EDITORIAL NOTES

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UNIFORM PHARMACOPOEIAL TEXTS FOR COPAIBA, BALSAM OF PERU AND BALSAM OF TOLU.

Prof. L. Van Italie has recently made an exhaustive study of the characters and tests of copaiba, Peru balsam and tolu balsam, and summarized the results of his observations, compared the texts of various pharmacopoeias with them, and formulated texts which he suggested should be included in the pharmacopoeias. These are printed in the Chemist and Druggist of August 14, p. 52. The following references relate only to new matter and wherein the U. S. P. differs.

Copaiba is designated a "balsam." The test for the presence of Gurjun balsam (U. S. P.) states "the acetic acid layer should not assume a violet coloration within half an hour." Also, "Copaiba should yield a clear mixture with an equal part of absolute alcohol, and also when mixed with an equal volume of petroleum ether; on mixing with two volumes of petroleum ether the resulting mixture should not be more than faintly cloudy."

Fatty oils and resin: "A mixture of three volumes of copaiba and one volume of ammonia should not be cloudy or milky (fatty oils), and should not gelatinize after standing for twenty-four hours (resin)."

The resin remaining after evaporation of the volatile oil should not be less than 45 percent. The acid value, determined in the same manner as for fatty oils, should not be less than 75, nor more than 85; the saponification value should not differ by more than 44, compared with the figure for the acid value."

Balsam Tolu is the balsam "obtained from the wounded stem of Myroxylon toluiferum, H. B. and K., which has become entirely or partly solid by exposure to the air." It is described as "a yellow or reddish brown, soft or crystalline mass which softens when slightly warmed." "The solid can be reduced to a greyish brown powder. * * * The undissolved impurities should not exceed 3 percent." The saponification value is given, 160 to 120. Ash yield 0.5 percent. The residue left from a solution (1 Gm.) in carbon disulphide, on boiling with 2 or 3 mils of ammonia should yield a solution which even after standing for twelve hours is not transformed into a jelly (test for resin).

Balsam of Peru is "obtained from Myroxylon Pereirae, Klotzsch, by removing the bark of the trunk, and later alternately slightly scorching the exposed surfaces and making incisions.

"On warming on the water bath balsam of Peru should not yield an odor of turpentine, copaiba, or storax, and after half an hour should not show a loss of more than 2.5 percent.

"One part of balsam of Peru mixed with 1 or even 2 parts of alcohol should yield a clear mixture; on mixing with over 3 parts of alcohol a cloudy mixture results, which shows an acid reaction.

"One part of carbon disulphide and 3 parts of balsam of Peru yield a clear mixture (artificial balsam)."

Specific gravity 1.145-1.80. Saponification number not below 220. "If the liquid obtained in the determination of the saponification value of the cinnamein be evaporated, and a portion of the residue warmed with 5 Ce. of potassium permanganate solution (1:20), benzaldehyde is formed."

WHY PROPRIETARIES FLOURISH.

Dr. Cary Eggleston, of New York, sent a communication to the *Journal A. M. A.*, which is printed under above heading in the issue of August 21, p. 558. He had prescribed

Troches of Ammonium Chloride, U. S. P., for a patient, who endeavored to have the prescription filled, but was not successful in seven large pharmacies, when Dr. Eggleston persuaded a pharmacist of his acquaintance to prepare them. It is no wonder that he should be displeased, and he concludes his communication by saying that "real pharmacy by real pharmacists is a necessity. He takes occasion to say that it requires persuasion to have some pharmacists gelatincoat pills; they endeavor to have precriptions changed to conform with stock formulas. He also makes references to experiences of two other physicians; one had prescribed an emulsion of cod liver oil, and the patient was informed this did not come without hypophosphites; another had prescribed Compound Laxative Pill, U. S. P. VIII, and the druggist inquired whether the Compound Cathartic Pill was wanted. While compelled to admit such occurrences, there is no reason why practitioners of medicine should not have the acquaintance of pharmacists who are desirous of filling prescriptions. We would have no trouble in referring to such both in New York and Boston-where the scenes of these transactions are laid. Prescription files will show that physicians are somewhat to blame for these conditions, but why criticize when cooperation will accomplish more?

THE NEW NORWEGIAN PHARMACO-POEIA.

The new Norwegian Pharmacopoeia follows the custom of most modern pharmacopoeias in using the language of the country in the text and Latin for official titles. The introductory pages are given to explanatory matter: methods of determining melting and boiling points; iodine, saponification, acid and ester indices are briefly described, and also percolation, sterilization, etc.; directions for collecting, drying, storing and comminuting of drugs are given. All medicines must meet pharmacopoeial requirements, and those for which an official method for preparation is given must be prepared in a pharmacy.

