

ECONOMICS

In Sudeten, Germany Would Add to Raw Material Needs

Disputed Section Holds Important Industrial Plants But Depends for Food on Other Parts of Czech Nation

NAZI GERMANY, by incorporating within her borders the Sudeten area of Czechoslovakia, would add to her industrial plant heavy Sudeten industries of strategic importance but would at the same time render more acute her need for food and raw material imports, information supplied by the Bureau of Foreign and Domestic Commerce indicated.

Principal prize would be the world-renowned Skoda munitions works, providing they are not dismantled or destroyed by angered Czechs before the territory is finally surrendered.

The Sudeten area is also noted as one of the important European textile centers. Other manufactures include a wide variety of light consumers' goods such as toys, novelties, imitation jewelry, glassware and porcelain.

The famous Czech shoe industry is not centered in the Sudeten area.

But since no raw materials to speak of are produced in this mountainous area, Germany would have to make addi-

tional imports or produce additional "ersatz" materials in order to keep the busy Sudeten factories running.

Further, the market for many of these products might be cut. For example, the anti-Nazi boycott in the United States, which has reached effective proportions, would doubtless be extended to include Nazi Sudeten products. Instead of the label, "Made in Czechoslovakia" they would have to bear the marking "Made in Germany."

Food for the four million inhabitants of the region is imported from nearby agricultural areas of Czechoslovakia, as not enough food for the four million is grown in Sudetenland. But with the Sudeten area made German an economic barrier would separate the Sudetens from their food supply.

A similar situation holds with regard to raw materials for the great Skoda works. Some iron is produced in Czechoslovakia, but that comes from the Slovakian districts.

Annexation of Sudetenland therefore

recalls German "anschluss" with Austria six months ago, when the Reich added within her borders a country that was an important industrial nation but was dependent upon the outside world for food supplies. Since provision of such foods as fats has been a pressing German problem for several years, and self-sufficiency in other food-stuffs has been attainable only with extreme difficulty, Nazi worries in this respect are increased.

Most of the textile plants in the Sudeten area are for making real, not synthetic fibers. Hence they are even now dependent upon foreign sources for raw materials such as cotton and wool. Nazi economists working under General Goering, administrator of Germany's economy, may expect difficulty in providing these plants with the necessary raw-stuffs. Foreign exchange for purchasing these supplies has until now not been a serious problem for the Czechs who have found a ready market for their goods. But it is a serious matter to Nazi Germany.

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ARCHAEOLOGY

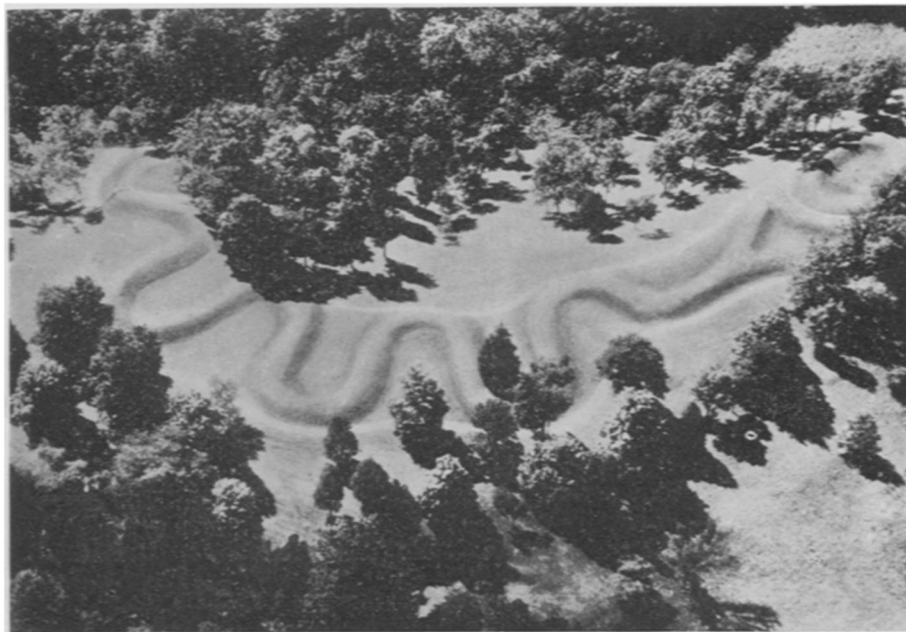
Ancient American Wonder Gains Tourist Fame

AMERICANS are discovering one of the wonders of ancient America—the Great Serpent Mound in southern Ohio.

The mound is not new to archaeologists, nor to a good many other people, especially mid-westerners. But visiting it has been made "convenient and pleasant" by aid of an \$80,000 WPA and Ohio State project, and discovery on a large scale has begun. Some 100,000 roving Americans this summer have taken in the earthen curiosity, which one archaeologist informally calls "a good old antique." From now on, the Great Serpent is expected to become a standard sight.

