

## Sinful Protohyta

YEASTS, the ultimate sinners in all scofflaw occupations in the United States, have been makers of alcohol for many millions of years. Their cells have been found in rocks older than the Coal Age and infinitely older than the times of the dinosaurs, by Prof. Johannes Grütz, Berlin paleontologist. With them in many cases were tiny bubbles of carbon dioxide gas, the same stuff that makes the "bead" on home brew.

Prof. Grütz found the yeasts as an incident in his search for the oldest fungi in the world; yeasts are a specialized form of fungi. The other fungi which he found, in rocks of Devonian age, were parasites on the primitive plant life of those days. They infested their stems and fruiting bodies, breaking down the cells and feeding on tissues, as parasitic fungi do to farmers' crops and foresters' trees today.

*Paleomycology*

*Science News-Letter, May 24, 1930*

## Oil

AMERICAN capital may make Germany an oil-producing country of world importance.

In recent years a number of small German companies have been boring into the northern plain where there are thought to be large deposits of oil. But they did not have the means to drill deeper than 1,000 feet and the government would not help them.

American interests have now gained control of these companies. With mining rights over about 1,600,000 acres, the foreigners have bound themselves to bore until oil is found and to carry at least five borings to a depth of 3,000 feet by 1936. Many wells in other parts of the world are deeper.

*Mining Engineering*

*Science News-Letter, May 24, 1930*

## Yellow is Better

YOU must make your Johnny-cake and corn meal mush of yellow corn meal instead of white if you expect to get your daily supply of growth-promoting vitamin A from either of these two dishes, it appears from results of work just reported by S. M. Hauge and J. F. Trost of the Purdue University Agricultural Experiment Station.

These investigators found that vitamin A is present in corn which has kernels that are yellow all the way through. The fact that yellow corn contains more vitamin A than white was observed by Dr. H. Steenbock of

the University of Wisconsin, but not until the work of the Purdue investigators was it known whether the yellowness associated with the vitamin was present in the outer coat or in some other part of the seed. Now it appears that it is the yellowness of the starchy storage tissue called endosperm, and not the yellowness of the outer coat of the grain, that indicates the presence of vitamin A.

This discovery adds one more requisite to the list of qualities expected in a successful new variety of corn. Heretofore yield and resistance to disease have been the main factors considered. Now the color of the endosperm must be taken into account, because it is of course desirable to have as many nutritive items as possible in the same food.

Professors Hauge and Trost have found that the vitamin A content of corn is inherited in a simple definite way, just as yellow color is. This will prove of great assistance to the plant breeders in the production of new varieties for they will know when and when not to expect the vitamin in making certain crosses.

Vitamin A is the one which prevents the eye disease known as xerophthalmia and is also necessary for growth. It is of vital importance in the nutrition of all the higher animals including man. It occurs rather abundantly in green leaves, in certain roots, in butter and in egg yolk. In edible plant tissue it seems to be usually associated with yellow color. Thus yellow carrots contain more than white, yellow turnips more than white, and so on as far as tests have been made.

*Nutrition*

*Science News-Letter, May 24, 1930*

## 1,954 Motions

IF you clear away the dishes for an average American family and do the job in the customary American manner you spend just 38 minutes and eight seconds a day at the task, and the number of motions—if you are interested—is precisely 1,954. This information, preliminary to bettering the American speed record, has been ascertained by Mary K. Heiner and N. M. Venner, of the University of Chicago.

By applying office efficiency to the dining room and kitchen, you can cut the daily dishwashing schedule to 22 minutes and 58 seconds flat, these investigators state in reporting their work in the *Journal of Home Economics*. Saving in energy amounts to almost 950 motions.

Present standard methods of Ameri-

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can dishwashing include scraping and stacking the dishes at the table, washing the dishes by hand after each meal, and drying them by hand with a towel.

To reduce to a minimum the time and energy spent on dishwashing, a housekeeper must be willing to break with traditional methods, the investigators emphasize. Dishes for three meals must be washed at one time, probably after breakfast. The dishes are allowed to dry in the air instead of being wiped with a towel. Instead of storing all dishes in a cupboard, those for the next meal are separated and parked conveniently, while bowls and platters are stored on an open shelf near the stove. The rest of the dishes are stacked on a tea cart and transferred to the cupboard. Dishes waiting to be washed are left stacked on the sink table until washing time, thereby saving three minutes and 22 seconds otherwise spent in hiding them in the oven.

*Home Economics*

*Science News-Letter, May 24, 1930*

## Quiet

UNTIL its tranquility was broken by the severe earthquakes of May 5 and 6 in Burma and Persia, the crust of the earth had been singularly free from severe disturbances since the Aleutian Islands world-shaking shock of December 17 of last year.

This period of nearly six months of comparative freedom from earthquakes is unequalled in the recent annals of seismology. When earthquake experts gathered in Washington for meetings a few days ago it was a topic of conversation.

A local shock in Imperial Valley, California, the first week in March, and a larger earthquake centered in the Banda Sea, between the islands of Borneo and New Guinea, on March 26, were the only earthquakes on record in the quiet period.

*Seismology*

*Science News-Letter, May 24, 1930*

## Prevents Rickets

OLD-FASHIONED cod liver oil is a better preventive of rickets than the modern product, viosterol, which consists of vegetable oils that have been supplied with vitamin D by irradiation. Drs. Adolph G. De Sanctis and John Dorsey Craig of New York reported to the American Medical Association.