A weighable residue is designated as an amount exceeding I mg. Acid designations form the first part of official titles, and the arrangement being alphabetical, the chemicals are grouped accordingly—the bromides, iodides, sulphates, etc. The Latin nomenclature differs from other pharmacopoeias, thus—Brometum

Kalicum, Chloretum Cocaicum, Sulfas Chinicus.

Forty-one preparations have been deleted from the previous Pharmacopoeia and eighty-five have been added. Some of the additions follow. "Aetheroleum" is the designation for essential oil; some of the essential oils have been replaced by the principal constituent; hypophosphites have been introduced; the spelling of "aqua" and "liquor" will be noted. Monographs on fluidextracts state the specific gravity, and percentage of dry extract yielded on evaporation. As an emulsifier a mixture of acacia (4), tragacanth (4) and gelatin (1) is employed in cod-liver oil emulsion.

ADDITIONS.

Acid. acetylsalicyl. Liqvor formaldehydi Acid. diaethylo-barbisaponatus turic Novocain Æther petrolei. Proteinum argenticum Pulvis antiasthmaticus Æther pro narcosi. Ætheroleum coriandri Salicylas antipyricus Salicylas hydrargyricus Agva sedativa Bitartras suprarenicus Solutio chloreti natrici physiologica Chloroformium nro narcosi Solutio subacetatis alu-Cinnamalum minici Emulsio olei jecoris Sulfas sparteicus aselli Syrup. hypophosphitis Eucalyptol calcici Eugenol Syrup. hypophosphi-Extr. thymi fluidum tum comp. Vin. frangulae comp.

VETERINARY DOSE TABLE IN THE FINNISH PHARMACOPOEIA.

The fifth edition of the Finnish Pharmacopoeia, official since January 1915, contains a table of maximum single doses of drugs for full-grown horses, cattle, sheep, pigs and dogs.

MOTOR ALCOHOL FROM MOLASSES IN HAWAII.

From the lowly and sticky molasses is being produced "motor alcohol"—a substitute for gasoline. Discovered by J. P. Foster, chemist of one of the big sugar plantations on the Island of Maui, Hawaii, production within the next three months will be sufficient to furnish fuel for all cars on the islands should a gasoline shortage occur. According to the first reports of the new fuel brought to San Francisco "motor alcohol" gives more power, greater mileage, easier starting and more freedom from carbon than gasoline. It can be used without an adjustment of the carburetor.

The new fuel is performing in automobile, marine, stationary, truck and tractor engines. In a 36-hour test made with a 75-horse-power tractor the consumption of "motor alcohol" was four gallons an hour compared to four and a half gallons of gasoline in the same engine on the same work. Examination of the cylinders showed most of the old carbon deposit removed and the remainder so soft it could be removed with the fingers.

Sugar plantations have been letting their molasses run to waste or burning it for the potash recovery. Nitrogen and phosphoric acid are also valuable by-products of molasses. Now, however, production of the new fuel is found to be more profitable than obtaining other by-products.

At present there is enough molasses available to produce 9,000,000 gallons of "motor alcohol"—enough to supply all automobiles in Hawaii. Development of this industry will release shipping space formerly used for transporting gasoline from the United States.—

Scientific American.

TECHNICAL TABLETS.

BY WILBUR L. SCOVILLE.

Far seeing.—Mr. Becke says that we see colors because the black pigment of the eye transforms the rays of light into heat, then the heat thus produced is perceived as light, and then color perceptions are brought about by the mental reaction to the absence of heat stimuli.

German chemists say that aldehydes of all kinds stimulate alcoholic fermentation.

Salt water for bacteria.—Sodium chloride tends to favor the growth of bacteria, but calcium chloride materially reduces it. The calcium salt is not thought to be toxic, but it reduces the permeability of the cell membrane and prevents the diffusion of catabolic products. Hence calcium chloride in water tends to act as an antiseptic.

The place for cresol.—Cresol does not act as effectively as a disinfectant in alkaline solutions on most bacteria, but with the colibacillus it is efficient. Hence in alkaline solutions cresol is especially suitable for hospital use.

So iso!—Solutions for intravenous injection are now made isoviscous as well as isotonic. To make them isoviscous about 3 to 6 percent of acacia is dissolved in them. This adds a colloidal property also, which improves their

effects by retarding osmosis and taking the place of lost blood.

Feels them coming.—When the epileptic seizure is coming on, the urine and blood show a remarkable increase in the content of ammonia. The approximate time of the fit can be foretold from this. It is thought that this indicates that epileptic fits are the results of an auto-intoxication by waste albuminous products, and this is the first toxic substance yet demonstrated as caused by psychosis.

