

I have to recommend this report to your attentive perusal, but I must also point out several of the results of it as worthy of special notice, and make some general remarks regarding each class of liquor described, with the view of arriving at proper definitions and legal standards for each, without which the administration of the Adulteration Act, so far as regards distilled liquors, will be impossible. For the various statements made and figures given I might give the authority, but I do not consider it necessary to burden this report with too many quotations.

*Brandy.*—The 24 samples varied in alcohol contents from 59·16 to 33·40 per cent by volume, or from 3·63 per cent over proof to 41·47 per cent under proof. Brandy imported in wood is usually understood by the trade to be 4 o. p. ; in bottle it is commonly 15 u. p. This is equal to 85 per cent of proof spirit, or 48·54 per cent by volume of alcohol. Exactly one-half of the samples are below this limit, and their vendors would have been liable to prosecution had it been legally established as the lowest saleable percentage. On the other hand, if the English lowest limit of 25 u. p., or 75 per cent proof spirit, or 42·84 per cent by volume of alcohol, had been legalized in this country, then there would have been only three cases for prosecution, or 12·5 per cent of the samples collected. With reference to the amount of extract, “total solids,” “dry substance” or, as it is called in the tables, “fixed matter dried at 100° C.,” it is usually supposed that a brandy, being a distillate, should not contain more dry substance than it is capable of dissolving from the cask in which it is stored. According to Clifford Richardson, strong whiskey (with 43 per cent alcohol) after six months’ storage in casks shows 0·0337 per cent of dry substance. This is the average of 8 samples, and the amount, after storage for four or five years, does not exceed 0·2 per cent. According to X. Rocques, (Bull. chim. 50, 157 ; 1888) the extract in 3 samples of genuine cognac (Chateau des Andreaux, Charente,) were as follows :—

Cognac, 1875 .....	1·30	grammes per litre.
do 1848 .....	3·30	do
do 1836 .....	4·90	do

Assuming 2 grammes per litre as the maximum extract in a genuine, 8 year old, cognac, it follows that only 3 out of the 24 samples examined came up to this standard, and it becomes plain that what are usually considered the best qualities of brandy receive artificial additions for colouring or other purposes after distillation. Among these probably the least harmful are small quantities of syrup, the use of which is admitted by the manufacturers. Nevertheless, the German government has decided that cognacs containing it are not pure, and can only be imported on payment of a higher rate of duty. Additions are no doubt also frequent of alcohol which has not been produced from wine or grapes. It is notorious that large quantities of high-strength German spirit are imported into France for mixing with brandy, and even for making artificial imitations of it. Statistics show that the average total production of cognac by the Charente Departments does not amount to one-tenth of the quantity exported by France to foreign countries. It would, therefore, be unjust to regard all imported brandies as genuine, or as, in every case, very much better than the domestic product, some of which, as their vendors naively state, are “blended by themselves with rye whiskey.” These vendors might very fairly maintain that their rye whiskey made from grain is superior to the German spirit made from potatoes. It does not seem that any of the samples examined are produced exclusively from high-grade alcohol. This conclusion is based on the results of the tests for opalescence in the distillate and for furfural. It would not be wise, however, to place too much reliance upon the presence of the latter substance and of volatile oil or ether, because it would be an easy thing for manufacturers to add these if it became a matter of importance to them to render the detection of the adulteration impossible. In passing judgment upon the 24 samples examined it is very evident that none of them come up to the old or popular definition of brandy, namely, “ardent spirits distilled from wine without any subsequent addition.” If this definition cannot be upheld, then a new one becomes necessary before the public analysts can give any reliable opinion as regards adulteration. The Select Committee of the