The first white man who discovered the mound did not find it particularly convenient or pleasant. Who he was, nobody seems to know any longer. But word got around his neighborhood that over in the woods by the river was a queer winding bank of earth, probably something wild Indians built for defense.

Then came the archaeological team of Squier and Davis, studying Indian remains. One good look told them what the earthwork represented. It was a snake symbol, cleverly modeled in raised earth to wind along the high cliff by the river. Dimensions of the creature call for Hollywoodian adjectives. It is four



GREAT SERPENT MOUND

An air view of this archaeological site now available to tourists.

or five feet high, and its coils are 1,254 feet long. The open jaws are 61 and 56 feet respectively in length, and in their 75-foot gap lies an oval mound of earth like a big egg about to be swallowed. The egg was probably an altar, for on it the Indians left burnt stones.

Mound building Indians of the mid-west built a good many effigies resembling men, birds and beasts. But the Great Serpent is a prehistoric masterpiece.

Ever since 1886, when Harvard University's president was dismayed to find a cornfield waving among the Serpent's coils, the earthen monument has been protected, restored. The Ohio State Archaeological and Historical Society has owned the land since 1900.

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PUBLIC HEALTH

Thousands Amid Food Plenty Suffer From Malnutrition

THERE ARE thousands of Americans who live in a land of food plenty and yet suffer from hunger. This is not a story about economics and how badly we distribute our agricultural products. It is a story of hidden hunger, the diseases of malnutrition. It is an ABC story because it is about vitamins.

The best estimates or guesses as to the prevalence of nutrition diseases can not be backed up by figures because, except for pellagra in some southern states, the deficiency diseases are not reportable. Yet people die of them.

Prize medical story in this regard comes from one of the largest of New England cities. A woman was found dead at the bottom of a staircase in a not-too-well-off residence. She was covered with what appeared to be livid bruises. Naturally the husband was taken into custody by the police. He might have been tried for murder, except that a keen-eyed coroner-physician, performing the autopsy, rendered a verdict that set him free. The woman had died of acute scurvy, the symptoms of which made her appear to have been badly beaten. Scurvy is caused by a lack of vitamin C contained typically in citrus fruits.

Lack of vitamin A causes a form of night blindness, sometimes involved in auto accidents. This vitamin is contained in butter. When during the World War, no butter was available and skim milk was used widely in some Scandinavia areas because butter could be sold at such high prices, eyes of some children were permanently injured.

Rickets is widely found in rich and poor children alike, despite all the cod-liver oil and vitamin D extracts sold and administered.

All the pellagrins, those who do not get the P-P factor that prevents pellagra, are not in the southern states. It is found in northern areas and large cities

ASTRONOMY

New Exploding Star Theory Traces Evolution of Growth

Stars Grow Old by Getting Hotter and Brighter Then Contracting; At Turning Point They May Flare

A NEW theory of evolution for "exploding" stars called novae by astronomers, is suggested by Prof. George Gamow, of George Washington University (*Physical Review*, Sept. 15).

Stars grow old, Prof. Gamow's hypothesis suggests, by gradually burning up their hydrogen and getting hotter and brighter. A source of nuclear energy within the star causes this first stage.

Next point in the star's evolution is a progressive contraction in which the star's radiation comes from gravitational energy only. However, at the turning point between hydrogen-burning and the gravitation contraction, the star's mass must redistribute itself.

During this redistribution of mass, gravitational energy is liberated which shows up, suggests Prof. Gamow, as a short-time additional brightness. It is this brightness, he adds, which may well be the cause of the bright flare-up of the so-called "nova" stars.

What happens to the star, after contraction sets in, depends on its mass when the contraction starts. For small stars less than 3.2 times as large as the sun the contraction leads to the well-known type known as the white dwarfs which have "a degenerated electron gas inside and very small energy production."

For the larger stars, however, the contraction creates a central neutron core inside the star which represents "a practically unlimited source of energy." The growth of such a neutron core will bring about an increase in the amount of energy liberated and probably makes the star's atmosphere expand. In this state it may enter the star class known as the giants.

Finally the explosion of such giant

where lack of money, alcoholism, or idiosyncrasies of diet prevent eating proper protective food.

Beri-beri is occasionally found in America. Its cause, which is lack of vitamin B one, is also blamed for neuritis frequently associated with other diseases in this country.

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stars will lead to extremely bright novae which might be identified as the supernovae; a class suggested by Prof. Fritz Zwicky of the California Institute of Technology and Dr. Walter Baade of Mt. Wilson Observatory.

Astronomers could check the new hypothesis, Prof. Gamow suggests, by seeing if the spectrum of the star known as Nova Corona belongs to the M giant class of stars.

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FOR FUTURE EYES

This lady's hat in the mode of 1938 is designed to excite comment fifty centuries from now when the time capsule is excavated by archaeologists of that day. It is one of a number of articles in common use included in this "cross-section of civilization" which also contained more than 10,000,000 words and a thousand pictures on microfilm.