

CHEMISTRY

Silica Black Is New Product Of Many Possible Uses

BLACK COAL and white earth mix to produce something blacker than the original coal. It is called "silica black" by its discoverer, Prof. C. A. Jacobson of the University of West Virginia, and it is expected to find many industrial uses, all the way from paint pigment to an absorbing agent for soaking up fumes and moisture. Prof. Jacobson described his product at the meeting of the American Chemical Society in Denver.

Silica black is made by reducing coal to an extremely fine powder and mixing it intimately with some form of silica which has also been reduced to pulverized form. In most of his experiments Prof. Jacobson used diatomaceous earth.

The mixture is heated in a closed vessel from which air is excluded, the temperature being raised to 600 degrees Fahrenheit or above. Considerable gas and some other products are driven off. The solid silica black that is left is a powder as fine as the original ingredients, and much blacker than the original coal.

Silica black, Prof. Jacobson said, appears not to be a simple chemical compound nor even a uniform mixture. It seems to consist in part of carbon and silica clinging very tightly to each other, in the physical bond known as "adsorption," rather than as a true chemical union.

But whatever its chemical nature may be, silica black has possible industrial

properties that Prof. Jacobson has found it very interesting to investigate.

The most promising use seems to be as a paint pigment. The blackness of the black is highly permanent, and the fineness of the particles make for good dispersion through the paint medium. It has a high attraction for oil, which again is an advantage in some kinds of paint use. It is also highly resistant to acids and other chemicals, which suggests a usefulness for laboratory table tops and other furniture subject to the severest kind of abuse.

Other suggested uses are as an ingredient in shoe polish, insecticide, leather tint, wood grainer, drying agent, and fume absorbent.

Science News Letter, August 27, 1932

ANTHROPOLOGY

Negroes Grow Lighter, But Color Will Never Be Uniform

NEGROES in America are becoming lighter in color, as a race, but a considerable range in duskiness of skin will always be found among them. These are among the results of a study of assortative mating for color among Negroes made by Dr. Irene Barnes Taeuber of Mt. Holyoke College and presented before the Third International Congress of Eugenics.

Little new white blood is now entering the Negro racial mixture in America, Dr. Taeuber stated. Nevertheless the

race as a whole is growing lighter, due to crossings with the lighter-colored stock already in existence. The unmixed Negroes are a dwindling group: their percentage among parents at present is 29, as against only 14 per cent. of pure-blooded Negroes among the offspring.

"The American Negro population of the future will probably be more homogeneous as to ancestry," said Dr. Taeuber; "There will be a smaller percentage of unmixed Negroes, a larger percentage with half or more Negro ancestry, and a smaller percentage who pass as Negroes but have more white than Negro ancestry. The segregation process operative in the inheritance of pigmentation will prevent the development of a population of one uniform hue."

Science News Letter, August 27, 1932

PALEONTOLOGY

Ice Age Rhinoceros Displayed in Museum

THE MOUNTED skin of a woolly rhinoceros, that ranged the swamps and plains of Poland during the Ice Age, has been placed on display in the Museum of Physiography of the Polish Academy of Sciences at Cracow. It is complete and lifelike, in spite of its hundred thousand years or more of antiquity. The only defect is the absence of the thick wool and long hair with which it was once clothed, so that it now resembles in its nakedness the modern rhinoceroses of Africa and Asia.

The animal was discovered buried in a silty deposit in the region of Starunia about three years ago. With the exception of its internal organs, it had been preserved through the centuries by the crude oil and salt with which the silt was impregnated. After a great deal of difficulty, the ponderous carcass was removed from the earth through a special shaft and transported to Cracow for skinning, dissection and study. A plaster model was constructed over which to stretch the skin.

The bones, which were pretty badly shattered, were reassembled and mounted separately. Regrettably, the skull was especially badly broken in the rough tumbling the animal had received after its death, presumably by drowning in a swollen-post-glacial river.

Associated with the carcass were many plant remains, indicating the existence of a tundra-like vegetation, dominated by dwarf birches and willows, during the lifetime of the rhinoceros.

Science News Letter, August 27, 1932



PICKLED IN OIL SINCE THE ICE AGE