Your nose knows.—"Odors are caused by the vibrations of electrons. The nasal sensory nerves have electron vibrations which are increased by resonance when odoriferous particles with corresponding intramolecular electron vibrations are drawn into the nose admixed with air. Metallic atoms readily detach electrons, hence are not suited for the production of odor." Is that catarrhal understanding?

Another fallacy exposed.—Utz says that when rapidly smoked, eigarettes containing 3 grains of opium each fail to show the slightest trace of morphine in the smoke. When very slowly smoked, a slight trace could be detected. Of nicotine, about one-third of that found in the tobacco could be found in the smoke.

A good excuse.—A French chemist thinks that since the enamel of the teeth is so sensitive to acids and bacterial corrosion, one of the main functions of the saliva is to protect and repair the enamel. Thus does science come to the support of the chewing gum habit.

Don't be a pessimist.—Depressive emotions and anxiety have been shown to increase the blood sugar and therefore to have an influence in diabetes. When diabetes is not shown, strong emotions produce hyperglycemia in marked degree. Be calm and don't waste your sugar.

Ice cream thrift.—H. A. Ruche claims that if ice cream manufacturers will invert the sugar before using it to make ice cream, a saving of 20 to 25 percent of the sugar will be effected. And a mixture of the invert sugar with glucose effects a further saving. To invert the sugar he simply boils 100 pounds of sugar in 45 pounds of water and 50 Gm. of tartaric acid for 30 to 35 minutes.

Oh, the cost!—In testing new motor fuels, mixtures of alcohol 1, ether 2 and gasoline 25 to 40 have been found to act much better than gasoline alone, and to remove carbon from the cylinders. Benzene also works well

in combination with small quantities of alcohol and ether, but if used too richly it causes deposits of frost on the carburetor. Benzene is increasing in production and promises to take a place in motor fuels.

No soda here.—An Italian chemist says that calomel is compatible with antipyrin in neutral or acid media, but is incompatible in alkaline media. In alkaline mixtures a compound is formed which is more toxic than calomel.

On the label.—Benzoic acid is found to inhibit the growth of the diphtheria bacillus in 0.04 percent solution, and is suggested as a germicide in wounds and internally for asthma, tuberculosis and rheumatism. Sodium benzoate is inert as an antiseptic.

PERSONAL AND NEWS ITEMS.

Few, perhaps, know that the scientist, Henry Cavendish, was a man of wealth—at the time of his death he owned \$1,157,000 in different public funds, in addition to an income of \$8,000 a year from his land and a bank balance of \$50,000.

During the second week of August the city of Antwerp celebrated the 400th anniversary of the birth of Christopher Plantin, the founder of the printing house to whom we are indebted for the production of several of the most important herbals of the 16th century and for the illustrations of many more.

One hundred years ago (1820) Pelletier isolated quinine. The discovery of organic alkalis by Sertürner enabled Caventou and Pelletier to show that the cinchonine of Gomez, a Portuguese pharmacist, consisted of two distinct alkaloids which they named respectively quinine and cinchonine. Among the researchers of that and earlier periods may also be named Houton-Labillardiere, Fourquoy, Vauquelin and Berthollet.

Dr. Hermann Schelenz, honorary member of the American Pharmaceutical Association since 1912, was given the honorary degree of "doctor of medicine," July 22, by the University of Freiburg.

Dr. Armand Gautier, French chemist of note, died recently at Cannes, France, aged 83 years. His researches on ptomaines, discovered by him in 1873, and on alkaloids of bacterial origin, and his discovery of alkaloids from animal tissues, or leucomaines, won him a reputation in scientific medicine, and his experiments with organic compounds of

arsenic led to the practice of subcutaneous injections of sodium cacodylate.

Gautier's most important works are his Cours de chimie minérale et organique (1895), Les toxines microbiennes et animales (1896), Leçons de chimie biologique normale et pathologique (1897), and L'alimentation et les régimes chez l'homme sain et chez les malades (1904).

- M. H. Gautier, director of the Paris Superior School of Pharmacy, has been officially nominated "Dean of the Faculty of Pharmacy of the University of Paris."
- M. Henri Martin, president of the General Association of French pharmacists, is a member of the French Committee of Anti-Venereal Prophylaxis.

A bronze bust of **Zacharie Roussin**, discoverer of certain aniline dyes, has been unveiled at the Rennes School of Medicine and Pharmacy (France), of which institution he was at one time a student, and M. Lenormand, professor of Analytical Chemistry and Toxicology at the school, who organized this commemorative ceremony, has been awarded the Cross of the Legion of Honor.

