

REVIEW OF CURRENT PHARMACEUTICAL LITERATURE.*

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The following abstracts are intended to give, in as brief a form as possible, the literature of the month having a practical bearing, direct or indirect, upon the subject of pharmacy and allied sciences. No attempt has been made to consider articles written from the purely academic standpoint, although a number of such articles, most of them excellent in character, are scattered throughout the journals for the month:—

JOURNAL OF INDUSTRIAL AND ENGINEERING CHEMISTRY.

The Determination of Mercuric Iodide in Tablets.—The difficulties in the way of estimating mercuric iodide in tablets are outlined and a method is proposed, based upon the oxidation of organic matter and solution of the mercuric compound by digestion with an acidulated solution of potassium chlorate under a reflux condenser. The final determination is made by precipitation of the mercury as mercuric sulphide. The results range within 3 or 4 percent. of the correct figures in known samples.—A. W. Bender, Sept., 1914, p. 753.

Estimation of Antipyrin.—A very satisfactory method for the quantitative determination of antipyrin, based upon its absorptive power for iodine, is proposed, which is satisfactory in the presence of phenacetin, acetanilid or sulfonal, and which, in known mixtures, enabled recoveries within 1% of the correct amount to be made.—W. O. Emery and S. Palkin, Sept., 1914, p. 751.

The Ferric Alum Estimation of Casein.—The authors compare the Kjeldahl nitrogen-determination method of estimating casein, with a method based upon the reaction and precipitation which occurs when milk is mixed with a standard solution of ferric alum, the excess of the latter being determined by the well-known iodometric method. The time consumed in carrying out the proposed method is only 35 minutes and according to tabulated results its accuracy compares favorably with the more tedious and time-consuming methods which have been used heretofore.—H. V. Arny and H. H. Schaefer, Sept., 1914, p. 748.

Hypothetical Combinations in Water Analysis.—This is a very complete resumé of a difficult subject, and one upon which all the light that can be thrown is needed. The various inconsistencies and errors shown in reports of water-analyses, which makes it frequently necessary to entirely re-calculate the analytical findings of one chemist, in order to bring them to a suitable basis for comparison with another, are dwelt upon in detail. The author condemns the frequently employed method of reporting the substances found in their hypothetical combinations and favors reporting the analysis in ionic form.—R. B. Dole, Sept., 1914, p. 710.

The Effect of Bread Wrapping on the Chemical Composition of the Loaf.—This is an exhaustive study of the subject, showing the results in graphic charts. The conclusions are emphatically in favor of the wrapping of bread, as a needed sanitary measure, which in no way detracts from the nutritive value or the palatability of the product.—H. E. Barnard and H. E. Bishop, Sept., 1914, p. 736.

THE PRACTICAL DRUGGIST.

Camphor and Its Preparations.—This is a continuation of a most interesting and valuable article. In the present instalment the author gives formulas for a number of unofficial

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preparations of the drug, including the following, which are not usually found in American works of reference, but are occasionally called for by foreign practitioners:

Collyrium Astringens Lutenum Violii.	Unguentum Hæmorrhoidale.
Aqua Cosmetica.	Unguentum Ophthalmicum Comp. (P. G.).
Emulsio Camphorata.	

The paper concludes with a consideration of some difficult combinations of camphor to be dispensed in pill form.—J. Leon Lascoff, Sept., 1914, p. 382.

Figuring the Selling Price:—The perennial topic of the calculation of net profits and the method of obtaining the proper figure for the selling price is graphically illustrated in this article, which includes tables so simple and yet so comprehensive that any desired net profit may be estimated almost at a glance.—A. G. Houston, Sept., 1914, p. 384.

AMERICAN JOURNAL OF PHARMACY.

Rhamnus Purshiana:—A very interesting and comprehensive article upon the subject, well illustrated. It is interesting to note that the original specimens which served as the type for the classification and naming of the plant were collected by Lewis and Clark on their famous expedition to the Northwest in 1805 and 1806 and sent to Frederick Pursh, the well-known Philadelphia botanist. Pursh named the plant *Rhamnus alnifolia*, but De Candolle, a contemporary botanist, in 1825, changed the name to *R. Purshiana* in honor of Pursh. A specimen was growing in Bartram's Gardens, Philadelphia, as late as 1838, and served as a basis for Rafinesque's studies of this for his "Silva Telluriana."—C. W. Johnson and Edith Hindman, Sept., 1914, p. 387.

