conditions, your future prospects!

PARTIAL CONTENTS

- Money from Smoke? • "Black Magic" Harnessed • High Explosives • Chaining the Sun • Chemistry of Plastics • Soil Chemistry and The Farm • Fertilizers — Chemical Keys to Mother Earth • Minerals—the Key to World Power • Wartime Chemistry • Photo Synthesis • Bacteria—Helpful or Destructive • Hydrogen's Amazing Story • The Elixir of Life • Helium — Conqueror of Gravity • Food from the Air • Sulphur—Elusive Imp of Chemistry • Fuels—Present & Future—Coal, Oil, Alcohol, Solar Energy • Atomic Energy, Hydrolics, Natural Gas • How Sweet is Sugar? • Research and the "Talkies" • The Automobile's Debt to the Chemical Laboratory • The Saga of Steel • Formulas—and How to Read Them • The Terrible Termites • The Chemist—Key Man of Industry • The Chemist's Language • Cellophane • Chemistry, Alchemy, and "Gold" from Lead • Housing of the Future • Metals that Float • The Future of Chemistry • Freezing and What it Does • The Elements Analyzed • Silks and Cellulose • Insects—Man's Allies or Enemies • Fats—Their Place in Industry • Truth about Vitamin Foods • Yeasts • Chemistry and Medicine • Violet Rays, Infra-Red Rays, Cosmic Rays, X-Rays • Meteors • Air-Conditioning • What Transportation Owes to the Chemist • The Miracle of Glass • Synthetic Rubber • Textile Chemistry • Safety Glass • The Chemistry of Nutrition • "Farm Factories" • Telling the Earth's Age • Glandular Activity • Hormones • Aluminum's Fight for Supremacy • Chemistry and Aviation • Chemistry of Photography

And many other vitally absorbing subjects

FREE OFFER

EMERSON BOOKS, Inc., Dept. 389-S
333 Sixth Ave., New York

Send me a copy of OUT OF THE TEST TUBE for free examination. I will pay \$3.00 plus a few cents delivery charge, when the book arrives. I understand that if it is not entirely satisfactory I may return it within 5 days and purchase price will be refunded.

Name.....
Address.....

CHECK HERE if you wish to enclose only \$3.00 with coupon, thus saving delivery charges. (Same money-back guarantee.)

23 LANGUAGES

||| SPEAK ANY MODERN LANGUAGE IN 3 MONTHS BY LINGUAPHONE UNIQUE METHOD BRINGS VOICES OF NATIVE MASTERS INTO YOUR OWN HOME... SEND FOR FREE BOOK |||
LINGUAPHONE INSTITUTE
35 Rockefeller Center • New York

