NOTES FROM THE U. S. BUREAU OF CHEMISTRY.*

THE EFFECT OF SOME DECOLORIZING CARBONS UPON THE COLOR AND COLLOIDS OF CANE SUGAR.¹

By Joseph F. Brewster and William G. Raines, Jr.

[ABSTRACT.]

SUGAR cane juice in 3000-pound lots was clarified by sulphur-lime treatment and by kieselguhr-decolorizing-carbon filtration. In general, more colloidal matter is removed by treatment with kieselguhr alone than with sulphur dioxide and lime. The sulphur dioxide and lime treatment removes very little, if any, coloring matter, while the various carbons used showed different decolorizing power and different ability to remove colloids. The amount of total colloidal material present appears to affect the decolorization by carbons.

THE EFFECT OF VARYING HYDROGEN ION CONCENTRATION UPON THE DECOLORIZATION OF CANE JUICE WITH CARBON.²

By Joseph F. Brewster and William G. Raines, Jr.

[ABSTRACT.]

COMPARATIVE decolorization of sugar cane juice at varying hydrogen ion concentrations was determined by adjusting the reaction of the juice by the addition of acid or alkali, treating with decolorizing carbon, boiling, and filtering. The color remaining in the samples was then read with the aid of the Hess-Ives tint photometer and the color units obtained. Determinations were made at p_H values ranging from 8 to 4. In general, best decolorization is obtained at $p_H = 4$. At this acidity, however, inversion is rapid, and it is doubtful whether much advantage is to be gained in practice by working at such acidity. It would be necessary to maintain careful control.

* Communicated by the Acting Chief of the Bureau.

¹ Published in *J. Ind. Eng. Chem.* (1921), 13: 921.

² Published in *J. Ind. Eng. Chem.* (1921), 13: 1043.