

Scotch Whiskies.—These whiskies claim, I believe, to be produced by distillation of malted grain, or a mixture of malted and unmalted grain, in pot-stills. They are characterized when new by the very large amount of so-called “empyreumatic oils” which they contain. The new or raw spirit, being quite unfit for use, is aged in wooden vessels, and in the course of time, through the changes which take place, the oils are oxidized or otherwise converted into products which give the characteristic bouquet or flavour to these whiskies.

Of the 22 samples analyzed, 7 are case liquors and 13 draught liquors. In two instances I am uncertain whether the samples are from draught or not. Nine samples claim to be imported. The highest content in alcohol (62·30 per cent volume) is found in samples that do not claim to be imported. The lowest alcohol content is found in one (No. 10691), which claims to be imported as a case liquor, made by Thom & Cameron, of Glasgow. The only other sample claiming to be made by Thom & Cameron (No. 10701) gives very different results on analysis. In only 5 samples does the alcohol (volume) fall below 45 per cent, and 3 of these claim to be imported liquors. All of the samples give the furfural reaction, but in ten only is it distinct. Of these, three claim to be imported. It would appear, therefore, that much of what is sold as imported Scotch whiskey is greatly diluted with patent-still spirit.

The solid residue found in these whiskies varies from 1·7 (No. 10269) to 0·280 (No. 9389) grammes per litre. It is remarkable that the solids found in this class of liquors bear a less constant ratio to the difference between original and spirit gravity than in brandy or rye whiskey. This may be to some extent due to the nature of the residue, which, at least in the genuine samples, is not a foreign addition to the liquor. The artificial sample was made as follows :—

Alcohol (about 10 below proof)	1,600cc.
Scotch whiskey essence	1cc.
Glycerine	5cc.

It is not a good imitation of the genuine article.

Irish Whiskey.—This is supposed to be, to a large extent, a pot-still product from malt and grain. Of the ten samples analyzed, only 2 fell below 45 per cent (volume) of alcohol. The highest percentage is 50·14 and the lowest is 33·22. Four of the samples fail to give any opalescence on diluting the distillate, and 3 of these claim to be imported, including No. 10249, which contains the highest spirit percentage found. All give the furfural reaction, and 7 give it distinctly. There is something very abnormal about No. 9980. The total solids found is entirely exceptional, and the spirit strength is at the same time very low. The artificial sample referred to was made as follows :—

Alcohol (about 10 below proof)	1,600cc.
Irish whiskey essence	1cc.
Glycerine	5cc.

It is not a good imitation of the genuine Irish whiskies.

White Whiskey.—Under this heading I have tabulated samples sold under the name white whiskey, together with such samples of whiskey as were not specified as “rye,” “Scotch,” “Irish” or “Bourbon.” Many were sold simply as “whiskey,” others as “malt whiskey.” The total number is 33. Two samples are included which would more correctly, judging from the results of analysis, have come under other headings. These are serial numbers 21 and 22, the first of which is undoubtedly intended for a “rye” whiskey and the second for a “Scotch whiskey.” These whiskies exhibit a very great disparity in alcohol strength, varying from 49·96 per cent. (volume) in No. 7, to 26·48 per cent. in No. 33. There can be little doubt that many of them, in the very low solids they contain and the total absence of any characteristic flavour, show that they are merely made by reducing grain (or silent) spirit by addition of water. Where the solids amount to a few tenths of a gramme per litre they may be introduced in solution in the water used for dilution. None of the samples (except 10254) give any opalescence on dilution, or any reaction for furfural.