CONSERVATION

Standard Specifications For Telephone Poles

➤ TELEGRAPH, telephone and other wood poles will soon have to comply with standard specifications prepared under the leadership of the American Standards Association at the request of the government. The prime purpose of the job will be to conserve natural timber supplies, and secondly to channel the production and use of poles so that all users will have a fair share of the available timbers.

"War needs have depleted our timber supply to an extent that we do not yet fully realize," Dr. R. H. Colley of Bell Telephone Laboratories states. Civilian use of poles was cut in half during the war, leaving a big pent-up demand now that restrictions are removed. It is estimated that at least 4,000,000 poles a year during the next few years will be required.

The new specifications will cover wood poles from jack pine, red pine, western white pine, inland types of Douglas fir, western hemlock, western larch, and certain miscellaneous species. The specifications will aim at treatment of every pole with wood preservatives so that the poles will last as long as possible.

The specifications, also, will cover prohibited and permitted defects, such as sap stain, twist grain, insect damage, knots and scars. Such matters as manufacturing, dimensions, storage, and handling will be covered.

Science News Letter, September 29, 1945

NUTRITION

Skipping Breakfast Gives "All-Gone" Feeling

➤ AS THE season of dark, chilly mornings begins, many persons find it harder than ever to get up in time to eat a good breakfast before starting to work or school. Breakfast-skippers, however, are likely to have an "all-gone" feeling and to slow down at work or study before the morning is over. Going without breakfast, moreover, means that the remaining meals of the day must be quite large in order to make up the deficit in nourishment.

Those who are in the habit of going without breakfast may not feel hungry on arising, even though it is 12 or 14 hours since their last meal. The thought of food may induce distaste or even slight nausea. If you are in this class, you can acquire a good breakfast habit by gradual steps. Each morning eat a little more until you are eating a breakfast that furnishes one-third of the calories you need for the day's activities.

The lightest breakfast menu approved by nutrition authorities consists of fruit, cereal or bread and a beverage. This is considered satisfactory for a desk worker who eats an early lunch. It can be made more nourishing if the cereal or bread is whole grain, since then more body-building material and more B vitamins will be included in the meal.

Adding eggs, bacon or some other meat or fish increases the supply of body-building protein. A good breakfast also includes a glass of milk to supply calcium and the B vitamin called riboflavin. Without milk, it is hard to get enough of these nourishing items in breakfast or, for that matter, in the entire day's food.

Science News Letter, September 29, 1945

AERONAUTICS

Production Continues On Navy's Super Fighter

➤THE NAVY's newest carrier and land based fighter, the F2G, developed under great military secrecy, but completed too late to see action in the Pacific, will still be produced in limited numbers for Naval service.

Except for slight engineering changes in air intake ports, air-release gills, specially designed rudder and vertical tail stabilizer, its outward appearance closely follows that of the Chance-Vought F4U Corsair. Both planes are built by the Goodyear Aircraft Corporation.

Powered with a 28-cylinder Pratt-Whitney 3,000 horse-power radial engine, the F2G is said to have an initial rate of climb of 7,000 feet a minute, considerably greater than that of the latest jet-propelled planes in operation. Its range is 2,500 miles, and its maximum speed, with water injection, is 450 miles per hour at 16,500 feet. It is armed with six .50-caliber machine guns, eight rockets and two 1,000 pound bombs under the wings and provision has been made for substitution of additional rockets or drop fuel tanks for two half-ton bombs.

The original Vought Corsair, since early 1943 Navy's fastest carrier-based fighter, used by Marine Corps as well as Navy fighter pilots in the Pacific, maintained a high level of efficiency and stamina in combat as both fighter and fighter-bomber until the end of the war.

Science News Letter, September 29, 1945

IN SCIEN

BIOCHEMISTRY

New Germ-Stopper Found In Water-Chestnuts

➤ A NEW antibiotic, or germ-stopping substance resembling penicillin in its action, has been found by a group of four Chinese scientists in the small round tubers known as water-chestnuts and familiar to patrons of Chinese restaurants everywhere. The research team consists of S. L. Cheng, B. L. Cheng, W. K. Cheng and P. S. Tang, all of Tsing Hua University at Kunming. They report their results briefly in a letter to the editor of *Nature,* (Aug. 25).

Unlike penicillin, the newly discovered antibiotic is not soluble in organic solvents such as ether and benzene. It can be destroyed by moderate heating. War-caused lack of proper laboratory equipment has thus far prevented the workers from preparing it in purified form.

It has been given the name "puchiin," from the Chinese characters that stand for the plant from which it is derived. To botanists it is known as *Eleocharis tuberosa;* it is a member of the sedge family.

Science News Letter, September 29, 1945

CHEMISTRY

New Method Offered For Obtaining Sulfur

➤ SULFUR, one of the commonest and most useful of chemical elements, can be salvaged from foul-smelling hydrogen sulfide by a newly patented process developed by Minor C. K. Jones of Mountainside, N. J.

Hydrogen sulfide is a problem product of many industrial processes, such as oil refining and making coal gas. It is also present in quantities in some natural gases. It is poisonous, and besides, it smells like rotten eggs, so that nobody wants it around.

Mr. Jones' method is to put it with another sulfurous gas, sulfur dioxide, in the presence of a catalyst at high temperature and under pressure. The hydrogen from the one gas and the oxygen from the other combine to form water, and the sulfur from both comes out uncombined and in a high state of purity.