James Wilson, Secretary of Agriculture at the time of the enactment of the Pure Food and Drugs Act, died August 26, aged eighty-five years. He was Congressman for three terms, Secretary of Agriculture, U. S., for sixteen years; he served as regent of Iowa State University, and was also director of Iowa Experiment Station, and professor of Agriculture at the Iowa State Agricultural College.

Establishment in Panama of an International Institute for the Research of Tropical Diseases is proposed as a memorial to Major General William C. Gorgas, who died recently in London and whose most noteworthy health work was carried on in the Canal Zone.

Announcement was made in these columns of the July issue of the appointment of Dr. Taylor Bogert as a member of the Tariff Commission; since then, he has formally declined to accept the appointment.

Leo R. A. Suppan has been appointed associate professor of Pharmacy in the St. Louis College of Pharmacy and Carl G. Hinrichs associate professor of Chemistry in the same institution.

The Lebanon Times of August 18 devotes a column to castor bean cultivation in Lebanon County. Our veteran member, Joseph L.

Lemberger, gave this cultivation stimulus, and he has a number of full grown plants in the yard, back of his pharmacy.

Herbert Carl Raubenheimer, associated in business with his father, Otto Raubenheimer, was married to Miss Mildred Cole, of Lynbrook, Long Island, June 8th. The honeymoon trip was delayed until last month, and extended through Canada and New England.

Jeannot Hostmann, Recording Secretary of the House of Delegates, A. Ph. A., was the honor guest of Maryland Pharmaceutical Association.

A. G. Du Mez, Secretary of the Council A. Ph. A., addressed the Virginia Pharmaccutical Association, during the recent convention; the subject of his address was, "Is the Pharmacist of To-day Rendering to the Fullest Extent the Service for which He Is Fitted by Education and Training?"

Commodore Henry B. Gilpin, of Baltimore, was severely injured on August 2 when his automobile ran over an embankment and upset in trying to avoid another machine, in Frederick County, Maryland.

Henry P. Hynson, of Baltimore, left on July 15 for Seattle to be the guest there of his daughter, Mrs. John Bayless. He was accompanied by his daughter-in-law, Mrs. Henry P. Hynson, Jr., and granddaughter.

Simon Newton Jones, after fifty-two years of honorable service in the cause of pharmacy. has retired from the retail drug business. He has always taken an active part in all important matters affecting pharmacy, whether national, State or civic. He was one of the founders of the N. A. R. D., an honorary member of the Chicago Veteran Druggists' Association, and served as president of the Louisville Retail Druggists' Association for over twenty years. He has been an untiring worker for the Louisville College of Pharmacy, of which he is the president. Mr. Jones joined the American Pharmaceutical Association in 1870, hence, this is the 50th anniversary of his membership, and we take this opportunity of extending congratulations and best wishes.

OBITUARY.

PHILIP ASHER.

Dr. Philip Asher, one of the best known pharmaceutical educators in the South, died at Touro Infirmary, New Orleans, La., July 5th, after an illness of several months. Dr. Asher was a native of New York City. After his graduation from the New York College of Pharmacy in 1887 he went to New Orleans as chemist for a manufacturing firm. After his graduation as a physician from the Tulane University in 1895 he practiced medicine for a time. His preference, however, was for teaching, and in 1900 he was one of the founders of New Orleans College of Pharmacy, in which he was dean and professor of chemistry for 17 years. For several years before his death he had been interested in a commercial analytical laboratory. Dr. Asher carly became affiliated with the American Pharmaccutical Association, was an enthusiastic attendant at its meetings and frequently contributed papers on pharmaceutical and related subjects. He was also a member of the American Chemical Society. He was the author of a work on "Chemistry and Toxicology for Nurses" and was a regular contributor to several periodicals on scientific subjects.

Dr. Asher was an enthusiastic teacher and much loved by his students. He made a practice of encouraging the ambitious student who was handicapped by poverty and many of his graduates feel that their success has been due largely to the inspiration received from their preceptor. In 1897 Dr. Asher married Miss Belle Picard, of New Orleans, who survives him.

E. G. MURPHY.

On May 30, death claimed E. G. Murphy, druggist, of East Las Vegas, New Mexico. He was born at Uniontown, Pa., August 16, 1857, and died at Saint Anthony's Sanitarium, East Las Vegas, following an operation for gallstones. In the death of Mr. Murphy, New Mexico has lost one of her leading citizens and her most prominent druggist. He had been engaged in the drug business in Las Vegas continuously for more than thirty years, was one of the organizers of the Board of Pharmacy, a member of it for more than thirty years, and president for many years. Mr. Murphy joined the American Pharmaceutical Association in 1909.