

## REPORTS OF COMMITTEES

### REPORT OF THE COMMITTEE ON PHYSIOLOGICAL TESTING.\*

The members of the Committee were not appointed until May, and the time elapsing before the annual meeting was so short that it was thought best to consider by correspondence what might be done during the coming year, rather than to start laboratory work and not be able to complete it. In view of the fact that so much time is required for laboratory work, it seems to us wise to recommend that the re-appointment of this Committee, or the appointment of a new Committee, should be made at the annual meeting or very soon thereafter, in order that any studies which it is thought advisable to take up may be started early and continued through the year and brought to a successful close, in time for the annual report.

We are informed that the United States Pharmacopœial Revision Committee will shortly report on the subject of Physiological Testing. It would seem to us that a study of whatever of such tests as may be adopted or recommended, and particularly as to their applicability to commercial testing, would be of much interest to this Association.

In connection with any method of physiological assay of the Heart Tonics of the Digitalis Series that may be adopted, it seems desirable, in order to get uniform, practical results, to investigate the following factors, assuming that some form of the frog method will be selected:

(a) What is the best means of collecting and storing frogs. (b) How is the accuracy of the assay method influenced by: moisture; temperature; light; rapidity of absorption; percentage of alcohol and other diluting fluids; concentration and size of dose; most suitable temperature and other conditions for carrying out the tests, etc.

Every effort should be made to reconcile the variations in technic employed in the different laboratories, in order to devise such technic as will give uniform and practical results.

Cannot preparations of aconite be assayed more accurately by the chemical than by a physiological method?

On account of the growing importance of the products of the pituitary gland as oxytocic agents, consideration of the best method of assaying such products or active principle or principles should be given attention.

We may briefly report that the following is a synopsis of the work that has been published on the subject of Physiological Testing in this country and abroad during the past year:

*Sollman, Mendenhall and Stingel.* The Influence of Temperature and Concentration on the Quantitative Reaction of the Heart to Ouabain.

*Journal Pharmacology and Exper. Therapeutics*, vol. vi, May, 1915.

The authors find both these factors to influence the toxicity of ouabain to frogs, particularly the former. At 15° C. the M. L. D. of ouabain is six times as great as at 26° C.

*Pittenger, Paul S.* A New Pharmacodynamic Assay Method. *JOURNAL A. PH. A.*, vol. iv, April, 1914.

Gold fish are suggested as test animals for the assay of the Digitalis Series of Heart Tonics. Weight can be ignored; individual variations are only slight: temperature and concentration are the two most important factors.

*Hamilton and Rowe.* What is the Best End-Point in the Frog Heart Method for Digitalis? *JOURNAL A. PH. A.*, vol. iv, 1915, p. 108.

The authors submit data from which they conclude that ultimate death is a more distinct end-point than systolic stand-still in one hour and is less affected by variable factors.

*Hamilton, H. C.* Cannabis Sativa. Is the Medicinal Value Found Only in the Indian Grown Drug? *JOURNAL A. PH. A.*, vol. iv, April, 1915.

The author brings forward no new experiments, but comments on the previous experiments of himself and others, criticizes the conclusions of Eckler and Miller and concludes

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\* Scientific Section, San Francisco meeting.

that the American grown drug contains the active constituent, but that in most experiments the same care is not exercised in selecting the part corresponding to the official drug.

*Roth, George B.* Pituitary Standardization. A Comparison of the Physiological Activity of Some Commercial Pituitary Preparations. Hygienic Laboratory Bulletin, No. 100.

The author claims that the use of the excised uterus muscle from a virgin guinea-pig is the most sensitive and accurate method available for standardization purposes.

Of the various preparations tested, only those from two manufacturers had the same uniformly high activity.

*Focke.* Further Steps in the Standardization of Official Digitalis Preparations. Zeitschrift f. exp. Path. u. Therapie, vol. xvi, 1914, p. 443.

The author finds equally valuable the one-hour or the short-time variations of the frog heart method for digitalis.

He states that, for the purpose of assaying the leaves, it is unnecessary to exhaust with alcohol; an infusion with weak alkali extracts them more readily and is most rapidly absorbed by the test animal.

*Gottlieb, R.* The Method for Assaying Digitalis Preparations on Frogs. Münch. Med. Woch., vol. lxi, 1914, p. 813.

The author reviews the various methods and modifications proposed and dwells particularly on the difficulties due to the variable susceptibilities of the frog. This he finds to be seasonal and individual, modified by temperature.

He concludes that, because of the many sources of error, very considerable experience is necessary before uniform results may be expected from the use of any method.

*Gunn, John W. C.* The Influence of Temperature on the Action of Strophanthin on the Mammalian Heart. Journal of Pharmacology and Exper. Therapeutics, vol. xvi, Sept., 1914, p. 39.

