A study of the tabulated melting points again shows the value of the melting point as a criterion of purity. Of the alcohols, only methyl and ethyl alcohol give a melting point and appear to be pure substances. All the others examined only set to a vaseline-like pasty mass, and are probably mixtures of the various isomers. The derivatives, such as the esters, are obviously purer, and the alkyl iodides appear to be still more readily obtainable in the pure state. Probably pure alcohols suitable for melting point determinations, could be obtained from their iodides. The melting points of $C_2H_5O.H$, $C_2H_5.O.C_2H_5$, and $C_2H_5.Br$ are practically identical $= -117.6°$. From the first two identities it appears as if H and C_2H_5 had the same effect on the melting point. Hence if $C_2H_5.Br = -117.6°$, HBr should be $-117.6°$. The melting point as given by a different experimenter $= -120°$, a sufficiently striking coincidence.

An experiment was made to see what amount of another substance prevented total crystallization, and it was found that pure ethyl alcohol to which 2 per cent. of isobutyl alcohol had been added, only crystallized partially, the remainder setting to a hard transparent glass in which crystalline nuclei were interspersed.

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NOTE.

The Determination of Aldehydes and Furfural in Whiskey.—In a paper on this subject in this Journal (28, 1611) by Tolman & Prescot, Tolman (p. 1628) says: "Schidrowitz does not use the distillate for this determination (*i. e., of the aldehydes*) but clarifies with basic lead acetate, etc. . . . but this method, while it is applicable to pure whiskies light in color, cannot be applied to whiskies that are colored with caramel, as caramel is not removed by lead acetate"; and on page 1629 refers in a similar manner to my estimation of furfural.

It might be inferred from this that I invariably use the lead acetate clarification method, and that I am not aware of its limitations, but as a matter of fact, in the paper of mine to which Tolman refers[1], I made the following remarks:

(a) "At the same time it became apparent that the statements of Carles and others . . . to the effect that cask-colored spirits may be completely decolorized by means of lead acetate . . . are not correct. They certainly lose rather more color than spirits artificially colored with caramel . . . ."

(b) "*The Coloration of the Control Solution:* For this purpose caramel was not found to be practicable, as the reagent exerts a specific influence on this coloring matter."

[1] The Chemistry of Whiskey I. J. Soc. Chem. Ind., June, 1902.

I may add that I find the lead acetate process useful when a very rapid estimation has to be made in commercial whiskies concerning which there is no question of caramel coloration, but that, as a general rule, I employ the distillation process. It was by means of the latter that the series of figures relating to aldehydes and furfural in *The Chemistry of Whiskey, Part II.*,[1] by Kaye and the author were obtained.

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REVIEW.

ABSTRACTS FROM CURRENT LITERATURE UPON INDUSTRIAL CHEMISTRY.

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In the present article, the same general scheme has been followed as in previous Reviews by the writer. But attention has been confined more closely than heretofore, to articles appearing in foreign journals. Since the more important Patents, at least, that are issued abroad, are generally re-issued in this country, it has seemed unnecessary, with a few exceptions, to include them here, as they will appear in the Abstract of Patents in connection with the *Review of American Chemical Research.* In the interest of brevity, some selection of subjects has been exercised, and only those which seemed of most general interest are included.

Technological Education:—The final report of the Departmental Committee appointed to examine the working of the Royal College of Science and School of Mines of Great Britain, was published in Feb., 1906, and reprinted in the *J. Chem. Ind.*, **25**, (1906), 203. This embraces conclusions and recommendations embodied in some forty-two articles. It is concluded that advanced technological education must be provided; that such opportunity is not now fully available to students, owing to lack of facilities, absence of co-ordination among the several technological institutions of the country, whereby advanced courses could not be given in a few of them; and finally, that employers do not yet fully appreciate the value of such education for their employees. Opportunities for research in technological lines are inadequate. It is proposed to found at South Kensington, an Institution with staff and equipment which will attract advanced students. The body of the report is devoted to ways and means to give effect to this proposal. The scheme would include the work of the Royal College of Science, the Royal School of Mines, the Central Technical College, and additional departments to be established, wherein the highest specialized instruction and fullest equipment for advanced training and research in science, especially as applied to industry, would be given. The relation of this Institution to the University of London occupies a large part of the report, and the idea is advanced that the ulti-

[1] J. Soc. Chem. Ind., June, 1905.