



RARE MUSHROOM DUPLICATED—This photograph shows a model of a species of *Morchella*, rare European mushroom, placed behind the round, pea-sized version grown in the laboratory at Syracuse University by a method similar to that used for penicillin.

MYCOLOGY

Grow Mushroom in Lab

► **LOVERS OF** good steak dinners can now enjoy a super-delicious mushroom, grown artificially in laboratories in four days.

Drs. C. C. Carpenter, Paul Klens and Chester F. Koda, working at Syracuse University, Syracuse, N. Y., are responsible for the new boon to gourmets. The mushroom is *Morchella hortensis*, long prized by European connoisseurs.

Much smaller than the familiar commercially grown mushroom, *Agaricus campestris*, freeze drying turns the rare *Morchella* into a seasoning that can be used on steaks, in soups and other dishes as salt and pepper is used.

Ordinarily when the spores in a mushroom cap unite, they start growing by sending out minute fibers. Months, or years later, stems and caps develop from the fibers.

The Syracuse scientists developed a method of by-passing the spore stage and growing the caps directly in glass tanks. This is similar to the way such antibiotics as penicillin are grown.

A tiny bit of the microorganism was put into a test tube containing nutrients. When it had grown sufficiently, it was transferred to a bottle in a machine that shook the solution 110 times a minute for four days. At the end of that time, about 25 to 30 pellets had been produced, the largest approximately one-third of an inch across.

These pellets were chopped up and the fragments poured into glass tanks with the nutrient medium. In four days, each of the fragments grew into a pea-sized mushroom ball, increasing the original number of edible pellets 10,000 to 1.

Whenever more mushrooms are wanted, a few balls are chopped up and put into the glass tanks. Four days later, the process is complete.

The discovery that a seasoning powder could be made by freeze drying the mushrooms came accidentally. Because of its size and fragility, the scientists believe the fast-growing mushroom will be used largely as seasoning.

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TECHNOLOGY

Corn Popper Cleans Hypodermic Needles

► **HOT OIL** in electric popcorn poppers is good for cleaning hypodermic needles after injections. The method is "probably the most effective" for softening and loosening dried blood and medicines that often plug the needles and are hard to get out, the Hospital Bureau of Standards and Supplies, New York, reports.

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ARCHAEOLOGY

Find Artists' Tools of New Stone Age Culture

► **ARTISTIC TOOLS** used by a previously unknown people who lived in the Old Stone Age just after the days of Neanderthal Man were among the finds made in Shanidar Cave in northern Iraq by Dr. Ralph S. Solecki of the Smithsonian Institution.

First report of this new people was contained in a letter from Dr. Solecki to his colleagues at the Smithsonian. He has named the people the "Baradost Culture," after the mountain in which the cave is located. Evidence of the people was found in the same cave in which Dr. Solecki found the bones of a 75,000-year-old baby last summer. The Baradost people lived some time after the Old Stone Age child.

Very little is known of the Baradost people, but they left behind specimens of a stone industry. Among the stone implements are a high proportion of well-made flint burins, or gravers, which were probably used to carve artistic designs on stone or bone objects. There is also an abundance of notched flint flakes and blades that probably served as knives.

Evidence was found that they lived through at least two severe earthquakes, such as those that shook the islands of Greece last summer. Large blocks of stone were shaken from the cave's roof at that time.

Shanidar Cave was recently visited by Dr. Dorothy A. E. Garrod, eminent archaeologist formerly of Cambridge University, England. Dr. Garrod, who has herself made excavations nearby in Iraq, confirmed Dr. Solecki's estimate of the age of his finds.

She also regards the Baradost Culture as something previously completely unknown, but she says that it fills a gap between two other cultures previously known in Iraq, the Zarzi and the Hazer Merd cultures.

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ASTRONOMY

Periodic Comet's Return Spotted in Western Sky

► **THE FIRST** observation of periodic comet Honda, originally discovered in 1948, has been made by Dr. George Van Biesbroeck at McDonald Observatory, Mount Locke, Texas.

Report of its rediscovery was telegraphed to observatories throughout the country by Harvard College Observatory, Cambridge, Mass., clearing house for astronomical information in the Western Hemisphere, so that other astronomers can search low in the western sky for it.

The comet was in the constellation of Aquarius, the water carrier, when it was rediscovered. Too faint to be seen without a telescope, the diffuse object is of tenth magnitude and was spotted at 8:59 p.m. on Feb. 3.

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