BIBLIOGRAPHY OF PHARMACEUTICAL RESEARCH

Compiled by A. G. DuMez, Reporter on the Progress of Pharmacy.

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APPARATUS AND MANIPULATIONS.

Gardos, E.
Standardization of viscosity pipettes
Am. J. Pharm., 97 (1925), 541

Spear, E. B., and Moore, R. L.
A microtome from a microscope and a sectioning razor
Ind. & Eng. Chem., 17 (1925), 894

PHARMACEUTICAL PREPARATIONS.

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Accuracy of hypodermic tablets
Am. J. Pharm., 97 (1925), 557

Anon.
Denaturants for toilet preparations
Chem. & Drug., 103 (1925), 288

Breteau, P.
Notes on preparation of antiseptic chlorinated solutions
J. pharm. et chim., 2 (1925), 142

Chauvin
Frequent analysis of extract cherry laurel necessary
Rept. to Soc. pharm. Paris (Jan. 7, 1925); through *Repert. pharm.*, 8 (1925), 226

Clément, R.
Mercurochrome
Presse méd. (Feb. 11, 1925); through *Repert. pharm.*, 8 (1925), 242

Deane, H., and Edmonton, W.
Titration of nux vomica preparations
Pharm. J. (July, 1925), 96; through *Repert. pharm.*, 7 (1925), 214

Gillot, P.
Mercurial tablets
J. pharm. et chim., 2 (1925), 129

Glover, C. C., and Fuss, C. G.
Notes on pepsin preparations
JOUR. A. PH. A., 8 (1925), 683

Huerre, R.
Menthol liquid
Repert. pharm., 7 (1925), 193

Middleton, G.
Conservation of anesthetic ether
Pharm. J. (July 1924), 97; through *Repert. pharm.*, 7 (1925), 212

Perkins, M.
Analysis of medicinal carbon tetrachloride
Pharm. J. (July 1924), 101; through *Repert. pharm.*, 7 (1925), 214

Roberts, I.
Quantitative estimation of mercury and its compounds in ointments
Pharm. J. (July 1925), 113; through *Repert. pharm.*, 7 (1925), 216

Snidow, H. V., and Langenhan, H. A.
Pharmaceutical study of acetylsalicylic acid
JOUR. A. PH. A., 8 (1925), 694

Whatmough, W. A.
Modern physico chemistry and its pharmaceutical applications
Chem. & Drug., 103 (1925), 348

PHARMACOLOGY AND THERAPEUTICS.

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Perf. & Ess. Oil Rec., 9 (1925), 265

Anon.
Physiological functions of perfumes
Perf. & Ess. Oil Rec., 9 (1925), 269

Anon.
Structure of lemon peel. Vitamine content
Perf. & Ess. Oil Rec., 9 (1925), 260

Bonnet and Pétouraud
Treatment of buboes and blennorrhagic orchitic by hypodermic injections of casein
Lyon Med. (Jan. 11, 1925); through *Repert. pharm.*, 7 (1925), 207

Canals, E., and Gidon, M.
Absorption of potassium iodide by the skin
J. pharm. et chim., 2 (1925), 102

Cheinisse
Intravenous injections of calcium chloride in pulmonary tuberculosis
Presse méd. (Sept. 20, 1924); through *Repert. pharm.*, 7 (1925), 208

D'Haenens
Localization of arsenic after intravenous injections
Arch. int. Pharm. et Therap. (1925), 291; through *J. pharm. Belg.*, 27 (1925), 488

Douglas
Treatment of burns by adrenalin
Soc. Biol. (Jan. 19, 1925); through *J. pharm. Belg.*, 27 (1925), 488

Fleury, P.
The state of uric acid in the urine
J. pharm. et chim., 2 (1925), 195

Frossard, S. R.
Non-fatal poisoning of child by nitrobenzene
Rept. Soc. pharm. Paris (Feb. 4, 1925); through *Repert. pharm.*, 8 (1925), 241

Guyot, R.
Microbic alteration in ampouled glucose serum
Bull. soc. pharm. Bordeaux, 63 (1925), 45; through *J. pharm. et chim.*, 2 (1925), 117

