

## CHEMISTRY

## Lysozyme and Avidin May Be Related Substances

► THE SUGGESTION that an anti-bacterial substance and an anti-vitamin substance obtained from egg white may be related or, perhaps, identical, is made in reports by Dr. Karl Meyer, of the College of Physicians and Surgeons, Columbia University, and William L. Laurence, science writer for the *New York Times* (*Science*, May 12).

The two substances are lysozyme, which Dr. Alexander Fleming, of London, England, discoverer of penicillin, found would dissolve, or lyse, certain microorganisms, and avidin, a chemical that combines with the vitamin, biotin, and thus deprives microorganisms of the vitamin.

Biotin increases the activity of lysozyme, Dr. Meyer reports, adding that "the data reported here cannot be explained with certainty at the present time."

Tests which "showed that the avidin activity in each avidin concentrate closely paralleled its lysozyme activity" are reported by Mr. Laurence, who suggested the study to Dr. Meyer and who also points out that earlier studies have brought to light a number of common chemical and physical characteristics of avidin and egg white lysozyme.

*Science News Letter*, May 27, 1944

## CHEMISTRY

## Isoprene from Petroleum Saves Valuable Turpentine

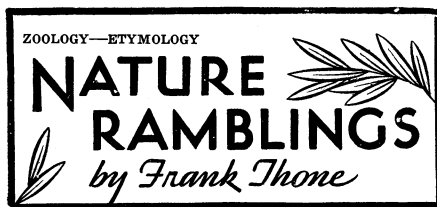
► A METHOD of producing isoprene, basic building block of natural rubber and important ingredient of synthetic rubber, was described at the semi-annual meeting of the American Institute of Chemical Engineers, held at Cleveland, by J. M. Mavity and E. E. Zetterholm of the Universal Oil Products Company of Chicago.

Heretofore the isoprene needed for commercial use has been derived from turpentine, but when the new process is put into action the oil wells of the nation will supplant the pine trees, saving valuable turpentine for other vital uses.

By the new process isoprene will be formed from readily available petroleum hydrocarbons by chemical methods, in one simple operation.

The authors stated that isoprene will play a far more important part in the synthetic rubber field in the future.

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An Owl Howled

► THE CLASSIC anecdote, about the Cockney who was reassured that a weird sound he heard in the dark woods was "only an owl," and demanded to be informed "Wot in 'Eaven's nyme was 'owlin'?" may not be a joke on the Cockney after all. He may have had an innate feel for the onomatopoeic link between owls and howls—despite the lack of likelihood of his recognition of it under such terminology. We think of owls as hooting birds; it is not at all improbable that our grandsires thought of them as howling fowl.

We get an equally close approximation between the two words in modern High German: howl is *Heule*, and owl is *Eule*. And a strange echo comes in with that somewhat "high falutin'" English word that means a howl: ululation.

However, whether the fowl we call an owl was named for its howl or not, there can be little question of the origin of many American and English bird names from the birds' own calls: chickadee, peewee (or phoebe if you insist), whip-poorwill, bobwhite, bobolink, chewink, cuckoo, pipit, tomtit. There are those, too, who feel that the name "dove" was suggested by the birds' subdued cooing; and there is no doubt at all of the origin of the Latin *turtur* and its close English derivative "turtle."

It may well be that some farmer in ancient Latium, centuries ago, listening to the loud honking of a big bird in his barnyard, decided that the right name for the creature was *anser*—there really is something suggestive about the sound. It survives in German *Gans*, but is rather attenuated in our "goose."

Some stretch of the imagination may be required to hear a cow say "cow"; but a Scot will call her a "coo," and

that gets pretty close to the conventional "moo." And anybody who has had even the most distant acquaintance with a bull has heard him repeat his own name over and over. Similarly, it is difficult to imagine any dog barking sharply enough to say "dog"—but any hound giving tongue bays "haound" again and again. The Greeks had a name for him, too: *kyon*, which is supposed to have been pronounced more like "kü-on." At any rate, it sounds like good dog-Greek.

Of course, name-games like these are not to be taken too seriously, unless you are a well-trained student of the history of languages. But if you aren't playing "for keeps," they can be a good deal of fun.

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## INVENTION

## New Process For Heating Canned Foods Patented

► STERILIZATION-heating of canned foods as a continuously-flowing process, instead of the batch pressure-steaming method now generally used, has been patented. The new process, developed by H. L. Smith, Jr., and W. E. Conley, Jr., of Richmond, Va., consists essentially in carrying the cans on a conveyor belt through a bath of heating fluid kept up to the necessary temperature by steam coils, then through a low-temperature bath to cool them as quickly as possible. At the same time, the cylindrical cans are kept spinning on their long axes, which circulates their contents and thus facilitates heat exchange.

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