Rights in this patent are assigned to the Standard Oil Development company.

Science News Letter, September 29, 1945

CE FIELDS

GENERAL SCIENCE

President Urged to Prevent Drafting of Scientists

➤ YOUNG scientists, future key men in the creation of new job-providing industries, should not be drafted for routine duty in armies of occupation, *Chemical and Engineering News* declares editorially. The editorial calls upon President Truman to intervene to this end, and adds that "if he fails among his overwhelming responsibilities to visualize the seriousness of the situation, then Congress must, without further delay, assert its authority and control the military before well-considered plans for full employment are made largely valueless and the future of America is placed in jeopardy."

The journal calls attention to the present grave lack of trained scientists for research and teaching tasks, caused by the indiscriminate drafting of young men away from their laboratories and classrooms during the war emergency, and comments sharply on "the unwillingness of the Army to interpret intelligently the Selective Service Act." No emergency exists now that might give even the color of an excuse for a repetition of this blunder, it is pointed out. Instead, it is highly important that scientifically talented young men be encouraged and helped to complete their training without interruption, so that the present gap in America's ranks of researchers may be closed up as soon as possible.

Science News Letter, September 29, 1945

AERONAUTICS

Airliner Able to Circle Globe in 45 Hours

➤ AROUND the world in 45 hours—New York to London in nine, or to Mexico City in five hours—may soon be normal schedules for the Republic Rainbow, 40-passenger luxury airliner under development in Farmingdale, N. Y., by the Republic Aviation Corporation.

Believed to be the fastest transport plane ever conceived, the Rainbow's four radial engines will permit flight around or over the most inclement weather, carrying a crew of seven, 1,600 pounds of baggage and 1,700 pounds of cargo in addition to the 40 passengers.

Just as Republic's fighter, the Thunderbolt, was built to meet definite military requirements, the Rainbow is being especially designed and constructed after a careful survey of the needs of the airlines, and the postwar expectations of veteran air travelers. In addition to war-tested principles of superior construction, numerous exclusive innovations will assure reliability and safety. The noise-proof, pressurized cabin, finished in harmonious textures and colors, will feature complete dining facilities, lounge, bar, plane-to-ground telephone, motion pictures and fluorescent lighting, assuring complete comfort regardless of altitude.

Science News Letter, September 29, 1945

BOTANY

Dogwood Tree Bears Holly-Like Berries

See Front Cover

➤ A GREAT many people do not realize that the dogwood tree, so lovely in the spring, is also a striking sight in the fall. Red berries, four or six to a cluster, make a pleasing contrast to the dark green leaves. The photograph of the dogwood berries on the front cover of this SCIENCE NEWS LETTER was taken by Fremont Davis, Science Service staff photographer.

Science News Letter, September 29, 1945

HERPETOLOGY

Turtles Seldom Travel More Than 300 Yards

➤ TURTLES don't like to travel, at least Florida turtles don't.

They seldom go more than 300 yards, or less than one-fifth of a mile, from their original habitat. A turtle could easily cover this distance in a single day, states Lewis J. Marchand, University of Florida.

As many as 45 of these lazy travelers, 30 per cent of those found around Crystal Springs in Pasco County, whose tough shells Mr. Marchand marked with a hand-drill, were located during the following two years near this region.

Turtles released at Rainbow Run in Marion County, seemed more inclined to wander, several miles being not uncommon, Mr. Marchand reported to the American Society of Ichthyologists and Herpetologists. This sudden desire to travel, however, may have been largely due to the fact that a large number were released simultaneously at one spot, he states, although the character of the environment would also greatly influence the normal range of the turtles.

Science News Letter, September 29, 1945

CHEMISTRY

Metal Foils Keep Moisture from Walls

➤ ALUMINUM, copper and other metal foils may be used as a base for decorative wall finishes in future homes. New decorative finishes are being developed to replace conventional wallpaper because of the need to keep moisture in the room from seeping into the house walls, thus causing supporting timbers to rot.

Wallpaper applied with a vapor-resistant adhesive reduced 100-fold the amount of moisture vapor which passed through the wall, investigations at the National Bureau of Standards showed. Samples of the same wallpapers applied in the usual manner were found to allow about 38 ounces of moisture per square yard per day to pass through the wall. Wallpapers having a vapor-resistant coating on the face and applied in the usual manner likewise reduced 100-fold the amount of moisture vapor passing through.

So far, however, no vapor-resistant adhesive or coating has been found that does not disfigure wallpaper. Vapor-resistant plastic sheetings, though difficult to apply, were found quite satisfactory. Paint films and varnishes with and without metal powders were easy to apply, but gave variable results. Good aluminum, copper and other metal foils were in most cases impervious to moisture vapor.

Science News Letter, September 29, 1945

METALLURGY

Method for Recovering Magnesium from Scrap

➤ A METHOD for recovering magnesium from turnings, borings and other scrap in which it is mixed with other metals is the subject of patent 2,383,659, obtained by Y. E. Lebedeff of Metuchen, N. J., who has assigned his rights to the American Smelting and Refining Company. First a molten bath of a collector metal, like lead or zinc, is prepared. This is covered by a slag composed of a mixture of lead chloride or the like, mixed with common salt. The bath is heated to about 900 degrees Fahrenheit, and stirred vigorously, while the magnesium scrap is poured in. After about an hour of stirring, the slag will have collected practically all the impurities and can be skimmed off, leaving the magnesium behind.

Science News Letter, September 29, 1945