

ASTRONOMY

Russians Name Three Minor Planets

► THREE MINOR planets, or asteroids, discovered by the Russian astronomer G. N. Neujmin nearly 20 years ago will now be known by name instead of by the year of their discovery.

Following international custom, Dr. Neujmin picked the asteroids' names.

The minor planet 1936 FC will now be called Lomonosowa, in honor of the first famous Russian physicist and astronomer, Mikhail Vasilevich Lomonosov, who died in 1765.

Another asteroid previously called 1936 QA will be known as Idelsonia, so named in honor of the late well-known Soviet astronomer, N. I. Idelson.

The third minor planet, once known as 1938 HC, will now be called Postrema, which signifies the last link or the last of a group, and is assigned to the last minor planet discovered by Dr. Neujmin which has been numbered.

Mrs. N. Yakhontova of the Institute of Theoretical Astronomy in Leningrad, USSR, submitted the names to the Cincinnati Observatory, the world's minor planet center.

Asteroids are thought to be fragments of an exploded planet that once swung around the sun between the orbits of Mars and Jupiter. Although star-like in appearance, they are actually hunks of dead matter shining by the sun's reflected light.

The first asteroid to be discovered was found on Jan. 1, 1801. Since then about 1,500 have been named by their discoverers. The earlier asteroids were named after mythological creatures, but the legendary lore of most lands is now pretty well exhausted.

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METALLURGY

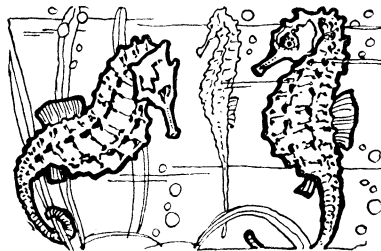
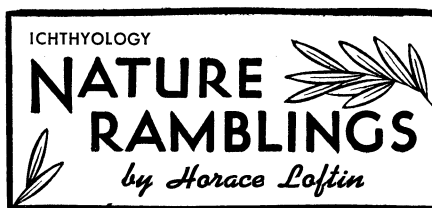
Hidden Rust in Autos Is More Destructive

► A DIFFERENT type of rust forms in the crevices and difficult-to-reach areas of a car than on the surface where paint has chipped or scraped off.

A rust analysis by three General Motors scientists showed that the corrosion in sheltered areas of the auto body is by far the more insidious. This rust contains between 80% and 90% magnetite and 10% to 20% ferric oxide hydrates. It is a porous rust and conducive to further corrosion.

Rust on the outside of the car is principally composed of ferric oxide hydrates that retard further rust formation, J. C. Holzwarth, R. F. Thomson and A. L. Boegehold told a meeting of the Society of Automotive Engineers in Detroit. The washing action of rain and the quick and complete drying afterward aid formation of the protective rust.

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Hen-Pecked Fish

► ONE OF nature's most devoted fathers is the male sea horse—and with good reason. For it is the male sea horse that has the babies

During mating, the female deposits her eggs in a pouch on the underside of the male's tail. He carries the developing eggs about with him in the distended pouch for several weeks. On the happy day, the sea

horse may have up to 400 "colts," about the size of this (,) comma.

After that, though, the sea horse thinks he has done enough, and leaves the young to fend for themselves. A relative of the sea horse, the Florida pipefish, *Siphostoma floridae*, does a better job. He keeps his young in a pouch in the same way a mother kangaroo does.

The female pipefish deposits her eggs in the male's pouch, as with the sea horses. After hatching, the small fry swim out at will, but return to the pouch when they are frightened.

From the female's point of view, probably the ideal arrangement is that between papa *Photocorynus spiniceps* and mama *Photocorynus spiniceps*. This species of angler fish lives in the great depths of the ocean. There, in the semi-darkness, it is conceivable that papa might be hard to find when mama wanted him. She has taken severe steps to see that this does not happen.

In effect, the male has been reduced to the status of a parasite, attached directly to the flesh of the female. The male gets all his nourishment directly from the female's bloodstream.

She must be pretty stingy with her blood, though. While she may grow to be 40 inches or longer, the male never gets much over four inches.

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GEOLOGY

Arctic Circle Mine

► IN THE frozen no-man's land of East Greenland, a Danish mining company is preparing to open a lead and zinc mine, 140 miles north of the Arctic circle.

The average annual temperature in this region is 16 degrees Fahrenheit, and winter storms often cover the land with 15 feet of snow. In spite of all obstacles, the mining company plans to open the mine by the spring of 1956. Preparations began in 1952.

A mining town, Mesters Vig, has been built near the site. The people who live there are the only inhabitants for hundreds of miles. The town was specially built, with a central plant to heat all the homes.

The water necessary for the mine's operation will be pumped through electrically heated pipes from a nearby river. Heated pipes are necessary because the ground stays permanently frozen for hundreds of feet below the surface.

Shipment by boat is blocked during ten months of the year because the coastal waters freeze over and, therefore, the mining company is building an air strip so that mail, supplies and spare parts could be landed.

Blasting into the side of the mountain to be mined will begin soon. In rooms cut out of the mountain in this way, the valuable concentrates will be separated from the rest of the ore. Natural insulation from the mountain plus heat from machinery

will keep the rooms at a fairly comfortable temperature.

The lead and zinc to be mined are in deposits of galena and sphalerite scattered through a vein of quartz.

Mining experts estimate that 20,000 tons of concentrates will be shipped from Mesters Vig each season after the mine opens.

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CYTOLOGY

Experiments Throw Light On Fungus Diseases

► THE IDEA that mushrooms, mildews, rusts and other fungi have little need for light has been contradicted by U. S. Department of Agriculture scientists. Many fungi, experiments showed, need light to start spore formation, the way in which fungi reproduce asexually.

This discovery may aid scientists in finding out how plants respond to light, a long-time puzzle.

Scientists have previously thought fungi did not need light because they had no chlorophyll, the green material that enables plants to use sunlight for growth. Now studies have shown that, although the fungi may not use sunlight for growth, their life processes are somehow accelerated or inhibited by light conditions.

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