

## Pluto's Color

THE color of the new planet Pluto, as Planet X has been christened by its discoverers at Lowell Observatory, is totally unlike that of the other outer planets but resembles the inner ones, Roger Lowell Putnam, trustee of the Lowell Observatory and nephew of the late Prof. Percival Lowell, founder of the observatory, announced to Science Service.

Mars at the immense distance of Pluto would be no brighter than the new planet, Mr. Putnam declared. If it is assumed that Pluto reflects the same proportion of the sun's light as the moon or the innermost planet Mercury, then computations show that Pluto would be larger than the planet Mars which itself is not much smaller than the earth.

Only premature publication of an unauthorized story caused the Lowell Observatory authorities to announce their naming of the new planet before communicating with the American Astronomical Society or the Royal Astronomical Society.

"It is too soon to draw definite conclusions on the new planet," Mr. Putnam said, "but the fact remains it was discovered substantially in the place predicted by Prof. Lowell and its discovery was wholly due to the work started by him."

*Astronomy*

*Science News-Letter, June 7, 1930*

## Waste is Best

IF you want your dog to reach a ripe old age, say twenty years, do not feed him the choice cuts of meat; feed him the internal organs, the parts generally thrown away," says Dr. William Lentz, director of the Small Animal Hospital of the University of Pennsylvania. Checking up on research on longevity in dogs, Dr. Lentz has found that among a number of dogs which reached the age of twenty years or more, the great majority had access to the waste material cast out by butchers and abattoirs, this waste consisting of the softer internal organs, and not the firm muscular portions of the meat.

The dog, being carnivorous when left to himself, follows the instincts of his wild brothers; and observation has shown that beasts of prey do not devour the muscular portions of the animals which they bring down, but rather rip the carcass open and eat the inner organs. Dr. Lentz points out that man has sought to

adapt the dog's diet to his own, much to the detriment of the dog. It appears that carnivorous animals derive certain benefits from the softer diet, possibly from vitamins contained in the glandular organs.

Dr. Herbert Fox, director of the Pathological Laboratory of the Philadelphia Zoological Society, and author of an outstanding work on diseases of wild animals in captivity, has found that the diet of muscular meat, ordinarily fed to lions and other carnivora in captivity, is not nearly as beneficial to them as a diet of softer meat, more nearly approximating the lion's choice in his wild state. Considerable study is being given this subject by Dr. Fox, who is also director of the Pepper Pathological Institute of the University of Pennsylvania.

*Animal Husbandry*

*Science News-Letter, June 7, 1930*

## Booze for Moths

ORCHARDISTS are now putting up moth traps in the tops of the apple trees in the orchards of the Pacific Northwest. These traps are vessels filled with hard cider, fermented malt syrup or a similar liquor which by its odor attracts many kinds of moths.

The orchardist puts these traps up for the codling moth, whose larva eats its way into the apple. The grower must know these moths from others, for the traps are not put up with the intention of destroying any appreciable quantity of them, but to let the orchardist know when they appear. When a number of these moths are found in the liquid the orchardist begins his spraying for the pests.

*Entomology*

*Science News-Letter, June 7, 1930*

## New Berry

A NEW berry has appeared at Portland, Ore., that may be of considerable value to the growers of northwestern United States. Seemingly it was only a wild black raspberry. Marshall Morris found it in the woods near his home and a large bush furnished him berries for one summer during a very dry period. It did better than his cultivated berries, so he secured some of the canes for his home place.

This year the old canes did not die down in winter but branched out, and are now filled with green fruit. Last fall he picked berries from these same canes in October.

An examination of the vines sug-

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gests that this variety may be a hybrid of the black raspberry with some species of blackberry. Its leaves and growing habits are much the same as some of the blackberries but the fruits are raspberries.

The value of the new variety will be in its heavy bearing, its long bearing season and its resistance to dry weather. The berries will be shown to experts this year to get their opinion as to whether they are suitable for a commercial shipping or canning berry.

*Horticulture*

*Science News-Letter, June 7, 1930*

## Drifting Mexicans

BY checking up on the money orders sent back home by Mexicans in the United States, a Mexican scientist has cleverly gathered some new facts about border immigration. Figures on Mexicans who enter this country, particularly those who come temporarily for picking fruit, thinning beets, or other seasonal employment, are confusing and contradictory. Thousands of these workers ford the Rio Grande in order to avoid paying the United States an eighteen-dollar visa and head tax, which they do not happen to have. When they return, they register boldly and officially at the Mexican office, for there is no reason to do otherwise.

Records of the national Mexican post office, made available to Dr. Manuel Gamio, one of Mexico's leading scientists, have shown that about \$5,000,000 is sent into Mexico each year by postal orders from Mexicans in the United States. The records indicate that the northern plateau of Mexico, and to a lesser extent the central plateau, are supplying the greatest number of Mexican workers to the states. Seasonal fluctuations in the postal orders sent from different states bear out the belief that a large proportion of the Mexicans who cross the border do so to engage in seasonal work and return home when idle.

The Mexican who comes to work and live in the United States does not assimilate into American civilization, Dr. Gamio declares, in explaining his view that it would be for the good of both countries to restrict permanent immigration from Mexico.

