

## CHEMISTRY

**Vitamin D in Lipsticks Banned by Foundation**

"KISS the pretty lady, Junior; you haven't had your vitamin D yet today."

That might have been the newest advertising slogan if the Wisconsin Alumni Foundation, holder of patents for the process of irradiation to give vitamin D content, had yielded to the recent pleas of several large cosmetic concerns which wanted to irradiate their lipstick products.

"Get your man with a vitamin kiss," might have been another of the slogans if Dr. Harry L. Russell, director of the Foundation, had decided to sell lipstick rights to the cosmetic manufacturers. But Dr. Russell decided that the cosmetic people were more interested in getting a "splash" advertising slogan than in seeing to it that people got their proper amount of vitamin D, the "sunshine vitamin."

Therefore unless cosmeticians devise some other way of getting vitamin D into their product, they will have to go without the slogans. For similar reasons Dr. Russell has, in recent months, turned down applications from soda water people, chewing gum manufacturers, and candy makers to buy irradiation rights for their respective products. Only the original vitamin oils, cod liver and haliver, and milk are allowed to use the irradiation process to increase vitamin D content and hence anti-rickets value.

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## ENGINEERING

**Travel Comfort Increased by Reducing Shaft Vibration**

ITALY, in making her bid for supremacy in transatlantic passenger ships, has already taken long strides in the elimination of seasickness from rolling. Not satisfied with this step ahead, Italian marine engineers are experimenting with machines that will counteract the annoying jar and shudder from high seas and engine vibration.

Everywhere in industry, especially in the manufacture of automobiles, efforts are constantly being made to stop vibration with shock absorbers, rubber cushions, and different arrangements of springs. In a ship, however, although propeller "shake" can be minimized, builders run into difficulties when they

try to eliminate it altogether.

Everyone who has fired a shotgun or caught a baseball realizes the truth in the axiom that every action has a reaction. When a large propeller blade turning at high speed slaps the water, it is obviously going to make something shake, and there is no way of breaking the shock with springs. The method which shipbuilders are using to make a ship's motion as smooth as that of Noah's Ark is, strangely enough, to create a new vibration of exactly the same force which will offset the other.

A weight about equal to that of a trolley car is suspended on a beam in the center of the ship, and is made to vibrate up and down by machinery which can be controlled to conform with the speed of the propeller. Very delicate adjustments can be made, and it is found that when this weight gets up to a certain speed of vibration the shake from the propeller suddenly diminishes. Then when the two exactly counteract each other it vanishes altogether.

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## HISTORY

**Islanders Sailed to America Even Before Vikings Came**

BEFORE the Vikings, and long before Columbus, America received foreigners who sailed from islands 2,000 miles away.

A critical study of voyages of these daring seafarers was presented before the American Philosophical Society by Dr. Roland B. Dixon of Harvard University. The voyagers came riding in long double canoes from the Polynesian Islands in the tropical Pacific.

That the islanders did have contact with America is shown by the presence of the American sweet potato in Polynesia when Europeans first came there.

While calling the old Polynesians the most skilful and daring navigators among primitive peoples, Dr. Dixon declared that the facts about their extraordinarily long voyages have been greatly exaggerated. The maximum limit of their adventuring carried them not much beyond 2,000 miles, and such ranges were rare.

A voyage of this length, he said, would have enabled Polynesians to reach America from Hawaii or Easter Island, but island tradition is silent on any such voyage. Since the oldest traditional long voyages were made about the tenth century, Dr. Dixon suggested that the New World voyages were earlier.

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## ARCHAEOLOGY

**Identity of Olynthos Established by Inscription**

THE LONG search of archaeologists for inscriptions and public buildings at ruins believed to be those of Greek Olynthos has been rewarded.

A cable report from Dr. David M. Robinson, of the Johns Hopkins University, who is excavating the ruins, says that the expedition has found fifteen lines of writing proclaiming the alliance of King Philip with the people of Olynthos. The inscription verifies Dr. Robinson's long-held conviction that the site he has been exploring is the real Olynthos, which was a Greek city so important and wealthy that Philip of Macedon looked upon it with eager, envious eyes.

Ancient history records the very alliance with Philip which has now come to light in the city ruins. In 348 B.C., however, Philip swept down upon the city and razed it to the ground, selling the inhabitants at auction.

The expedition has also found the city's arsenal and the place where the public stores were kept.

Apparently the city once suffered from a severe epidemic, and thirty victims of the strange malady have been found buried together.

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## MEDICINE

**Test Tube Replaces Cow In Vaccine Production**

ACCIDENTS following smallpox vaccinations will probably be fewer in number as a result of a new method of producing the vaccine just announced by Dr. Thomas M. Rivers of the Rockefeller Institute for Medical Research. Instead of growing the virus for the vaccine in cows, Dr. Rivers and associates have found a way of growing it on living cells in a test tube. This insures a product free from contaminating organisms which have occasionally been a source of trouble in the past.