The Insecticidal Value of Fluidextract of Larkspur Seed:—The author made a number of experiments upon the comparative value of the preparation as made with various menstrua and with preliminary treatment of the drug with various solvents. His conclusions are that the preliminary removal of the oil and its rejection, as frequently practiced for the purpose of giving a clear, bright preparation, is inadvisable and that the menstruum which will extract the largest proportion of fixed oil is the proper one to use. The preparations of highest efficiency were those in which petroleum benzin was used to first extract the drug, the residue from the evaporation of the benzin being subsequently taken up with 95% alcohol, in which it seems to be almost completely soluble. The preparation made in this manner proved to be more than six times as strong as a preparation made by simple extraction with diluted alcohol and ten times as strong as one made with 30% alcohol.—J. B. Williams, Sept., 1914, p. 414.

JOURNAL AMERICAN CHEMICAL SOCIETY.

Some Natural Indicators:—The author has made a very interesting study of the indicator value of the natural coloring matter of about 30 varieties of wild flower petals and those of some cultivated plants in which the most interesting feature seems to be the fact that none of the yellow colors of flowers are affected by either acids or alkalies, while whites are changed to yellow by alkalies and reds and purples are changed to some shade of green or blue by alkalies and back to their original color or a brighter shade by acids.—H. W. Brubaker, Sept., 1914, p. 1925.

JOURNAL OF THE FRANKLIN INSTITUTE.

Occurrence of Aldehydes in Garden and Field Soils:—Salicylic aldehyde was found in soils which had been found to be unproductive. The soils examined were from various parts of the U. S. Out of 14 garden soils, 5 contained aldehydes, and of 60 field soils, 12 contained aldehydes. Check experiments made with salicylic aldehyde upon growing plants showed the retardation to amount to from 30 to 40 percent.

The reaction of the soil or the character of the crop seemed to have no bearing upon the occurrence of the aldehyde. No proportions are given. Of 30 productive soils but 3 contained aldehydes, while of 30 unproductive soils, aldehydes were found in 9. It is not known

whether salicylic aldehyde is the only member of that group occurring in soils, but positive reactions were obtained for that one in every instance when aldehydes were found to be present.—Oswald Schreiner and J. J. Skinner, Sept., 1914, p. 329.

JOURNAL AMERICAN MEDICAL ASSOCIATION.

Potassium Permanganate, a Substitute for:—The prohibitive price to which potassium permanganate soared soon after the outbreak of the war in Europe and the fact that large quantities of the article were used in house-disinfection by the Health Department of Pennsylvania, led to an investigation of the subject by Charles H. LaWall at the request of the Commissioner. This investigation showed that Sodium Dichromate can be used for this purpose if the formaldehyde solution be previously acidulated with 15% of its volume of commercial sulphuric acid. The disengagement of gas is more prompt than with the permanganate, and as far as general comparative effects are concerned the reaction seems to be equally effective.—Dr. Samuel G. Dixon, Sept. 19, 1914, p. 1025.

DRUGGISTS CIRCULAR.

Digitalis and Its Preparations:—Dr. Hatcher's article, which is the first instalment only, may without any derogation to the author, be characterized as a most thorough example of scientific iconoclasm.

The pharmacological studies which have been made by competent observers have resulted in overthrowing a number of the earlier beliefs concerning this drug, many of which have persisted and are still current. Among these beliefs that have been contradicted by Hatcher are:—

First, that the wild plant is more valuable than the cultivated.

Second, that the leaves of the second year's growth are superior to those of the first.

Third, that the leaf grown in certain geographical regions is more potent than that grown in others.

Fourth, that the activity of the leaves rapidly deteriorates unless they are kept with unusual precautions.

Fifth, that the infusion and the tincture differ in the character of their therapeutic effect.

