

PUBLIC HEALTH

Cause of Amebic Dysentery Plagues All the Americas

AMEBAE, tiny parasites that cause amebic dysentery, menace the health of the Americas from Saskatchewan, in Central West Canada, to the Straits of Magellan, it appears from evidence presented by Prof. Ernest Carroll Faust, of Tulane University of Louisiana School of Medicine, to the American Society of Tropical Medicine meeting in St. Louis.

In the United States as many as two out of every 10 persons may have amebae in their bodies, Prof. Faust estimates. This figure is twice as high as previous estimates which put the amount of amebic infection in the United States at 10%. Amebic infection is much more intense in the American tropics than in the temperate zones, but it is not, as once was believed, exclusively a tropical health menace.

Not every person who has amebae in his body has symptoms of acute or chronic amebic dysentery. The symptomless carriers, however, are in danger of becoming acutely or chronically ill, and they constitute a source of infection for others in their communities.

"Today the important problem in amebiasis is the specific diagnosis of the infection," Prof. Faust declared, emphasizing that accurate diagnosis is essential both for treatment of individual patients and for eventual development of methods to control or prevent the infection.

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RESOURCES

Bamboo Plant Provides Many Essential Materials

WHAT is the most universally used plant that grows? Is it, as many have stoutly maintained, the coconut palm? Or sorghum, maize, sugar cane, or peanut?

No, not one of these, according to Dr. William M. Porterfield, Jr., of the U. S. Soil Conservation Service. It is bamboo.

There is not a category of human needs which cannot be supplied by some form or product of bamboo, declares Dr. Porterfield. Food, weapons, shelter, baskets and containers, bridges, conduction pipes, paper, cable, ornaments, and many very specialized articles are made from it.

The Forest Research Institute at Dehra Dun in India believes that the final solution of the world's recurring shortage of raw material for paper will only

be found in the forest and waste lands of the tropical and subtropical belts, with bamboo the most important product.

Bamboo has figured largely in the past history of Asiatic and many tropical peoples and has been the subject of artistic rendering in all the arts. The famous Bamboo Books, containing more than 100,000 seal characters, comprising fifteen different works dealing with the history of China for 2,200 years, were written on tablets made of bamboo which were strung together like a fan.

To bring the uses of bamboo up to date, a bamboo basket has been designed and used by the Chinese to protect their most important buildings from Japanese air raiders. According to W. R. Peck, Counsellor of the United States Embassy, Chungking, China, the Chinese construct a three-story bamboo framework atop buildings and load all three floors with cut bamboo. When a bomb hits it is harmlessly detonated before it reaches the building itself.

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PUBLIC HEALTH

Poppy Seed Roll Trimming Likely Soon to Vanish

POPPY seed trimmings for rolls are likely to vanish from American dinner tables. The new California law making it illegal to grow any poppy that can yield opium is expected to have a nation-wide follow-up. The Treasury's Bureau of Narcotics has already recommended passage of federal legislation.

The United States used to import poppy seed as roll trimmings by thousands of tons, and at such a low price as eight cents a pound. When higher duty boosted the price, American growers began to take interest.

Discouraging American poppy seed production, narcotic officials explain that while there might seem no harm in growing the seed for bakeries, there is grave danger that racketeers would get hold of the poppy plants for opium.

Plowing under, and destroying with supervision, many acres of peony and carnation poppies planted for seed, California growers this season conformed to the new state law, and at the same time were allowed to salvage a seed harvest if they could. Any carry-over stocks of seed have been "cooked" and sold to bakers.

Some poppy seed is being produced in other states. When federal law stops that — well, said one narcotic official cheerfully, after all there are plenty of other roll trimmings.

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IN SCIENCE

ANTHROPOLOGY

Geologist Predicts Long Life For Race

IGNORING war's turmoil, Harvard University's professor of geology, Dr. Kirtley F. Mather, launches the cheerful prediction that the human species probably has a 500,000-year future and that the earth's resources are bountiful enough to keep mankind going for millions of years.

No need to worry that man's specialization in brains will be his downfall, as the dinosaurs' specialized bony armor plate is supposed to have helped along their extinction, Dr. Mather declares, giving his views on "The Future of Man" in the Annual Report of the Smithsonian Institution. Man needs to act with more intelligence, and to increase his ability to see in advance the remote consequences of contemplated action, the geologist concludes.

If *Homo sapiens* is an average species of the earth's creatures in longevity, the human race that now rules the earth is still young, with a mere 50,000 years to its credit. Our golden age, if any, is in the future, Dr. Mather foresees. After a half million years more of existence, our type of mankind may either exit via a blind alley or develop into a descendant species better adjusted to environment than we are.

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NUTRITION

Russians Get Vitamin C From Walnut Shells

WALNUTS may be one source of vitamin C available to Soviet Russia, as a result of experiments which were reported successful recently.

The Institute of Biochemistry at Moscow announced that the soft outer shell of unripe walnuts contains a large supply of this vitamin, which can be extracted and robbed of its bitterness and reduced to a vitamin concentrate.

Since walnuts grow abundantly in Soviet areas, the new process, described as simple, was expected to yield large quantities of vitamin C.

