

Nitrocellulose for the Manufacture of Artificial Leather.—W. K. TUCKER (*Jour. Ind. and Eng. Chem.*, 1921, xiii, 623-624) states that nitrocellulose for use in the manufacture of artificial leather should have a nitrogen content between 11.5 per cent. and 13 per cent., with an average of 12 per cent. Its ash content should not exceed 0.4 per cent. The nitrocellulose is applied to the cloth base as a solution. The chief solvents used are ethyl acetate and acetone oil which is a mixture of methylethylketone with smaller amounts of acetone and related compounds. The solvent is usually diluted with either benzene from coal tar or benzine from petroleum. The amount of actual solvent in a solution rarely exceeds 30 per cent. and may be as low as 10 per cent. The solution is usually prepared so that its viscosity is approximately 40 seconds, *i.e.*, about 40 seconds are required for a steel ball five-sixteenths of an inch in diameter to drop through a column of the solution 10 inches high. The solution preferably should have a temperature of 25° C. during this test.
J. S. H.

Thermal Decomposition of Oil Shales.—RALPH H. MCKEE and E. E. LYDER, of Columbia University (*Jour. Ind. and Eng. Chem.*, 1921, xiii, 613-618), have studied the changes which occur during the destructive distillation of oil shales. They find that petroleum oils are not a primary product of the process. The pyro-bitumens of the shale first are converted into a heavy solid or semi-solid bitumen; this change takes place at a quite definite temperature, thus it occurred between 400° and 410° C. in the Colorado oil shale used in the experiments. The petroleum oils are then formed by the cracking or cleavage of this heavy bitumen.
J. S. H.

Discoloration in Canned Sweet Potatoes.—EDWARD F. KOHMAN, of the Research Laboratory of the National Canners Association (*Jour. Ind. and Eng. Chem.*, 1921, xiii, 634-635), finds that the black discoloration in canned sweet potatoes is due to a reaction between a tannin-like substance in the sweet potatoes and ferric salts derived from the iron of the can. Since access of oxygen is prerequisite for the formation of ferric salts, cans with tight seams are essential in the canning of this product.
J. S. H.

Death of Lady Brewster.—Lady Brewster, the second wife of Sir David Brewster, died recently at the age of ninety-four. She was married to Sir David in 1857, when he was seventy-six and she about thirty. A daughter was born to them a few years later. Brewster died in 1868. He was one of the most distinguished physicists of his time, his work being especially in optics. He constructed the first lens stereoscope and perfected the kaleidoscope. He also made many important researches in polarized light and devised important improvements in the British lighthouse system.
H. L.