the HCN. The tests must be made on the grass immediately after cutting, as the HCn was generally absent after the grass was wilted.

Effects of alfalfa on the sulphur content of the soil in comparison with grain crops: C. O. Swanson and W. L. Latshaw. Samples were taken from 86 fields and analyzed for sulphur. The plan was to select fields which had been in alfalfa for a long time, twenty to thirty years. Near these fields were found soils of the same type which were in native sod or had been cropped to grain since broken, about forty years. On the basis of annual rainfall the state of Kansas may be divided into three sections: humid, where the rainfall is 30 inches or more; the subhumid, where the rainfall is less than 30 inches but more than 22; the semi-arid, where the rainfall is less than 22 inches. In the humid section the average per cent. of sulphur was: alfalfa soil, 0.029; virgin sod, 0.035; cropped soil, 0.027. In the sub-humid section: alfalfa soil, 0.043; virgin sod, 0.045; cropped soil, 0.041. In the semi-arid section: alfalfa soil, 0.035; virgin sod, 0.038; cropped soil, 0.027. The growing of crops has decreased the sulphur content of the soil, using the virgin sod as the basis of comparison: Alfalfa, 16.5 per cent.; grain, 20 per cent. This is for the humid section. For the sub-humid section the losses are: alfalfa, 4.7 per cent.; grain, 9.3 per cent.; for the semi-arid section the losses are: alfalfa, 7.4 per cent.; grain, 30 per cent. The sulphur content of the soil is approximately the same as that of phosphorus. Chemical analyses of these soils do not show any appreciable loss of total phosphorus, while the loss of sulphur is next to nitrogen and carbon in magnitude.

The preservation of fish frozen in chilled brine: (I.) *The penetration of salt:* L. H. Almy and E. Field. Several species of fish were frozen by immersion in sodium chloride solutions of different concentrations and temperatures and for varying periods of time. Salt penetrated the skin and superficial tissue under all experimental conditions. Freezing of fish in brine at the temperature near which ice begins to separate from the solution did not prevent the penetration of salt. Though it was possible to detect penetrated salt by chemical means, the amount of salt absorbed was not sufficient to influence the taste of the cooked product. A study is being made of the relative keeping of fish frozen in air and in brine.

Research on hypnotics: E. H. Volwiler. The most commonly used hypnotics at the present time are barbital, formerly known as veronal, luminal, adalin, diallylbarbituric acid and several others. Of these compounds, barbital is by far the most commonly used and is manufactured in this country in very large amounts. Recently some research has been carried on by The Abbott Laboratories, which is the principal manufacturer of barbital, to produce a better hypnotic. Among others, dibutyl barbituric acid and benzyl-ethyl barbituric acid have been prepared. Di-butyl barbituric acid shows promise of being valuable, its toxicity being somewhat less than that of barbital and several objectionable side effects being eliminated.

Wood alcohol and prohibition: Charles Baskerville. Wood methyl alcohol poisoning is a unique problem in that it involves not alone physiological changes and technical matters having to do with production and distribution of the toxic agent, but sociological factors as well, for it is closely knit to prohibition. The pure substance so closely resembles ethyl hydroxide that it requires an expert chemist to determine the difference. As ethyl hydroxide was the constituent of the quondam beverages, the name without the qualifying words is liable to be misleading to those not informed. In view of that, and numerous other factors, it is urged that the name "methyl hydroxide" or "methanol" be applied to wood alcohol, and the name "ethyl hydroxide" or "ethanol" be applied to the so-called grain alcohol in an effort to render the use of the word *alcohol* itself obsolete. This can not be accomplished by legislation or immediately, but by common agreement in usage, especially in the chemical and pharmaceutical professions.

Charles L. Parsons,
Secretary

(To be continued)

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