

Besides these, a solution of some coloring matter should be always handy for imparting tints to gargles, mouth washes, glycerine applications and the numerous other preparations that so constantly recur at the dispensing counter, requiring some slight color, either for aesthetic reasons or to form a distinction between it and a similar colorless preparation, with which it might otherwise be confused. Of the coloring matters most suitable for the purpose, cochineal and carmine have the merit of having stood the test of time, and formulae for the preparation of suitable solutions can be got from any formula; fuchsine hydrochloride has more recently come into use and has proved very convenient, the salt, being soluble in water, forming a permanent solution, which imparts a very fine tint.

(To be continued.)

The Preparation of Good Eau-de-Cologne.

Apothecary Leop. Tomesanyi states that the chief condition to the achievement of a perfect preparation is prolonged storage. According to him, the production of this world-famous article at its original home in Cologne is carried on in the simplest manner. The ethereal oils are first mixed with the wine spirits, and this mixture, after two months' digestion, is distilled at gentle heat. The preparation is then placed in kegs and removed to the cellar, where it lies five or six years, and only then is placed on the market.

The original recipe of the so-called Springbrunn water, with the peculiar odor recalling that of orange peel, according to the author, is as follows:

R	Ol. aurant. cort.	} a a	30.0
	Ol. citri cort.		
	Ol. bergamot		12.0
	Ol. neroli bigarad.		1.0
	Ol. neroli petal.		2.0
	Ol. Rosmarini		4.0
	Spir. vin. rectificatiss.		

Another water sold, which has an odor more resembling that of orange blossoms, has the following formula:

R	Ol. aurant. cort.	26.0
	Ol. citri cort.	34.0
	Ol. bergamot	
	Ol. aurant. flor.	14.0
	Ol. rosmarini	
	Spir. vin. rectificatiss.	8000.0

The apothecary, who usually produces smaller quantities of eau-de-Cologne for his own purposes, is denied the opportunity of storing it for many years. He must, therefore, depend upon the excellent quality of the ethereal oils and the purity of the alcohol. In the preparation of eau-de-Cologne, it is best to employ two kinds of spirit—ordinary wine spirit and corn brandy. Of the ethereal oils, mixed in accordance with the proper formula, one part is dissolved in 1,000 parts of corn brandy, the remainder in 3,000 grains spir. vin. rectificatiss. The mixtures are set aside for several days in separate vessels in a cool place, then poured together and distilled.

Distillation may be avoided in the pro-

duction of small quantities. In lieu thereof, the mixture is kept warm for several minutes in a glass vessel corked with cotton and immersed in water at 60 C. It should, of course, be added that the fine quality of the preparation can only be secured through distillation.

Artificial "ageing" that is, the obtaining of the finest flavoring through long storing, is achieved in a peculiar manner, and, when carefully performed, the resulting eau-de-Cologne is, according to the author, quite equal to the genuine and long-stored article. The process consists in filling a glass bottle, provided with a perforated stopper, with the distilled water. Into the stopper introduce a spiral glass tube with narrow opening, and the bottle, inverted, is then placed in the ring of a retort stand, and underneath it is placed a bottle of a similar size with a funnel to receive the eau-de-Cologne, which trickles down drop by drop. The entire apparatus is exposed to the sun during the forenoon. When the liquid has passed from the upper to the lower bottle, reverse the bottles and repeat the operation four or five times. The forenoon sun exerts the best action, because it does not develop such excessive heat. The spiral form of the glass tube is highly important, because the liquid flows through it much more slowly, and remains longer exposed to the action of the sun.

This method can be advantageously employed in all cases where the "ageing" of a liquid is desired. The addition of spirits of sal ammoniac, recommended in many formulae for eau-de-Cologne, for achieving the characteristic effect of long storing, is not wise, since the spirits of sal ammoniac produce decomposition of many ethereal oils.—*American Soap Journal*.

Analysis of Coal-Tar Preparations.

Messrs. Helbing and Passmore's latest investigation is on the valuation of disinfectants prepared from coal-tar. In their report they state that, since the bactericidal properties of these preparations reside in the phenoloid bodies contained therein, the chemical estimation of such bodies is a measure of their activity, so that a bacteriological examination becomes unnecessary. Tar-oils contain certain acids (so-called), bases, and hydro-carbons which are more or less present in preparations made from them. A method of chemical analysis applicable to the one is, therefore, suited to the other within certain limits, which are laid down in the report. For determining the hydrocarbons (benzene, anthracene, naphthalene, and the like) the acids in 50 grammes or more of the oils are fixed and removed with a 10 per cent. caustic-soda solution, the oils having first been diluted with an equal volume or more of ether. The ether dissolves the hydrocarbons and bases, and the small quantity of the latter, washed out by the soda, is also removed with ether from the alkaline liquors. The combined ethereal liquids are next washed with 1-to-4 sul-

phuric acid to remove bases, after which the ether is treated by washing and evaporation for hydrocarbons. By fractional distillation the character of these may be studied and the bases may be estimated in the acid liquid by neutralizing with soda, evaporating to dryness, and extracting with spirit, whereby only the salts of the organic bases are dissolved out. The acid constituents of tar-oils are phenol and its homologues. Strictly they are not acids, but they associate themselves readily with the soda in the preliminary treatment, and are to be sought for in the alkaline liquors. The process which Helbing and Passmore suggest for this is simple—viz., to acidify with sulphuric acid and extract the "acids" with ether, which on evaporation yields a residue of the phenoloid bodies. It is impossible, the authors say, to separate carbolic acid from its homologues by practical distillation, owing to the close proximity of their boiling points, and the only method which they found practicable was to fractionally precipitate the alkaline solution of tar-acids with small quantities of mineral acid, whereby the carbolic acid is concentrated in the first fraction. So working they were able to satisfy themselves that Jeyes' fluid contains less than 0.25 per cent. of carbolic acid, and 40 per cent. of other phenoloid bodies.—*Chemist and Druggist*.

Physicians and Proprietaries.

The advances in both medicine and pharmacy "in this evening of the nineteenth century," have been so great and widely divergent in character of work, that your modern physician has, as a rule, neither the time, inclination or opportunity to learn technical pharmacy. Yet we fear that the trend of medical study at present is too much in the opposite direction, and that little attention is paid by many medical men to general pharmaceutical details; else why this tendency among the medical element to follow the direction of the least resistance in prescribing secret proprietary remedies instead of formulating original prescriptions? But whether this belief be well founded or not, the fact remains that the increasing use of such preparations by physicians is unquestioned and the query naturally comes up: "What is the best course for pharmacists to pursue? There is only one way. Accept the condition which confronts them and prepare a full line of proprietaries for physicians' use, the composition of which shall be absolutely non-secret. This is meeting the issue direct, and in such a contest—a contest with secret medicines made by parties unknown to the local physicians on the one side, and with non-secret medicines made by a pharmacist personally known to the local physician on the other—the pharmacist has every advantage; and every element of business sense urges him to do this. Will he do it?—*Alumni Reporter*.

When business is good the heart is full of happiness, and the face a genial smile.