

No. I.
RESULTS OF ANALYSIS OF VINEGARS.

No.	Variety.	Specific Gravity at 60° Fahr.	Solid Matters.	Acetic Acid monohydrated.	Sulphuric Acid.	Hydrochloric Acid.
			Per cent.	Per cent.	Per cent.	Per cent.
1	Common Brown Vinegar	1·0092	·89	6·72	·010	Traces.
2	" "	1·0087	1·10	6·54	·041	"
3	" "	1·0135	·97	9·15	·046	"
4	" "	1·0141	1·04	9·24	·006	·23
5	White Vinegar	1·0062	Traces.	4·91	Traces.	·23

Isinglass.—One sample of isinglass I found pure ; it was not branded.
A sample of Nelson patent isinglass gave 28·44 per cent. of water, and 1·78 per cent. of white ash.
As pure isinglass gives but ·90 per cent., and gelatine 4 per cent., it appears, at the best, this sample is made up as follows :—

Isinglass	...	...	...	...	...	71·61
Gelatine	...	...	...	...	...	28·39
						100·

This was, however, a good strong article, and is in good repute, though much inferior to the pure isinglass.

Mustard.—In all, seven samples of this have been examined, five of which were adulterated, the presence of turmeric being plainly evidenced to chemical tests. Other adulterants were not sought for, as they would be certain to be present, the turmeric being added, no doubt, to cover and supply the colorific deficiency of other adulterants. These samples were not branded, but were supplied from bulk.

The remaining samples (2) were found pure ; they are Colman's and Keene's respectively, and were purchased in pound tins, with brand attached.

As to weight : Keene's sample was stated to be in ¼-lb. weight, to which the net weight of mustard nearly approximated. Colman's mustard had no weight attached, but was sold for a pound tin. In these as in other cases, where only one or two samples were weighed, I could not make any general deduction from them.

Sauces.—Anchovy sauce, with Crosse and Blackwell's brand, was ascertained to be free from anything of a noxious nature, and to be of very good quality ; it was further determined that the amount of ferruginous matter present is not more than that which they announce as being used in the preparation of this sauce for the purpose of communicating to it an inviting appearance. The same can be said of their anchovy paste.

Harvey's sauce (J. T. Morton) also appears of excellent quality ; and the same appears true in the case of Worcester sauce—at least, nothing could be found in either of these substances of a deleterious nature. This last sauce has Lea and Perrin's name attached.

Sugar.—Our principal varieties of sugar have been examined, and the result shown that they are quite free from anything of a noxious character. The only impurities which could be found were portions of bagging, as also of sugar-cane, together with a little dust and grape sugar. With the exception of the last article, I found nothing but which might have got admixed with them in the process of their manufacture, and altogether the amount of such was exceedingly small. In regard, however, to the grape sugar, I frequently found this high. It is certainly an impurity, but whether it is an adulteration depends perhaps upon whether it is added for this purpose.

The following results are the highest I have obtained for the several qualities of sugar there cited :—

				Water.	Grape Sugar or Glucose.
Brown	...	...	...	2·86	4·57
Crystallized	...	...	...	0·89	8·70
Crushed Loaf	...	...	...	0·31	3·87

It should be stated all our commercial sugars have been ascertained to contain traces or more of this substance (grape sugar). As the presence of this sugar in quantity may indicate the use of starch in manufacture of these sugars, it may be advisable to go further into this matter.

Candles.—Only two brands of candles have been examined, both of which are of English make, the only ones I can find for sale here of foreign manufacture ; these are Brandon's best Neva Stearine and Price's. They have been tested photometrically, with results as given below, and from which it will be perceived Brandon's possess a little more illuminating power—weight for weight—and also for