The preparation of the infusion from the fluidextract is stated to be productive of a very average infusion made directly from the drug, which is almost impossible to exhaust with unsightly product which, however, is very likely to be more active therapeutically than the boiling water, according to Dr. Hatcher, unless it be ground to No. 60 powder.—Robert A. Hatcher, M. D., Sept., 1914, p. 517.

BULLETIN OF PHARMACY.

Startling Inaccuracy in Scales, Weights and Measures:—This is not a sensational headline from a yellow journal, but a statement of facts relative to the inspection of weights and measures in drug stores in Wisconsin by the official having charge of that department of state work.

In this investigation it was found that 43.6% of prescription weights were inaccurate, 22% of the scales were found to be defective or inaccurate, and 45% of the graduates incorrect.

Similar inspections have been made by inspectors in the States of Massachusetts and Kansas with equally startling results.

Prescription bottles were also inspected in Wisconsin and 23% were found to be undersized and 10% oversized.

The inspector, in commenting upon the causes of inaccuracy in weights and scales, states that much of the trouble is undoubtedly due to improper methods of cleaning with acids, alkalis or polishing compounds.—Sept., 1914, p. 384.

BULLETIN KANSAS BOARD OF HEALTH.

Coined Word Substitutes for Beauty Drugs:—This article is a most complete review of the many products advertised so cleverly in the newspapers under the caption "Health and

Beauty Hints," or some other similar heading, and in which the information is given in the shape of fictitious answers to mythical correspondents.

Amarol, Epp-o-tone, May-a-tone and Sartoin consist principally of magnesium sulphate with from 8 to 20 percent. of borax or boric acid.

Spurmax is magnesium salts perfumed. Saxolite is magnesium sulphate and alum.

Boric acid, zinc oxide and sodium thiosulphate (Hypo) are the principal ingredients in Almazoin, Borothol, Cerol, Citrox, Flowers of Oxzoin, Luxor and Zintone.

Ammoniated mercury, a dangerous poison for indiscriminate use in a toilet preparation is present in Freckle Cream, Mercolized Wax, Othine and Tanazin. "Antifreckle Lotion" was found to contain soap, water and corrosive sublimate.

A "wrinkle lotion" was found to be composed of alum, glycerin and water.

Eptol consists of soap, water and borax.

Clearola is composed entirely of sulphur.

Cuticle acid is a 2% solution of oxalic acid in alcohol and water.

Among the skin cleaners was Gloriol Glowene, consisting entirely of soft soap.

Kulux Compound contains bismuth, zinc oxide and glycerin and water.

Among the shampoo preparations which contain borax, soap and alkaline carbonates in varying proportions are Am-o-tone, Caphol, Therox and Canthrox.

Capo-oil and Adora Hair Dressing, both used for the hair, were found to contain wood alcohol as a solvent.

Quinzoin and Quinola, for dandruff, consisted of sodium bicarbonate, ground quassia and quinine.

Perfumed vaseline was advised for silky eyebrows under the name Pyroxin.

Delatone and Delol, both depilatories, contain principally barium sulphide.

Quintone contained hyposulphite of soda and borax.

Among the flesh reducers are Parnotis, composed of baking soda and Glauber's salt, and Marnola, containing phenolphthalein and dried thyroid extract.—L. A. Congdon, Sept., 1914. p. 210.

REPORT N. Y. CITY BOARD OF HEALTH.

The Pro and Con of Artificial Flavors and Colors:—This is an interesting review of the subject, going into details to some extent and citing interesting examples as illustrations of various points. The summary is as follows:

1. Many synthetic flavors and odors are decidedly injurious to the human organism, either through their action, *per se*, or through their decomposition products.
2. With a few exceptions they are merely imitations and not identical with the real substances desired.
3. Only very rarely are these unnatural adjuvants to be classed as foods.
4. None are really vitally necessary since natural flavors and odors are available to everyone.
5. They may be used for fraudulent purposes.
6. At best, they are of doubtful value and wherever there is any doubt the consumer should have the preference.—Sept. 19, 1914.