Danish physicist, was the first who expressed doubts concerning the validity of the principle of conservation of energy in subatomic phenomena.

At the recent meeting of the British Association in York and again at a physicists' conference in Leningrad, leading scientists discussed this momentous question.

"If we ignore the limitations placed upon us by the unnecessary conservation law, we are led to very interesting developments not only in the case of nuclear phenomena but also when dealing with the origin of solar energy," Dr. G. Gamow, young Russian physicist of the physical institute of the Academy of Sciences of Leningrad, said in an interview.

"The heart of a star," continued Dr. Gamow, "may be likened to one large atomic nucleus, a few inches or a few miles in diameter. Like the nucleus of the atom this central portion of the star can give off energy continuously, without thereby having its own store of energy or matter reduced. At the same time the star's central core, by breaking up into particles of different size, gives rise to the nuclei of all known elements. I am at present engaged in calculating upon a probability basis the relative abundance of the different elements originating in the central portion of the star. The final proportion of elements which should be present in a star depends upon other factors as well, for instance upon the lesser stability of the nuclei of the lighter elements under the bombardment of high velocity protons.

Science News Letter, December 17, 1932

DENTISTRY

Irregular Teeth To Be Subject of Research

IRREGULARITIES of the teeth are to be the subject of special research at Columbia University. This condition is scientifically known as malocclusion. A common form is seen in people with buck teeth. Malocclusion is found in all races and at all levels of society. Confusing theories as to its cause and results are held by both dentists and physicians, and even the present methods of treatment are unsatisfactory. Investigation of the subject at Columbia will be under the direction of Dr. Milo B. Hellman who has just been appointed professor of dentistry at the University.

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THE "THUNDER-BEAST" OF THE ANCIENT WEST

There were giants on the earth in the earlier days of the Age of Mammals, when streams of animal migration met and crossed on the Bering land bridge between the New World and the Old. Some of them were so weird and unwieldy that paleontologists have been put to it to find appropriate names for them. They have hit it off pretty well, however, in the case of the Titanotheres, "Titan-beasts," one of which, a Brontotherium, or "thunder-beast," is here shown as it appears in a restoration-drawing made for the Smithsonian Institution Series, based on a skeleton in the U. S. National Museum.

PUBLIC HEALTH

Hard Times Disease Routed Even During Depression

DEATHS from pellagra, "hard times" disease, have unexpectedly decreased enormously during the present depression. Vegetable gardens and yeast seem to have effectually routed the former specter of economic depressions.

These two factors, together with education in pellagra-preventive measures, seem to have reduced the pellagra death-rate by about one-third in the face of the country's worst depression, it was shown in a discussion of the subject by Dr. William DeKleine of the American Red Cross at the meeting of the Florida Public Health Association at Ocala.

Dr. Joseph Goldberger of the U. S. Public Health Service showed before his death that pellagra is caused by lack of a certain factor in the diet. This factor is now called vitamin G. It is found in fresh vegetables, in lean meat and abundantly in dried yeast.

When the great flood of 1927 devastated large portions of the Mississippi Valley, the American Red Cross undertook to apply Dr. Goldberger's findings. Dried yeast was distributed on a large scale. The residents of the area were encouraged to start home vegetable gardens, and more than 120,000 packages of seeds were distributed in 1927 and 1928. This action reintroduced gardening in many sections of the flood area where the farmers had previously depended on a cash crop, buying their own food at the stores and commissaries. Under this system, when the cash crop failed, they were unable to buy adequate food and having raised none themselves, fell victims to the hard-times disease, pellagra, Dr. DeKleine reasoned.

The introduction of the gardening in the flood areas was continued in other Southern states until 1932. In addition, housewives were shown how to can and preserve the garden foods for winter use. Dr. DeKleine believes it is this gardening and canning, in addition to the distribution of yeast and other health foods by the Red Cross and other relief agencies, which have caused the drop in pellagra deaths despite the depression.

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