The author concludes that on the isolated rabbit's heart strophanthin acts more quickly as the temperature rises, probably because the rate of flow through the coronary vessels is more rapid.

*Haskell, C. C.* The Influence of Temperature on the Results Secured by Houghton's Method of Assay for the Heart Tonics. Lilly Sc. Bulletin, vol. i, pp. 199-201.

The author found that this factor materially affects the M. L. D., the dose at 18° C. being about twice as great as at 25°-30° C.

*Pülcher and Sollman.* The Action of Ergot and Its Constituents on the Vasomotor Centre. Journal of Pharmacology and Exper. Therapeutics, vol. xvi, June, 1915, p. 385.

The authors conclude that these have no effect on the vasomotor centre, the rise in pressure following an injection being due to peripheral stimulation.

*Vanderkleed and Pittenger.* Variation in the Susceptibility of the Guinea-pig. JOURNAL A. PH. A., vol. iii, 1915, p. 815.

The authors find a variation of less than 20 percent between the extremes of minimum lethal doses for the Digitalis Series on guinea-pigs.

They conclude that the use of guinea-pigs for standardization of these drugs is the simplest and most satisfactory, eliminating the standardization of the test animal.

*Haskell, C. C.* The Physiological Activity of Ergotin and Powdered Extract of Ergot. JOURNAL A. PH. A., vol. iii, 1914, p. 786.

The author finds that both these preparations cause bluing of the cock's comb and contain practically all of the pressor activity of the crude drug.

*Haskell and Miller.* Influence of Heat and Method of Storing upon the Potency of Digitalis Leaves. JOURNAL A. PH. A., vol. iii, 1914, pp. 306-308.

The authors find that in a year these factors do not affect the activity of the drug.

*Crawford, A. C.* The Cock's-Comb Test for the Activity of Ergot Preparations. Journal Alumni College Phys. and Surg., Baltimore, vol. xvii, 1914-1915, pp. 4-14.

CHAS. R. ECKLER,  
PAUL S. PITTENGER,  
E. M. HOUGHTON, *Chairman.*

## REPORT OF THE SPECIAL COMMITTEE ON REGULATIONS FOR TRANSPORTATION OF DRUGS BY MAIL.\*

At the annual meeting held in Detroit in August of last year (1914), the Committee on Post Office Regulations for the Mailing of Poisons made a full report on the situation, taking up the causes of the unfortunate position in which we find ourselves and setting forth at length the laws and regulations governing, or rather preventing, the mailing of poisons. See JOURNAL AMERICAN PHARMACEUTICAL ASSOCIATION, February, 1915. The Committee's report was heard and accepted, and the Committee itself discharged. It was evident, however, that work of this kind, to be of value, must be continuing, and some weeks after the August meeting the Committee, slightly rearranged, was reappointed. It is now known as the Special Committee on Regulations for Transportation of Drugs by Mail.

The situation as depicted in our last previous report remains unchanged to-day, no new laws having been passed and no new regulations having been promulgated. It is still illegal to send poisons through the mails, even though they can be packaged in such a way as to make them safe for all that handle them. It is a daily occurrence that small parcels containing poisons must be handled by express and usually at greater expense, merely because we forbid ourselves the use of our parcel post. The express companies handle the packages with entire safety, both as to their employees and as to the goods. In the meantime our Post Office Department in Washington, instead of being allowed to increase its usefulness, is issuing statements showing millions of expense beyond its receipts.

It has been suggested by some that each individual take the subject up with his postmaster, urging an extension of the parcel post so that poisons may be handled through the mails. It might stimulate the Post Office Department to a closer consideration of the subject, if it were brought to the attention of the Department constantly by the postmasters themselves! If it were taken up on the basis of an extension of the parcel post, as well as a needed added facility in the drug business, it would perhaps be of value.

Your Chairman, who is writing this report because he feels it is only a report of progress, expresses the view of the Committee, as shown by correspondence, that two fields are open to us, and both must be cultivated. First, we must continue to voice our disapproval of present conditions, as we do from time to time, and second, exert our influence to secure the passage of a national poison law especially drawn to regulate interstate commerce in poisons. Handling poisons in the mails will naturally follow the enactment of such a law.

The Committee has made a study of the above two fields of operation during the year, and has noted with interest the attention that other bodies also are giving to the subject. It is therefore suggested that the work of the Committee be carried on through the coming year or years, recognizing at once that the work is likely to be lengthy. The Chairman would be glad to suggest one or two more names to add to the membership of the Committee.

Respectfully submitted,

B. L. MURRAY, *Chairman.*

Read in full by E. L. Newcomb. Report received to take usual course, moved to adopt Mr. Murray's suggestion that Committee be increased by two names to be suggested by Mr. Murray. August 12, 1915.

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\* Section on Education and Legislation, San Francisco meeting.