## SCIENCE FIELDS

Drs. DeSanctis and Craig based their report on observations made on over 200 normal infants. In a group of 100 infants given cod liver oil only three developed unmistakable signs of rickets. In a group of 123 infants given viosterol 29 showed undisputed evidence of rickets. Infants receiving no rickets-preventing agent at all develop signs of the disease in 25 out of 100 cases, many writers have reported.

The dosages of the two substances were the generally accepted and recommended ones: three teaspoonfuls of cod liver oil daily or 10 drops of viosterol.

The two physicians concluded that either the present recommended preventive dose of viosterol is too small to prevent rickets or else rickets is not due to lack of vitamin D alone. The latter possibility is more probable, in their opinion.

*Pediatrics*

*Science News-Letter, May 24, 1930*

### 1200-Year-Old Beard

A 1200-year-old beard is the unusual find made in an ancient grave accidentally uncovered by ditch-diggers near the town of Lörrach in Baden, Germany. The workers came upon several burials; they were identified by objects found with them as belonging to the Frankish culture of about 700 A. D.

One of the burials was in a coffin made of rough sandstone slabs. This latter, when opened by Dr. Georg Kraft, of the University of Freiburg in Breisgau, disclosed the somewhat decomposed skeleton of a man about 40 years old, with a matted triangle of wavy, red-brown hair where the chin had once been. The beard has a curious shape, being pointed but longer on one side than on the other.

*Archaeology*

*Science News-Letter, May 24, 1930*

### Granite Dust Reduced

REMOVAL of air at a speed of 1,500 feet per minute, measured at the surface of the ventilating hood, is the standard for ventilating systems that will reduce the dust in the air of granite plants to a safe level, the U. S. Public Health Service has announced as the result of its studies just completed.

Dust in the various operations of the granite industry has long been a

serious hazard to workers' health. The disease of the lungs known as silicosis was found to develop as a result of prolonged exposure to the granite dust through long periods of employment. Previous studies showed that when the air which the operator breathed had less than 10 million particles of dust per cubic foot of air, it was safe. Certain of the granite cutting plants had ventilating systems which provided sufficient ventilation to make the plants safe for the workers when the systems were properly operated, the recent investigations showed.

*Mining Engineering*

*Science News-Letter, May 24, 1930*

### Strangled

COTTON plants are strangled to death by hard, dry clay in a new disease of cotton which has been discovered by J. J. Taubenhans, W. N. Ezekiel, and H. E. Rea of the Agricultural Experiment Station, Texas.

"Root strangulation," as the disease has been named, occurs only in flat, poorly-drained, heavy clay soils which are compacted by continuous rain or irrigation. The affected plants wilt and die suddenly.

When the dead plants are pulled they seem to have no roots. However, a careful investigation showed that the plants do have a well-developed root system, but that the hard soil literally strangles the plants to death by constricting the roots and preventing the passage of moisture from the soil to the top of the plant.

*Plant Pathology*

*Science News-Letter, May 24, 1930*

### Scooped-Up Diamonds

MOST of the world's diamond supply no longer comes from mines. The gems are scooped up with steam shovels.

To be sure, the steam shovels get a lot of sand and only a few diamonds, but the diamonds can be sifted out as though they were ordinary pebbles. The discarded sand piles up into a veritable artificial mountain.

This gathering of diamonds from the surface is a new development in the obtaining of the world's most valued gems. For centuries diamonds have been laboriously dug from the earth, often at great depths. But recently diamonds were found in great numbers in alluvial deposits in South Africa, and now fully 70 per cent. of the world's supply comes from these surface scrapings.

*Mining*

*Science News-Letter, May 24, 1930*

### Jazz

IF you dislike jazz music, it may be that your ears do not have the same limit for high pitched sounds that exists in the ears of other people.

This possible connection between dislike of jazz and the upper audible limit was suggested by E. Russell Wightman of Gunnison, Colo., in a report to the Southwestern Division of the American Association for the Advancement of Science.

In Mr. Wightman's experiment upon a large number of people, the lower audible limits of their hearing were not found to vary much with different individuals. But range for the hearing of the high-pitched sounds was slightly over 4,000 vibrations per second to much over 50,000 vibrations per second. About three-quarters of the individuals had an average of 15,000 vibrations per second.

One curious condition was noted in the tests. Many individuals showed bands of hearing or areas of frequency in which no sound was sensed. Some have as many as four such blank bands or silent zones. But only a very small percentage of these individuals examined showed such blank bands.

How individuals determine direction of sounds was also investigated by Mr. Wightman. There has been much discussion on this subject among psychologists and physicists during the last twenty or more years. Mr. Wightman found evidence that when pure tones are used, some individuals determine direction by means of phase difference between the sounds coming to the two ears, while others determine direction by means of the relation of aptitudes in the two ears. Still others determine direction by means of both.

*Psychology*

*Science News-Letter, May 24, 1930*

### Plant Patents

THE plant patents bill, which if enacted will make it possible for plant breeders to obtain patent protection on new varieties that can be propagated by cuttings, grafts and similar means, has been passed by the House of Representatives and is now on the Senate Calendar awaiting action. It may be passed by the Senate also before adjournment. If it is left unenacted in the jam of closing business, it will remain on the Senate calendar and can be acted on early during the next session of Congress.

*Horticulture*

*Science News-Letter, May 24, 1930*