Haskell, C. C.
Comparison of action of pituitary solution and of ergot on the isolated human uterus
Jour. A. Ph. A., 8 (1925), 665

Külz, F.
Differences in pharmacological effects of drugs upon animals and man
Am. J. Pharm., 97 (1925), 527

Levaditi, Fournier and Schwartz
Basic bismuth acetyloxyaminophenyl arsinate in syphilis
Compt. rend. Acad. sc. (June 22, 1925); through *Repert. pharm.*, 8 (1925), 240

Lumière, A., and Couturier, H.
Anticoagulant action of zinc salts
Acad. des Sci. France (May 4, 1925); through *J. pharm. Belg.*, 27 (1925), 488

Maheu, J., and Cheramy, P.
A case of poisoning by Veratrum album, L. (white Hellebore)
J. pharm. et chim., 2 (1925), 185

Mindes, J.
Characteristic reaction of santonin
Pharm. Monatsh., 2 (1925), 731; through *J. pharm. Belg.*, 27 (1925), 488

GENERAL BOTANY AND BACTERIOLOGY.

Short, R. A.
Strychnos cinnamomifolia
Pharm. J. (July 1924), 97; through *Repert. pharm.*, 7 (1925), 212

ALKALOIDS AND GLUCOSIDES.

Barthe, L., and Dufilho, E.
Gravimetric method of estimation of the alkaloids of opium
Bull. soc. pharm. Bordeaux, 3 (1925), 165

Barthe, L., and Dufilho, E.
Volumetric estimation of alkaloids of opium
Bull. soc. pharm. Bordeaux 3 (1925), 170

Fabre, R.
New method for extraction of alkaloids or other organic compounds from the organs
Compt. rend. acad. sc. (Mar. 23, 1925); through *Repert. pharm.*, 8 (1925), 237

Goris and Métin
Effect of age on solutions of aconitine
Compt. rend. Acad. sc. (May 11, 1925); through *Repert. pharm.*, 8 (1925), 238

Hérissey, H.
Extraction and properties of the new glucoside of asperula
J. pharm. et chim., 2 (1925), 177

Sabalitschka, Th., and Jungermann, C.
On the alkaloid content of sprouting seeds
Pharm. Zentralh., No. 30 (1925), 474

OILS, FATS AND WAXES.

Boedtker, E.
On the presence of lecithin in fat
J. pharm. et chim., 2 (1925), 107

ESSENTIAL OILS.

Anon.
Review of the rose as pertaining to perfumery
Perf. & Ess. Oil Rec., 16 (1925), 283

Anon.
Notes on large Bulgarian distilleries and particulars of processes
Perf. & Ess. Oil Rec., 16 (1925), 305

Blisnakoff, T.
Bulgarian rose culture and peasant distillation
Perf. & Ess. Oil Rec., 16 (1925), 289

LaWall, C. H.
A new emulsifying agent for volatile oils
Jour. A. Ph. A., 8 (1925), 703

Moudgill, K. L.
Essential oil of Ageratum conyzoides, L.
J. Indian Chem. Soc., 1 (1925), 273; through *Perf. & Ess. Oil Rec.*, 9 (1952), 261

Russell, G. A.
Influence of climatic conditions on the yield and quality of oil of Mentha arvensis, var. piperascens
Jour. A. Ph. A., 8 (1925), 679

Schimmel and Co.
Oil of bergamot
Schimmel and Co. Berichte (1925), 24; through *J. pharm. Belg.*, 27 (1925), 486

Schimmel and Co.
Oil of eucalyptus
Schimmel and Co., Berichte (1925), 36; through *J. pharm. Belg.*, 27 (1925), 487

Simonsen, J. L.
Indian essential oils
Ind. For. Rec., 11 (1924), 1; through *Perf. & Ess. Oil Rec.*, 9 (1925), 282

MISCELLANEOUS PLANT CONSTITUENTS.