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# CE FIELDS

## ASTRONOMY

### Phosphorus Found in Sun; Score Is 59 Out of 92

**P**HOSPHORUS has been given its place in the sun. It is the 59th of the 92 chemical elements to be found in the spectrum of the sun.

Dr. Charlotte E. Moore of the Princeton Observatory inspected solar spectrograms of the infrared or heat region of the sunlight made by Dr. Harold D. Babcock at Carnegie Institution's Mt. Wilson Observatory, Calif., and compared them with spectra of phosphorus light photographed in the laboratory by Dr. C. C. Keiss, U. S. Bureau of Standards, Washington, D. C. Five lines in the two tell-tale spectra of earth and sunlight corresponded in position and intensity, good proof that phosphorus exists in the sun.

Astronomers feel confident that all of the chemical elements exist in the sun and will be eventually discovered.

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## ZOOLOGY

### Fashion Demands Cause Massacre of Reptiles

**T**HE FASHION of using the skins of snakes and lizards for shoes, handbags, house decorations, and even for dresses and hats, is creating a number of unusual problems for zoologists.

Figures collected by the Reptile Skins Committee of the Imperial Institute, London, show that the number of reptile skins exported annually by India alone has risen from some 2,500,000 in 1932 to about 4,500,000 in 1933.

By far the largest trade is in lizard skins. Of these 4,248,480 were exported from Calcutta last year. The Calcutta export totals under three heads were listed as: crocodiles, 72,213, pythons, 6,122, and other snakes, 56,789. Reptile skin exports from British Malaya have increased from nine tons in 1931 to 1,749 tons in 1933.

Zoologists have mixed feelings about this rapid increase in the reptile-skin trade. H. W. Parker, assistant keeper

of zoology at the British Museum and a member of the Reptile Skins Committee, states that he was in favor of the trade only so long as certain protective measures were observed. Nearly all snakes should, he considers, be protected by law during their breeding season, while the slaughter of young snakes should be prevented by imposing a minimum size limit. He suggests that the killing of lizards of less than seven inches maximum girth should be prohibited, and that the minimum permissible width for the skins of boa constrictors and pythons ought to be eight inches.

Apart from its zoological aspect, the extermination of snakes, however poisonous, is not necessarily desirable even from the viewpoint of the ordinary inhabitants of the areas where they are found, Mr. Parker points out. Most of the snakes prey on rodents, which would in many instances increase enormously, to the serious disadvantage of man, if their natural enemies disappeared.

Moreover, several harmless reptile species have already been almost exterminated by wholesale slaughter, whereas if closed seasons had been imposed a good supply of them would have been available indefinitely. The species in most danger are those only found within a restricted geographical area, however plentiful they may at present be within that area.

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## PUBLIC HEALTH

### Find Aluminum Utensils Not Dangerous To Health

**D**AILY INGESTION of small quantities of aluminum, such as might result from the use of aluminum cooking utensils or of certain chemical yeasts containing aluminum, is not dangerous and does not induce cancer, as some have feared.

This is the conclusion arrived at by Drs. Gabriel Bertrand and Pierre Serbescu of the University of Paris as the result of experiments on rabbits, which they have recently reported to the Paris Academy of Sciences.

These experiments seem to confirm the results of American investigators who found aluminum cooking utensils harmless.

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A sandal made a thousand years or more before the Christian era was found in Carlsbad Caverns, N. M., showing that Indians knew the caves long ago.

## ETHNOLOGY

### Plains Indians Liked Two-Handed Tools

**I**NDIAN tool makers, working with stone, had pretty definite ideas in their heads as to what a tool should be like.

A study of several hundred ancient tools of the sort known as sidescrapers has been made by Miss Betty Yelm of the University of Denver, to learn whether these implements were right-handed, left-handed, or ambidextrous. Miss Yelm said that from 60 to 80 per cent. of the scraping tools she examined were intended for use with either hand. The tools were made by Plains Indians of Colorado, Wyoming, and Oklahoma. A preference for right-handed or left-handed tools—if an implement was not to be made for ambidextrous use—was found typical of certain districts.

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## ORNITHOLOGY

### Eagle So Tame It Eats From Hand

**T**AMING the eagle, our fiercest bird of prey, is about as startling news as a man biting a dog.

Great Smoky Mountains National Park, in North Carolina and Tennessee, has a tame eagle. It is vouched for by Park Superintendent J. Ross Eakin who, in making the report to the National Park Service authorities in Washington, says, "Sounds like a whopper—but it is not."

Early in March two golden eagles that had been held for two months in cages in the park were liberated. They had been captured in the Cumberland Mountains. Ornithologists recommended that they be held in captivity until warm weather in order that they might have less trouble in securing their natural food, which might induce them to adopt the park as their home.

Upon being liberated, one eagle apparently left the park at once; at least it has not been seen since.

But the other proceeded to make ornithological news. It has become quite tame. When not hungry it soars around like any other eagle, but when in need of food it alights and takes meat from a ranger's hand. The ranger is convinced that it has quit hunting for its own food and gone to panhandling. Perhaps it believes that the world now owes it a living.

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