frey) and others discussed by Kerner, and I greatly appreciate having my attention called anew to such an authoritative support of my thesis as is given by Kerner.

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### ALBINISM IN THE BLACK BEAR

Several notes on albinism in wild animals and birds have been published in Science. An interesting reference to albinism in the bear is given in a rather rare work upon the adventures of John Tanner during his thirty years' residence among the Indians.[1] While living on the Assinneboin River he had the following experience:

> Shortly after this, I killed an old she bear, which was perfectly white. She had four cubs, one white, with red eyes, and red nails, like herself; one red [brown?], and two black. In size, and other respects she was the same as the common black bear, but she had nothing black about her except the skin of the lips. The fur of this kind is very fine, but not so highly valued by the traders as the red. The old one was very tame, and I killed her without difficulty; two of the young I shot in the hole, and two escaped into a tree. I had but just shot them, when there came along three men, attracted, probably, by the sound of my gun. As these men were very hungry, I took them home with me, fed them, and gave each of them a piece of meat to carry home.

An interesting feature of this case is the fact that one of the young also was albinistic. Had albinism been a recessive trait, the albinistic mother could hardly have produced albinistic young unless mated to an albinistic individual or to another individual carrying albinism recessive. This latter supposition indicates prior cross and persistence of albinism in the same locality.

It is interesting to note the high fertility of this albinistic individual.

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[1] A narrative of the captivity and adventures of John Tanner (U. S. interpreter at the Saut de Ste. Marie), during thirty years residence among the Indians in the interior of North America, prepared for the press by Edwin James, New York, 1830, page 131.

### BECHHOLD'S "CAPILLARY PHENOMENON" IN AGRICULTURE

H. Bechhold recently observed[1] the interesting capillary phenomenon that when a porous mass (such as a lump of earth or a block of plaster of Paris) is soaked in the solution of a salt and then dried, the salt collects almost quantitatively at or near the exterior surfaces. W. Kraus[2] has shown that this transfer of the salt is dependent upon evaporation at the exposed surfaces.

The above observations seem to me to give the scientific reason for the well-recognized value of cultivation or tilth in agriculture.

When the surface of the soil is stirred or broken up by a cultivator, hoe, or rake, besides killing weeds and "hilling up" the plants, a greater total surface is exposed to evaporation, and evaporation is therefore facilitated. The sub-surface water in rising, brings with it towards the roots, soluble substances which serve as plant food, though of course selective adsorption and differential diffusion effect some segregation. This capillary rise of water also accounts for the curious fact well known to farmers, that in dry weather cultivation will to a considerable extent furnish moisture to the growing crop.

Jerome Alexander

Ridgefield, Conn.,
June 21, 1921

[1] *Kolloid Zeitschrift*, 27, 229 (1920).

[2] *Kolloid Zeitschrift*, 28, 161 (1921).

## QUOTATIONS

### THE ROYAL INSTITUTION

In these days of grandiose state expenditure and trifling result, the history of the Royal Institution seems almost miraculous. It has occupied its present quarters in Albemarle-street since 1799, when it was founded by a few fellows of the Royal Society, of whom the American, Count Rumford, also founder of the Smithsonian Institution at Washington, provided the initial funds. Its purpose was severely practical—to "diffuse knowledge of useful mechanical improvements," to "teach the application of science to the useful purposes of life." But its wise governors soon found that teaching tends to be barren if it is divorced from research, and its laboratories, at