

production of energy of the white dwarfs to contraction. That is, the energy released as the outer parts fall to the center is converted into heat. Proposed nearly a century ago, a similar theory was once given in explanation of stellar energy in general, but it was shown that it would not provide energy for the times over which the stars seem to have been in existence. Dr. Marshak says that it would suffice to keep the white dwarfs going for 100,000,000 years at least, and after that

they will probably become dark objects. Dr. H. A. Bethe, of Cornell University, whose theory of the hydrogen-helium transmutation as the source of most stellar energy is now generally accepted, addressed the meeting as well. Dr. George Gamow, of George Washington University, who presided, spoke on his theory that stellar explosions are due to particles called neutrinos, which have no mass.

Science News Letter, May 10, 1941

ARCHAEOLOGY

Takes "1,000-to-1 Chance" Of Finding Oldest Virginians

Smithsonian Scientist Will Explore Remnant of Site Left From Excavation for Four-Lane Skyline Drive

ON a "1,000-to-1 chance" of striking important revelations of the first—literally first—families of Virginia, Dr. Frank H. H. Roberts, Jr., of the Smithsonian Institution, is preparing to make archaeological excavations beside Virginia's famous Skyline Drive near Bedford.

Since discovery there recently of ancient Folsom Man's typical stone dart points, the Virginia Mountain site has been a question-mark spot for popular and scientific interest. Will it, or will it not, reveal as much information about Ice Age Southerners as Dr. Roberts has learned about Ice Age Westerners from digging in the Lindenmeier site, where Folsom Man camped in Colorado, 20,000 years ago?

Possibility that Indian souvenir-hunters of the twelfth or thirteenth century A. D. may unwittingly have given modern science a false steer on Folsom Man's presence at the site is cautiously seen by Dr. Roberts.

"The two Folsom dart points were

found in debris of a prehistoric camping ground," he explains. "This may mean that Folsom hunters who reached Virginia camped or worked there 10,000 years, or more, in the past. While Folsom Man's presence in Virginia has been previously detected from such points, they have been found on the surface of the ground. None of his Virginia campgrounds have been examined, which might reveal the sort of food he ate, his other kinds of stone and bone tools, and other evidence of his life in Eastern America. Most important of all would be discovery of skeletal remains, for Folsom Man's appearance is unknown.

"Prehistoric America, however, had its souvenir hunters and antique collectors, and it is possible that the campground was occupied by Virginia Indians of comparatively recent times—recent compared to Folsom Man's era—and one of them may have brought home and kept an old Folsom point.

"In the Southwest, we find traces of Indian collectors frequently. An Indian

● RADIO

John L. Collyer, president of the B. F. Goodrich Company, and Dr. Howard E. Fritz, manager of the company's synthetic division, will discuss synthetic rubber and rubber-like materials as a means of conserving supplies of imported natural rubber vitally needed for defense as guest scientists on "Adventures in Science," with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Thursday, May 15, 3:45 p.m. EDST, 2:45 EST, 1:45 CST, 12:45 MST, 11:45 a.m. PST. Listen in on your local station. Listen in each Thursday.

pot may be unearthed full of odd objects that the owner previously collected and treasured."

To find out which of these solutions is correct, Dr. Roberts will have only a remnant of the original site to explore. Highway excavations for the four-lane Skyline Drive cut through the old site, removing 95% of it. It was during the digging that workmen first observed Indian objects. Dr. David I. Bushnell, Jr., Smithsonian Institution archaeologist called to the site, recognized its significance for American prehistory.

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METALLURGY

Patented Process May Aid Production of Magnesium

THREE new methods for the more rapid purification of magnesium, essential defense metal which, because of its lightness, is used in airplane construction, were revealed in four patents just granted by the U. S. Patent Office. Thomas H. McConica, III, of Midland, Mich., is the principal inventor, though Charles E. Nelson and Thomas Griswold are named in two as co-patentees.

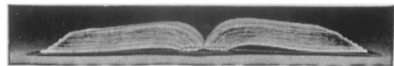
In purifying magnesium from its ores, it is obtained as a vapor, mixed with carbon monoxide, the vapor being condensed to form the solid metal. When first produced, the vapors are hot, and, unless quickly cooled, there is a chemical reaction to form a magnesium compound

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