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CE FIELDS

ETHNOLOGY

Cow Creek Seminole Groom Lives With Wife's Folks

DECIDING whose relations to live with is no arguing problem for newly-weds in Cow Creek Seminole circles. A bridegroom invariably moves over to his wife's folks and builds her a home in the midst of her family camp, according to Dr. Alexander Spoehr, ethnologist of the Field Museum of Natural History, who has been studying these Florida Indians.

To obtain first-hand facts about the lives of the Cow Creek tribe, Dr. Spoehr spent several months on the Brighton Reservation, living Indian style and fraternizing with members of the five principal clans of the tribe—known as Panther, Bird, Deer, Snake, and Tallahassee clans.

Social structure of this tribe builds families and clans around mothers, sisters, and wives rather than around breadwinning males, Dr. Spoehr reports in "Camp, Clan and Kin among the Cow Creek Seminole of Florida" (*Reviewed, SNL, this issue*). Unmarried men live in the camp of their sisters or mothers.

A married couple that fails to "get along" is simply divorced if the husband packs his few possessions and moves out. The children stay with mother, and there is no alimony.

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OCEANOGRAPHY

California Gulf Has Giant Internal Waves

ALTHOUGH surface waves that crash on beaches and lift ships high on the open sea are majestic and spectacular, they are mere froth compared to underwater waves in the Gulf of California. This is the conclusion of W. H. Munk after scientific investigation and calculations.

Dr. Harald U. Sverdrup of the University of California's Scripps Institution of Oceanography suspected the rolling of giant under-sea waves after a survey completed in 1939. In a cruise of the "E. W. Scripps," floating laboratory of the In-

stitution, calculations were made of density, temperature, and salinity from data gathered at fifty-three oceanographic stations on the California Gulf. Dr. Sverdrup suggested his theory to Mr. Munk, who is connected with the California Institute of Technology, and turned over the data for study.

Mr. Munk found Dr. Sverdrup's theories substantially correct, and estimates that the internal waves are about as large as one-tenth the depth of the Gulf itself, which is over 650 feet. So massive are these sea-bottom swells, and so slowly do they move that the lapse of time between the passage of one crest to the arrival of the next over a given point takes from six to seven and one-half days.

"What causes this phenomenon is not yet clear," said Mr. Munk. "It may be due to the effect of the tides, but that theory will bear further investigation."

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AGRICULTURE

Special Kind of Silage Makes Chickens Thrive

SILAGE has been fed to cows for more years than most of us remember, but it is only now that chickens begin to get the benefit of this way of feeding.

It doesn't require a huge first cost in a silo. A 50-gallon barrel is all that is needed. At the University of Tennessee, experiments with this feed have yielded good results, both in increased egg production and rate of growth.

The silage is made of chopped-up legume hay, such as clover, and cowpeas, cut in the fresh bloom stage. Immediately after being cut it is chopped into half-inch lengths. With each 100 pounds of silage is added enough sour skim milk or powdered buttermilk dissolved in water, to make the mixture moist. In some cases black-strap molasses dissolved in water is used. Another way is to mix with each 100 pounds of chopped-up legume hay 8 or 10 pounds of crushed carrots, or 8 or 10 pounds of sweet potatoes, or 20 or 30 pounds of corn in dough stage, or any one of several fruits, vegetables or field crops.

In the feeding tests one flock of young stock fed silage and mash gained 214% in ten weeks, compared with 166% for a check flock given mash alone. Another flock fed skim milk and mash gained 215%, but the advantage in favor of silage is that it is a cheaper feed than milk. A flock fed silage laid 30.5% more eggs than one that didn't get it.

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PHYSICS

Glass Is Mostly Gas, X-Ray Studies Reveal

GLASS, so hard and brittle, is mostly composed of the gas we breathe to keep alive; 92% of its volume is occupied by oxygen atoms, to which also 95% of its light-bending power is due. These and other facts concerning the formation of glass were revealed by X-ray studies, Dr. Alexis Pincus, research scientist of the American Optical Company, declared in an address to the Ceramics Club of Rutgers University.

Only one per cent of the glass volume is occupied by the atoms of silicon—the chief component of sand—but it is this small quantity of silicon, Dr. Pincus continued, that imprisons the oxygen and makes it form glass.

Other elements have this power too, Dr. Pincus disclosed; for example, boron, phosphorus, antimony, tantalum, tungsten, germanium and columbium. Glasses based on some of these elements have been made, he said, and for special purposes are superior to glasses made with silicon.

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ZOOLOGY

Army Private Takes "Bugs" From Dead Toads to Camp

BECAUSE First Class Private Stanley Stewart took tiny "bugs" from dead toads in his baggage to Camp Lee, Private Stewart is now credited with making an important science discovery.

The microscopic germs, which Private Stewart brought to Washington on glass slides to the Smithsonian Institution when he got his first Army leave, prove to be a germ unknown to science. Toads, which rate as a friend of farmers, have been vanishing rapidly throughout the states, and scientists say that perhaps the new-found germ is one major reason for dwindling toad population.

Private Stewart, a medical technician in pre-Army days, was attracted to the toad germ mystery when he noted droopy toads, that did not hop, and that when touched would topple over, jerk a little, and die. Dissecting them, he discovered tiny germs that loomed up like leatherback turtles under a strong microscope. These were buried in toad stomach linings, causing peritonitis.

Private Stewart has taken his "bugs" to Johns Hopkins University in Baltimore for a further check-up.

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