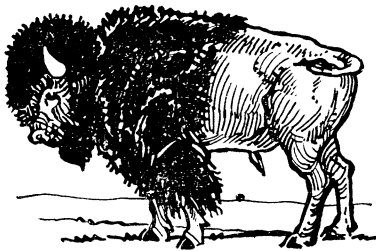




ZOOLOGY



Early Americans

WHENEVER you spend a nickel you pass over the counter a little medallion commemorating two bred-in-the-bone Americans; on one side an Indian and on the other a buffalo, or more strictly speaking, a bison. It is highly appropriate that these two Early Americans should be thus recognized on what is the most thoroughly American of coins—though it is rather a pity that their images could not have been on the more colorful bronze.

The bison should not be called a buffalo, for that name by right belongs to the smooth-hided, long-horned beasts of the warmer parts of the Old World, from the Cape buffalo of South Africa to the carabao of the Philippines. But the bison has been so named for so long, and the name so fixed by the immense vogue of that old frontiersman and showman of a former generation. Buffalo Bill, that it is unlikely that the error will ever be corrected.

Although the bison is so thoroughly American he was, like many other Americans, even the American Indians, an immigrant from the Old World. The great Eurasian continent was the original home of both bison and Indian, and they came here by the same route, the old land bridge that once united Asia and Alaska.

Until the World War there used to be a few hundred survivors of the Old World bison species, mainly in the Baltic region and in the Caucasus mountains. In classic times and during the middle ages the European bison, or wisent, was very common. But even the few survivors were wiped out during the war and the revolutionary disturbances that followed, so that now there are only about a few score wisent left alive.

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MEDICINE

Lack of Vitamin Balance Seen as Cause of Pellagra

PELLAGRA, sometimes known as the "hard times" disease of the Southern states, is caused not so much by too little vitamin B₂ (or vitamin G) in the diet as by a combination of too little of this vitamin with too much of vitamin B₁. Experiments showing this to be the case have been reported to *Science* by Dr. Walter H. Eddy and his associate, Minerva Kellogg, of Teachers College, Columbia University.

From these experiments may come a settlement of the lively and long-continued controversy among scientists as to the cause of pellagra.

The late Dr. Joseph Goldberger of the U. S. Public Health Service showed that pellagra was due to inadequate diet and that feeding yeast or other substances rich in vitamin B₂ cured the condition. However, not all scientists agreed with his theory that the disease was caused by lack of this factor.

Yellow Corn Eaters Diseased

Chief argument against the Goldberger theory was the fact that there is a great deal of pellagra occurring among people living on maize or yellow corn. Until the Goldberger investigations, the disease was regarded as a food poisoning and attributed to the use of maize or Indian corn as food.

The suggestion leading to the Eddy-Kellogg experiments was apparently first made by the distinguished English

biochemist, Prof. E. Mellanby. His investigations into poisonous factors in cereals led him to suggest that maize may contain a poison which may be the cause of pellagra but may be prevented from exercising its pellagra-producing capacity by the presence of a protective agent in the nature of a vitamin or possibly two vitamins, B₂ and A.

Tested on Animals

Dr. Eddy and Miss Kellogg fed animals in one series diets containing a constant, normal amount of vitamin B₁, with the amount of B₂ varied from sub-minimal to high. In another series, they fed the animals a diet in which the amount of B₂ was constant and normal, while the amount of B₁ varied from sub-minimal to high. They found that when the B₂ (also known as vitamin G and the pellagra-preventing factor) was low or subminimal and the B₁ (found in maize and other cereals) was adequate or high, pellagra developed more uniformly in practically all cases.

"These experiments would explain the appearance of pellagra on a diet of maize or any other of the whole cereals," the Columbia investigators reported. "They are rich in B₁ and low in B₂, and a continuous diet of such cereals supplemented with other foods containing little or no B₂ would produce pellagra if compatible with the theory."

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