Arends, G.
Analysis of fluidextract of spurred rye
Pharm. Ztg., (1925), 566; through *Repert. pharm.*, 7 (1925), 217

Eder, R., and Schneiter, W.
Estimation of cantharidin in cantharis
J. suisse de Pharm. (1925), 229; through *Repert. pharm.*, 7 (1925), 210

Newcomb, E. L., and Fischer, E. B.
Assay of samples of digitalis
JOUR. A. PH. A., 8 (1925), 669

Peacock, J. C., and B. L.
Tannin of Rhus Glabra
JOUR. A. PH. A., 8 (1925), 673

Wasicky
Analysis of aspidium
Pharm. J. (Dec. 1924), 608; through *Repert. pharm.*, 7 (1925), 216

GENERAL AND PHYSICAL CHEMISTRY.

Lane, L. B.
Freezing points of glycerol and its aqueous solutions
Ind. & Eng. Chem., 17 (1925), 924

Leffmann, H., and Tramper, M.
Tests for diethylphthalate
Am. J. Pharm., 97 (1925), 507

Levinson, S.
Detection of diethylphthalate
Ind. & Eng. Chem., 17 (1925), 929

ORGANIC CHEMICALS.

Fabre, R.
Synthetic methyl alcohol
J. pharm. et chim., 2 (1925), 113

Smolenski, K.
Preparation of methylglycuronic by oxidation of methylglucoside
J. pharm. et chim., 2 (1925), 205

Viol, C. H.
Radon, a new radium derivative
Am. Druggist, 73 (1925), 13

CLINICAL AND DIAGNOSTIC METHODS.

Florence, A.
Determination of albumin in urine
J. pharm. et chim., 2 (1925), 97

Raquet, D., and Paget
Urine analysis
Repert. pharm., 7 (1925), 195

RECOMMENDATIONS FROM THE COMMITTEE OF REVISION OF THE UNITED STATES PHARMACOPŒIA FOR THE CONSIDERATION OF THE SECOND BRUSSELS CONFERENCE.

(PRESENTED AT THE INVITATION AND THROUGH THE COURTESY OF THE OFFICIAL DELEGATE OF THE UNITED STATES GOVERNMENT, DR. A. G. DUMEZ.)

In response to the invitation of the United States Government for recommendations to be presented to the Second Conference Internationale pour L'Unification de la Formule des Médicaments Héroïques, held at Brussels, September 21, 1925, the Committee of Revision of the Pharmacopœia of the United States submitted the following recommendations:

1. CONCERNING A REVISION OF THE DECISIONS MADE BY THE FIRST CONFERENCE. ARTICLE I.

Nomenclature—This question is discussed and recommendations made under item 10 of the tentative program.[1]

[1] See p. 663, August JOUR. A. PH. A.

Definition of the Drug.—We believe it more important in the limiting definition of drugs to establish alkaloidal or biological standards rather than to exact limitations regarding tailings, or the presence of stems or other plant parts, the control of which is not always within the province of the pharmacist.

Statements concerning the limitation of the use of a drug, depending upon the time lapsing since its collection, are not enforceable, as such factors cannot be determined and are furthermore of relatively little importance with drugs which can be assayed.

We recommend that definite chemical standards be fixed for all drugs for which reliable processes of assay are available and, for such drugs as do not lend themselves to chemical assay, that biological assays be introduced if feasible.

The United States Pharmacopœia, Tenth Revision, has standardized the following drugs and preparations by chemical methods, and we recommend their consideration for international agreement:

Aspidium
- Oleoresin Aspidii

Belladonna Folia
- Extractum Belladonnæ
- Tinctura Belladonnæ
- Fluidextractum Belladonnæ Foliorum

Belladonna Radix
- Fluidextractum Belladonnæ Radicis
- Emplastrum Belladonnæ

Cinchona
- Fluidextractum Cinchonæ
- Tinctura Cinchonæ
- Tinctura Cinchonæ Compositæ

Colchici Semen
- Extractum Colchici
- Fluidextractum Colchici
- Tinctura Colchici

Hydrastis
- Fluidextractum Hydrastis

Hyoscyamus
- Extractum Hyoscyamus
- Fluidextractum Hyoscyamus
- Tinctura Hyoscyami

Ipecacuanha
- Fluidextractum Ipecacuanhæ

Ipomoea

Jalapa

Nux Vomica
- Extractum Nucis Vomicæ
- Tinctura Nucis Vomicæ

Opium
- Tinctura Opii

Podophyllum

Stramonium
- Extractum Stramonii
- Tinctura Stramonii

Biological assays have been adopted by the U. S. P. X for the following drugs and preparations:

Aconitina
- Tinctura Aconiti

Cannabis
- Extractum Cannabis
- Fluidextractum Cannabis

Digitalis
- Tinctura Digitalis

Liquor Epinephrini Chloridi

Ergota
- Fluidextractum Ergotæ

Liquor Pituitarii

Scilla
- Tinctura Scillæ

Strophanthus
- Tinctura Strophanthi

Type samples conforming to the Pharmacopœial requirements, for these biologically standardized drugs are being supplied to manufacturing pharmacists by the U. S. Bureau of Chemistry, for the purpose of establishing greater uniformity in this class of medicaments.

We also recommend that suitable steps be taken for the establishment of an international agreement upon acid-insoluble ash standards and descriptions of

microscopic elements for vegetable drugs, and offer those of the U: S. P. X as a basis for comparison. Agreements should also be reached upon the meaning of terms used in describing the degree of fineness of ground and powdered drugs. The U. S. P. X has established new definitions and standards after an extensive study of commercial conditions. It would be desirable to form International Committees to study all of these standards and to recommend a basis for agreement.

ARTICLE II.

(*a*) The discontinuance of medicinal wines has met with approval in pharmacy in the United States, and all medicinal wines have been excluded from the Pharmacopœia.

(*b*) While the adoption of 10 per cent strength for tinctures of potent drugs has proven generally advantageous, and should be retained as the maximum strength, there are some cases in which 10 per cent strength is impossible or undesirable and we recommend that exceptions to this maximum standard be made where the character of the drug makes this desirable.

For example, the active constituents of cantharides are not sufficiently soluble in any of the menstrua proposed to make a tincture fully representing 10 per cent drug strength. Possibly a 5 per cent tincture would serve the need for such a preparation and would be practicable. The addition of acetic acid to the menstruum for tincture of cantharides increases the amount of cantharidin extracted.

(*c*) The 100 per cent strength for fluidextracts is approved if the percentage is stated upon a weight-volume basis.

Alcoholic per cent menstruum.—The attempt to establish the alcoholic strength of menstrua is a refinement of detail, especially for assayed preparations, and may well be left to the revisers of the several national pharmacopœias.

The prime factors to be considered are the extraction of the drug and the permanency of the finished preparation; standardizing the percentage of alcohol is of secondary importance. For example, in the 1906 Protocol the Tincture of Opium is directed to be made with 70 per cent alcohol. The alcohol in this preparation serves primarily as a preservative and is not required for the extraction of the drug. Consequently, it can be reduced to 20 per cent alcohol by volume, which is ample for that purpose.

Manufacturing processes.—The method of manufacture, whether by percolation or maceration, is likewise a matter to be left to the judgment of the individual pharmacopœial revision committees.

Parts by weight.—The custom of manufacturing liquid galenicals by volume and not by weight is so thoroughly established in the United States that it cannot be displaced by a percentage or weight system and under these conditions it seems necessary to make a reservation that this established system of the United States may be retained. For all practical purposes the products of either system are therapeutically identical.

ARTICLE III.

The United States Committee believes that the consideration of a standard drop measure is beyond the scope of the Brussels Conference.

2. UNIFICATION OF THE COMPOSITION OF OTHER POTENT MEDICAMENTS.

We recommend that the Brussels Conference establish international standards for additional important therapeutic agents, and suggest the following specific titles:

Acidum Hydrochloricum
Acidum Nitricum
Acidum Phosphoricum
Acidum Sulphuricum
Aconitina
Antitoxinum Diphthericum
Antitoxinum Tetanicum
Arsphenamina
Barii Sulphas
Cinchona and its preparations
Diluted Acids
Hydrastis and its preparations
Liquor Epinephrinæ Hydrochloridi
Liquor Pituitarii
Liquor Potassii Hydroxidi
Liquor Sodii Hydroxidi
Neoarsphenamina
Scilla and its preparations
Spiritus Æthylis Nitritis
Spiritus Glycerylis Nitratis
Thyroideum
Tincture Ferri Chloridi
Vaccinum Variolæ

3. UNIFICATION OF ARSENIC AND BISMUTH PREPARATIONS.

It is desirable to reach international agreement upon the standards for arsenical preparations, both inorganic and organic.