*Sociology*

*Science News-Letter, June 7, 1930*

## SCIENCE FIELDS

### *Historic Pipes*

CLAY pipes by the hundreds, flipped over the walls of famous Mont Orgueil Castle in the little old island of Jersey during the 300 years since Sir Walter Raleigh was governor there, are being unearthed in ancient deposits of debris and classified by Major N. V. L. Rybot, archaeologist of the Société Jersiaise as an astonishingly faithful index to the history of the castle and the island as well.

In addition to being dated, many of the pipes bear ornamental devices. Among the specimens from the more recent deposits is one depicting a proud Admiral Nelson receiving a wreath in homage from Britannia and another clay bowl showing the face of Queen Victoria, a souvenir of her visit to the stronghold in 1846.

Where dates and commemorative devices are lacking, the pipe's place in history is established by its own design and structure. Very early relics, preserved from the 17th century in a dust bin directly below the ancient kitchen of the governor's palace, are small, gracefully curved and shell-like. The long fragile stems, of course, were snapped off long ago but the bowls are perfectly preserved.

Proceeding from the pattern of pipe which Sir Walter introduced there in 1600 when he came as governor, the bowls grow heavier, the stems coarser and the angle at which the bowl joins the stem decreases notably. Coming to the modern collection, the design becomes that of the present-day Irishman's stumpy favorite. The Victorian epoch stands out in the collection by reason of the great number of souvenir pipes, many of them showing ingenious and complex modeling, in contrast with the simple but attractive craftsmanship of their forerunners.

As the excavation of the dust bin was carried down from recent to more and more remote levels the yield of the midden or rubbish heap increased tremendously in scientific interest. From the shells, bones and bric-a-brac of all sorts the researchers gleaned intimate information on the habits of the representative population who used to live in the old castle. Ascribing definite dates

to this wealth of material, however, would have been a poser had it not been for the pipes, numbers of which were found on every horizon and are still being discovered. With the vital contribution of the old clay comforters, an unbroken sequence, telling the whole story of life of Mont Orgueil, is rapidly being pieced together by the Société Jersiaise.

*Archæology*

*Science News-Letter, June 7, 1930*

### *Three in One*

THREE stars whirl where the unaided eye sees only one spot of light in the sky, Prof. F. C. Henroteau of the Dominion Observatory at Ottawa has discovered as a result of studies of Eta Virginis, a star of medium brightness in the constellation of Virgo. Heretofore this star has been considered a double, with one dark invisible star moving about the one that can be seen. Now Prof. Henroteau from his observations is able to deduce that there must be a third dark massive body in the stellar system and that the star is really triplets.

*Astronomy*

*Science News-Letter, June 7, 1930*

### *Sick Mosquitoes*

THE possibility of mosquitoes giving a disease to other mosquitoes, just as they give it to man, has been demonstrated by Major Joe H. St. John and Major James Stevens Simmons, both of the U. S. Army Medical Corps, and Captain Francois H. K. Reynolds of the Veterinary Corps, working at the Army medical department research board bureau of science in Manila.

The disease of the experiment was dengue fever, which is transmitted from man to man by mosquitoes. In the experiment, mosquitoes were allowed to feed, through guinea pig skin, on the macerated bodies of other mosquitoes which had been infected with the virus of dengue fever. Just to prove that the second group of mosquitoes had actually picked up the virus, two American soldiers allowed themselves to be bitten by them. They both had typical attacks of the disease.

The experiment is important to science because it showed that the virus could be transmitted from one insect to another without passing through a vertebrate host, such as man. This may lead to more complete knowledge of the life history of this and other viruses. Also it

will now probably be much easier to keep strains of the dengue fever virus alive in the laboratory.

*Medicine—Entomology*

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### *Corncob Stone*

MAIZOLITH, a substance harder than stone and stronger than most kinds of wood, is one of the newest products of chemical magic working on cornfield wastes. It can be made from any part of the corn plant, but most advantageously from corncobs. It is one of the things that has been made by the chemists of Iowa State College at Ames, and has recently been undergoing tests on a semi-commercial scale at the U. S. Bureau of Standards.

It is prepared by chemically digesting the corncobs, reducing them to a uniform jellylike pulp in certain standard paper-mill machinery, and pressing the jelly in a mould. The resulting solid material is a dense, hard, bonelike substance, ranging in color from a golden tan to a deep ebony. It is somewhat stronger than the hardwoods, and is a good electrical insulator. It can be machined and polished into non-metallic gears, washers, panels and other objects such as are now made from hard rubber and bakelite.

It is estimated that a commercial plant with a production capacity of five tons per day could manufacture it at a cost of about \$240 a ton. The cost might be cut if it is manufactured as a by-product in other corn-stalk industries.

Its trade name, maizolith, Englishes into "corn-stone."

*Chemistry*

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### *Scientific Statuary*

COMMISSIONED to make upwards of 200 sculptured figures, busts and face casts of all the principal types of human beings for the Field Museum of Natural History, Miss Malvina Hoffman of New York has sailed for Europe, where she will receive the cooperation of anthropologists of many nations in her work. After she has studied and modeled various types of Europeans, she will probably make other trips to the Orient and the tropics to find new models for her scientific sculpturing.

Miss Hoffman was a pupil of Auguste Rodin, Herbert Adams and Gutzon Borglum.

*Anthropology*

*Science News-Letter, June 7, 1930*