



The Yule Log Returns

► WITH FURNACE oil strictly rationed over a considerable part of the country, and the situation a bit uncertain even as to coal, many a neglected fireplace has been cleaned out and now supplements the more modern but underfed furnace in keeping the house warm. So the stage is all set for a return of the Yule log.

To be sure, in most present-day city and suburban homes the fireplace isn't big enough to accommodate a full-sized Yule log. Still, if the spirit is there the shorter bit of timber will flame and crackle with as much holiday cheer as if it were the whole bole of an oak tree in a baronial hall.

Yule-log burning isn't just something to be done on Christmas day only. The ancient, pre-Christian Yule celebration that signalled the passing of the shortest day was a prolonged affair, lasting as long as the meat and the ale held out. As Yule became Christmas, the festival season traditionally extended from Christmas eve to the Feast of the Epiphany, which comes on Jan. 6—the Twelfth Night of English Renaissance observation. So the Yule log had plenty of time, big as it used to be, to flame and flicker before the last of it had smoldered to ashes.

In the semi-baronial days of our own ante-bellum South, there was on many plantations an accepted unwritten rule that the black field hands need not labor outdoors as long as the Yule log was alight. The Negroes would take advantage of this by selecting the biggest and toughest gum-tree trunk they could find and sinking it under water for weeks beforehand, to make it as slow-burning as possible. Sometimes one of these nearly fireproof Yule logs would simmer away for a month.

Science News Letter, December 26, 1942

• New Machines and Gadgets •

⚙️ *PRODUCTION* of precision lenses, the "glass eyes" of gunsights, binoculars and other military instruments, has been greatly speeded by a diamond-impregnated grinding machine which automatically grinds curves or planes on glass. A wide range of curves can be ground with the device and from one to fifty lenses made in a single operation, depending on the size. The War Department is equipping certain plants with the device, it is reported.

Science News Letter, December 26, 1942

⚙️ *DRAUGHT* beer in some bars and restaurants is now coming to the ultimate consumer via pipelines of transparent plastic.

Science News Letter, December 26, 1942

⚙️ *LUMINOUS* bait for fishermen, molded of phosphorescent plastic, has recently been patented.

Science News Letter, December 26, 1942

⚙️ *TESTING* and breaking-in aircraft engines is done more efficiently by a new apparatus now being installed in plants. More accurate data and recordings are made by one man from a single control point, the manufacturers report, than by previous methods which required constant attention of at least two trained engineers and an assistant. A maze of wires and tubes connect the engine with testing devices which are remotely controlled by the test engineer sitting at his desk outside the test room.

Science News Letter, December 26, 1942

⚙️ *A STIRRUP PUMP* for incendiary bombs, made of wood with a plastic hose, not only saves metal but throws a jet of water more than 35 feet, which is claimed to be 25% farther than the performance of any metal pump on the market.

Science News Letter, December 26, 1942

⚙️ *INDUSTRIAL* gas masks protect the wearer against carbon monoxide and other insidious, odorless gases for about two hours at a time. Then a luminous dial warns the worker that the filter has been exhausted and needs a refill.

Science News Letter, December 26, 1942

⚙️ *SYNTHETIC* crockery now used by the Navy, is made of a melamine resin plastic, to avoid breakage when the guns are fired and the ship skids

sideways. The saucers are molded to allow a 30-degree roll before the cup overturns, and the soup plates are also adapted to a high sea. In addition to being lightweight and easily stacked, the new tableware is said to be highly stain-resistant and odorless.

Science News Letter, December 26, 1942

⚙️ *SMALL-FLAKE* mica, essential to the manufacture of electrical equipment for the armed forces, can be quickly sorted with a new process of electrostatic grading. Powdered mica is subjected to charges from a grid electrode, attracting the thinner particles and leaving the heavier ones.

Science News Letter, December 26, 1942

If you want more information on the new things described here, send a three-cent stamp to SCIENCE NEWS LETTER, 1719 N St., N. W., Washington, D. C., and ask for Gadget Bulletin 137.

ASTRONOMY

Harvard Astronomer Discovers New Comet

► A NEW comet has been discovered by Dr. Fred L. Whipple of Harvard Observatory. Dr. Whipple spotted it on a patrol camera plate taken at Harvard's Oak Ridge station on Dec. 7. It was located about six degrees south of Jupiter.

Once the comet was found, Dr. Whipple was able to detect it on 20 plates taken as far back as Nov. 1, but it does not appear on photographs taken during October.

The Whipple comet was later sighted by Prof. G. Van Biesbroeck of Yerkes Observatory, Williams Bay, Wis., and observations made on several nights show that the comet is approaching the sun, and thereby coming closer to the earth. On Nov. 17 the brightness of the comet was reported as 12th magnitude. On Nov. 29, the brightness had increased to the 11th magnitude. The comet itself was then diffuse with a central condensation or nucleus.

On Dec. 13 and 14 the brightness had increased to the 8th magnitude. This was still too faint to be seen with the unaided eye, although it could be spotted with a fair-sized telescope. The comet has developed a short tail with a length of 40 minutes of arc.

Science News Letter, December 26, 1942

Satisfactory paper can be made from nettles, British experience shows.