We do not see the necessity for international agreement upon standards for bismuth preparations. If preparations for injection are intended there is apparently no official preparation in any of the pharmacopœias to be used as a basis for agreement.

4. IS IT DESIRABLE TO UNIFY THE CHEMICAL ASSAY METHODS FOR CERTAIN MEDICAMENTS?

We recommend that a comparison of the various methods of estimating alkaloidal content by the gravimetric method and by titrating should be made a matter of thorough international research. In the adoption of standard methods, the degree of expected accuracy or concordance in results should be determined.

The method selected for determining the standard processes of assay should be left for a careful consideration of all information and data available.

Where possible, tests for the identification of the materials isolated in the assays should be adopted.

5. IS IT DESIRABLE TO ADOPT BIOLOGIC METHODS OF ASSAY AND TO UNIFY THEM?

We recommend that bio-assay methods be adopted for such drugs as cannot be assayed chemically, if bio-assays are feasible. We believe that preference should be given to the recommendation of the Biological Products Conference of the Health Committee of the League of Nations.

6. UNIFICATION OF MAXIMUM DOSES. 7. CONSIDERATION OF THE PROPOSITION TO ADOPT SPECIAL CONTAINERS FOR DISPENSING MEDICAMENTS WHICH WILL INDICATE BY THEIR FORM OR OTHER PECULIARITY WHETHER THE CONTENTS ARE INTENDED FOR INTERNAL OR EXTERNAL USE.

We are of the opinion that the questions of dosage and of special containers for dispensing are beyond the scope of the Conference.

8. INTERNATIONAL REGULATION OF THE TRAFFIC IN NARCOTICS.

This is distinctly a police proposition and not medical or pharmaceutical and can be well left to other agencies that have the subject under consideration.

9. EXAMINATION OF THE PROJECT TO CREATE A PERMANENT INTERNATIONAL SECRETARIAT OF PHARMACOPŒIAS.

We approve of the project to establish an international secretariat of pharmacopœias. A definite program should be formulated by the Conference, after a study of the requirements and possibilities of the office.

10. ADOPTION OF AN INTERNATIONAL NOMENCLATURE FOR PHARMACOPŒIAS.

We believe that the time has come when there should be outlined specific rules for a "Latin of pharmacy and medicine" to be applied to the titles of the materia medica and adopted in the future revisions of the pharmacopœias of the contributing nations. This Latin must differ in some respects from that of classical Latin because of the number of modern terms and titles for which no classical word seems to be entirely appropriate.

As an illustration of this need, a recent compilation of nineteen of the national pharmacopœias shows twelve different official titles for Fowler's Solution.

It is believed, however, that the Conference should formulate a set of general principles to be followed rather than to concern itself with individual titles. These principles should be sufficiently flexible to permit minor deviations due to the established usage in the different countries and thereby make it possible for all of the pharmacopœial revision committees to adopt them.

In the event that an international system of nomenclature is adopted, it is suggested that Latin be used for the official titles, since it is the language most generally used for this purpose and is subject to little change.

If a single general form for titles cannot be agreed upon, it is recommended that the dual system, adopted by the Conference in 1902, and now in use in the International Protocol, be adopted.

In cases where the revision committees of the various pharmacopœias find it impracticable to adopt as the official title a title recommended by the Conference, it is suggested that the international title be given as a synonym followed by the abbreviation "P. I."

It is recommended that the name of the cation precede that of the anion in the titles for salts, as is now done in the majority of the pharmacopœias.

It is recommended that the matter of including trade-marked names as synonyms for official items be left to the discretion of the individual committees of revision of the various pharmacopœias, since the use of these names in this manner is prohibited by law in some countries.

IN MEMORY OF DEAN DILLY.

A bronze tablet in memory of Professor Oscar C. Dilly, late dean of the Louisville College of Pharmacy, has been placed in that institution and unveiled. It was given by the members of the classes of 1924 and 1925. Professor Dilly was born on June 2, 1866, and died on Jan. 3, 1925. See sketch in January JOUR. A. PH. A., p. 67.