

as *Polyporus rutilans*.

There are a number of polypore species, some of which are much more abundant than this, which is the only one that is of any use to Dr. Frank. So it is important to get a proper identification on a specimen that might be it.

The crucial test, says Dr. Frank, is

quite simple: moisten your specimen with a drop of ordinary household ammonia. If it turns purple, you have the right species.

Dr. Frank says he will welcome anything from a single specimen up to several pounds, and will gladly refund shipping charges.

Science News Letter, December 11, 1948

CHEMISTRY

New Plastic Insulator

► A NEW high-temperature, transparent plastic, that can be tempered somewhat as metals are hardened, is now in limited commercial production.

Made up of fluorine and chlorine to the extent of four-fifths of its weight, it is related to the new family of organic compounds, the fluorocarbons, which reached practical development during the war. Chemically it is trifluorochloroethylene.

Produced by M. W. Kellogg Co., of Jersey City, N. J., it came out of the laboratory of Dr. W. T. Miller of Cornell University.

Extremely resistant to chemical action, even to concentrated sulfuric, hydrofluoric and hydrochloric acids, it is nevertheless easily worked into shape. Although strong and hard, it is not brittle. Although suited to use at as high as 390 degrees Fahrenheit, it is also very satisfactory at very low temperatures, even at the cold of liquid nitrogen, 320 degrees Fahrenheit below zero. It is a good insulator for electricity and heat, and water rolls off it like the proverbial duck's back.

Because it withstands weather so well, it is likely to be used in instruments, air-plane and ship parts, railroad signals and electrical insulation that get hard outdoors usage. It can substitute for glass in laboratories and chemical plants and handle corrosive gases and liquids.

It will be used at low temperatures and for electrical insulation in corrosive or humid conditions. Because it is not wetted by water or humid atmosphere, one use will be to avoid electrical short circuits due to water film condensation.

Because the new plastic, called commercially Kel-F, can be treated or tempered very much as though it were steel, it can be tailored or processed for use at a predetermined temperature.

Comparing the trifluorochloroethylene chemical structure of the new plastic with its fluorocarbon cousins, some of the fluorine is replaced by chlorine. Fluorocarbons are similar to familiar hydrocarbons of petroleum, but all of their hydrogen is replaced by fluorine, making fluorocarbons more inert.

Science News Letter, December 11, 1948

MEDICINE

Stomach Cancer Detection

► HOPE of saving the estimated 40,000 fatal stomach cancer victims in the United States each year by mass X-ray surveys was knocked down with the words "impractical" and "impossible" in a report by two Mayo Clinic radiologists to the AMERICAN JOURNAL OF ROENTGENOLOGY AND RADIUM THERAPY (Nov.).

The radiologists making the gloomy report are Drs. B. R. Kirklin and John R. Hodgson. They stated:

"It would take 1,917.6 roentgenologists examining a stomach every two minutes for eight hours steadily every day of the year, including Sundays and holidays, year after year continuously, to make a satisfactory survey of this group of people (all those over 40 years old) every three months."

All persons over 40 years would have to be examined, they explained, because they estimate that 95% of all the stomach

cancers occur in persons in that above-40 age group. This group makes up about 30% of our population.

The survey must be made on each person in the group every three months, they stated, because stomach cancer can develop within that time. If done less often, the purpose for which the examinations are made, detection of the cancer in time to save the patient, will be defeated, they stated.

"We believe that one of the most important parts of the campaign against cancer is the continued education of the public to an awareness of cancer," they stated. "We believe that this should be augmented and that this alone will bring many patients to the physician in time. In any event the public must be educated before any attempt to survey is tried. They should especially know why they have to be examined every three months."

Science News Letter, December 11, 1948

MEDICINE

Ringworm Rated Most Common Skin Disease

► RINGWORM, the fungus infection of the scalp and body, is probably the commonest skin disease today, Dr. Everett C. Fox of Dallas reported to the American Medical Association meeting in St. Louis.

He based his report on records of more than a million cases.

Eczema and acne also rate high on his list of the 10 most frequent skin diseases. The other seven on the itchy list are:

1. seborrhea, a scaly skin disease caused by excessive discharge from certain skin glands; 2. contact dermatitis, caused by irritation of the skin from various chemicals or animal or plant life; 3. impetigo, the superficial infection caused by streptococcus or staphylococcus germs; 4. scabies, commonly known as the itch; 5. nettle rash, or hives; 6. psoriasis, a chronic inflammatory skin disease characterized by patches covered with white scales; 7. pityriasis rosea, an inflammatory disease marked by reddish spots and ring-shaped patches upon the body.

Science News Letter, December 11, 1948

ZOOLOGY

Beaching of Pilot Whales Still a Zoological Riddle

► ZOOLOGISTS have never been able to find the reason for the suicidal "follow-the-leader" tactics of the pilot whale or blackfish, which caused a school of 44 of them to beach themselves near St. Augustine, Fla. This peculiar behavior is shared by a related species, the false killer whale, stated Dr. Remington Kellogg of the U. S. National Museum.

There used to be a small rendering plant on Nantucket, to salvage the carcasses of pilot-whale schools coming ashore on the North Atlantic coast. Its owner, Howard Wardell, would send a fleet of trucks to pick up the luckless little whales. This plant has now closed down, due to scarcity of raw material.

Scottish fishermen on the Orkney islands, and Danes on the Faroes, still take advantage of these chance harvests, and even help to drive the animals ashore by pounding on cans and tubs held in the water.

Beached whales do not die as fish die. They are air-breathing mammals, depending on lungs, not gills. However, when their bulky bodies are not buoyed up in the water, their own weight crushes them down, making them unable to breathe. So they die of suffocation, as a man might if he lay on the ground with a heavy weight on his chest.

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The first American automobile powered with gasoline was the Duryea car built in Springfield, Mass., in 1893.