

would follow the matter up and give a subsequent communication setting up something like a definite practical scale.

Mr. Tait said, taking the analogy of music, a novice could play a scale on a piano, but it would be destitute of that quality which would be imparted to it by a highly trained pianist. The same was even more noticeable in the production of a vocal scale. In the same way they might draw up a scale of flavors according to the science of flavoring, but the art of flavoring was something more that could only be reached by training and experience.

Mr. Crombie, in replying, said it was difficult to draw up a scale, and, certainly they would have to begin with some of the elementary odors. In the case of a preparation like cod-liver oil emulsion they might have two classes of flavors, the ethereal odor being the first perceptible, and some heavier odor towards the last, so as to mask the flavor of the cod-liver oil. With regard to distinguishing perfumes by swallowing them, it had been stated that the nostrils could be filled full of such a thing as eau de Cologne without perceiving any odor, but if air bubbles were admitted the odor was immediately perceptible. This seemed to suggest that in order to produce the sense of smell the substance must be in a gaseous or suspended form. Flavoring was very frequently completely overdone, and he thought that in this country we were much behind. The Americans excelled in giving just that amount necessary and no more. In preparations such as cod-liver oil emulsion he sometimes found as much as a drachm of oil of almond or oil of cinnamon to a gallon of emulsion, which was quite excessive. Six drops to the gallon was ample for flavoring purposes. Recently he had been asked by a hairdresser to supply him with something possessing the distinctive odor of a hair preparation. At first he was puzzled, and then imagined that he had tasted the same odor. On reflection, he remembered that his impression was associated with some liquorice pastilles which he had tasted, and, when tasting, had perceived the odor. Syrup of orange was quite insufficient as a flavoring agent for covering the taste of quinine. They required something very much heavier, such as liquorice. In regard to taking Gregory's Powder, it was well known that by simply holding the nose a person would find the swallowing of Gregory's Powder quite an easy matter.

## THE INFLUENCE OF HYDROGEN PEROXIDE ON THE AROMATIC COMPONENTS OF MOUTH-WASHES.

(Notes from the Laboratory of E. Sachsse & Co., Leipzig.)

As hydrogen peroxide has, besides disinfecting, very vigorous oxidizing propensities, it is obvious that it has a deteriorating influence on all essential oils, etc., which have easily oxidizable constituents, such as alcohols, aldehydes, etc.

It is, therefore, of importance to every manufacturer of dental and similar preparations to know which essential oils and other aromatic products are influenced by hydrogen peroxide, and which remain unchanged.

The table below will show this.

The hydrogen peroxide solutions used were made as follows: 0.05 oz. aromatic substance (essential oil or chemical) were mixed with 40 ozs. alcohol 55 over-proof, 30 ozs. water, and 25 ozs. of a 12 percent solution of hydrogen peroxide. These mixtures were left two months in stoppered brown bottles, and then compared with similar freshly-prepared mixtures.

<i>The Aromatic Substance Employed.</i>	<i>Remarks on the Taste and Character of the Solutions after two months.</i>
Oil of almonds freed of prussic acid	Turned entirely to benzoic acid
Anethol	
Oil of aniseed tsf. "Sachsse"	Unchanged
Oil of star aniseed tsf. "Sachsse"	
Bornylacetate	Unchanged
Carvacrol	Weaker than the fresh solution
Cinnamic aldehyde	Entirely oxidized, insipid taste, not a trace of cinnamon flavor left
Oil of cloves tsf. "Sachsse"	Slightly changed—the taste of the fresh solution is more agreeable.
Eugenol	Unchanged, only slightly weaker
Oil of caraway seed tsf. "Sachsse"	
Carvol	

Oil of cognac	}	Unchanged
Oil of cognac tsf. "Sachsse"		
Eucalyptol	}	Unchanged
Oil of eucalyptus tsf. "Sachsse"		
Geraniol		Greatly changed, taste insipid and fusty
Oil of geranium Spanish tsf. "Sachsse"		Slightly weaker, otherwise unchanged
Oil of lemon		Greatly changed, taste insipid, soapy
Oil of lemon tsf. "Sachsse"		Weaker, and has lost the true lemon character
Oil of marasquino		Weaker, but otherwise not much changed
Menthol		Greatly changed, the refreshing flavor of menthol disappears entirely
Menthylacetate		Greatly changed, the refreshing flavor of menthol disappears entirely
Oil of neroli	}	Weaker, but otherwise unchanged
Oil of neroli tsf. "Sachsse"		
Oil of orange, bitter	}	Slightly weaker, but otherwise unchanged
Oil of orange tsf., bitter. "Sachsse"		
Oil of orange, sweet		
Oil of orange, tsf., sweet. "Sachsse"		
Oil of peppermint (all qualities)		Falls off entirely
Oil of pine (all qualities, tsf. "Sachsse")		Unchanged
Terpineol		Slightly weaker, but otherwise unchanged
Thymol		Entirely changed; sour flavor
Vanillin		Unchanged

The preceding results prove that hydrogen peroxide—

(1) Destroys entirely the flavor of oil of almonds, cinnamic aldehyde, geraniol, oil of lemon natural and tsf., menthol, menthylacetate, oils of peppermint, vanillin.

(2) Weakens the flavor of carvacrol, oil of cloves tsf., eugenol, oil of caraways tsf., carvol, oil of cognac natural and tsf., oil of geranium Spanish tsf., oil of marasquino, oil of neroli natural and tsf., oils of orange bitter and sweet natural and tsf., terpineol.

(3) Has no influence whatever on the flavor of anethol, oil of aniseed tsf., oil of star aniseed, tsf., bornylacetate, eucalyptol, oil of eucalyptus, tsf., oils of pine tsf., thymol.

FROM "THE PERFUMERY AND ESSENTIAL OIL RECORD."

### SOME OF THE BEAUTIES OF PHARMACY.

WILLIAM C. ALPERS, SC. D.

It has always been one of the greatest pleasures of my life to spend an hour among students. I like the atmosphere of the school room. There is something animating and refreshing about it. I feel tonight like a wanderer who had lost his way and suddenly sees his home in the distance, and I therefore consider it a great privilege to be with you and address a few words to you. If there were anybody in this world whom I might envy his position it is the teacher. I do not know of any occupation that is more apt to elevate than that of teaching, because there is the continuous influence from the young, the continuous emanation of the youthful spirit, the continuous contact with all that is impulsive, beautiful, cheerful, and ideal. The ardent desire of my own life to be a teacher and live among the young and remain young with them has not met with fulfill-

\*Address delivered before the Students' Chemical Club, Princeton University, April 25, 1912.