

completed, the results will be submitted to the state associations and others and such further steps taken as may be found advisable. The president of one of the state associations visited on this trip referred in his address to the importance of this question.

"Another very important organization was formed at the last A. PH. A. meeting known as the Conference of Pharmaceutical Association Secretaries. For some time it has been felt that much good could be accomplished if the secretaries of the state associations could be brought together annually for a discussion of association problems, and an organization formed through which information about programs, date of meetings, speakers, meeting arrangements, publications, etc., could be exchanged in the interim between meetings. During the year a constitution and by-laws have been adopted and the Conference will hold its first annual meeting in Portland, Me., at the time of the next A. PH. A. meeting the week of August 20-25. The dues are only \$5.00 and it is hoped that your Secretary will join and will take an active part in this organization which I believe will prove a most valuable one as it is easy to see how much each state association would gain if it could be informed about and kept in close touch with the work of the other 45 associations.

"Our committee on colored glass containers is doing a very important piece of work in cooperation with the pharmaceutical manufacturers and the Glass Container Association, in studying the effect of the container on the preparation put into it, and the best type of container. This work has already brought out some very valuable information and in the end should add considerable to the permanency of pharmaceutical preparations—a matter of great interest to manufacturers and wholesalers and especially to retail pharmacists.

"These brief references, I sincerely hope will acquaint you with some of the past activities and recent activities of the ASSOCIATION and I appreciate the opportunity to submit them. Let me ask again for a continuation of the support which the California Association has given the A. PH. A. in its work. We urge you to be represented at our annual meetings, as you have in the past, by delegates who are acquainted with your views and wishes and who will express them. The ASSOCIATION desires to be in close touch with the druggists of the country and to carry on its activities in such a way as to have their interest and support. The ASSOCIATION is theirs and its policies are in their control if they exercise their rights as to representation."

Secretary Kelly closed with general congratulatory remarks and expressions of appreciation for courtesies. As stated, the substance of this address entered largely into the addresses at other state conventions of the West and Pacific coast, hence his place on the program is referred to elsewhere without inclusion of remarks made by him.—E. G. E.

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## THE PRODUCTION OF PHARMACOPŒIAS IN VARIOUS COUNTRIES.\*

BY HUGH N. LINSTEAD.<sup>1</sup>

The Pharmaceutical Society of Great Britain in October last, with the assistance of the Bureau of the International Pharmaceutical Federation, obtained from fifteen different countries particulars of the methods by which the Pharmacopœias of those countries are produced and at the suggestion of the Secretary-General, J. J. Hofman, of the Federation the replies have been summarized and are here set out for the information of readers of the *Bulletin*.

It will be seen that in almost all of the countries the Pharmacopœia is produced either under the direct supervision of one of the Departments of State or by a Committee appointed by the government for the purpose. The noteworthy exceptions are the United States of America and Great Britain. In the former country the Pharmacopœia is not produced under direct government authority but is accepted by the Government as a standard after its publication. In Great Britain the production of the Pharmacopœia is by Act of Parliament entrusted to the General Medical Council who in turn hand over the work to a Pharmacopœia Committee consisting of Members of the Council. There is at the time of writing a committee sitting in Great Britain which is enquiring into the methods of production of the Pharmacopœia with a view to seeing whether some alteration of the present method may not be desirable. It will be noticed that in

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<sup>1</sup> Secretary Pharmaceutical Society of Great Britain.

most countries the work has not hitherto been continuous, but in America, France and Germany arrangements for permanent work have been made. The majority of the pharmacopœias are not published at regular intervals and in those countries where a statutory interval is prescribed it has not been found possible to adhere to it with regularity.

The constitution of the Commissions in the various countries so far as is ascertainable from the particulars received is summarized in the following table:

	Phar- macists.	Medical practi- tioners.	Others.	Total.		Phar- macists.	Medical practi- tioners.	Others.	Total.
Belgium.....	6	3	—	9	Italy.....	4	4	14	22
Czechoslovakia.....	21	10	11	42	Norway.....	3	3	—	6
Finland.....	2	1	—	3	Roumania.....	4	1	1	6
France.....	2	1	—	3	Spain.....	4	4	1	9
Great Britain.....	—	13	—	13	Sweden.....	3	3	1	7
Greece.....	9	10	3	22	Switzerland.....	6	3	4	13
Hungary.....	3	2	3	8	United States.....	11	15	25	51

**Belgium.**—The Pharmacopœia is published by the government. The Pharmacopœia Commission of nine members appointed for a period of three years is a permanent commission and is at present composed of six pharmacists and three doctors of medicine; its work is not continuous. There is no statutory requirement of the intervals between editions, although a Royal Decree provides for the publication of a supplement every three years, but does not make it compulsory. Editions were published in 1854, 1885 and 1906 and supplements in 1892 and 1912.

**Bulgaria.**—Since 1878 the Russian Pharmacopœia has been used in Bulgaria.

**Czechoslovakia.**—The Pharmacopœia is prepared by a Commission divided into four sections—chemistry, pharmacology, galenical pharmacy and serology and bacteriology. It has forty-two members—twenty-one pharmacists, four professors of Chemistry, four professors of Botany, ten professors in the Faculty of Medicine, two professors in the Polytechnic, one professor in the Veterinary High School and two Barristers. The first edition will be completed in 1927<sup>1</sup> and will supersede the Austrian and Hungarian Pharmacopœias which have been in force since 1918.

**Finland.**—The Pharmacopœia is published by the Board of Health under the authority of the Government. The Pharmacopœia Commission is composed of two pharmacists, a professor of medicine and a secretary, who is a pharmacist. Research and laboratory work is undertaken only at the time of a new edition or supplement. There is no definite interval for the publication of new editions and a new edition for which work is now in progress will probably be published two or three years hence.

**France.**—The Pharmacopœia is published by the government, which nominates a committee to prepare it. The Committee responsible for preparing the last edition (1908) was composed of sixteen members, ten of whom were pharmacists. In 1926 a permanent laboratory for the Pharmacopœia Committee was established, the work having been previously carried on in the laboratories of members of the Committee. New editions of the Pharmacopœia and supplements appear irregularly; since 1908 four supplements have been published.

**Germany.**—The editing of the German Pharmacopœia is in the hands of sections of the Imperial Board of Health working in collaboration with a Committee of the Imperial Health Senate. Experimental, chemical, pharmacological and pharmacognostical researches are undertaken by workers in their special branches in the laboratories of the Imperial Board of Health. Editions are generally published at intervals of ten years and as the work is continuous a supplement of the existing work could be produced at short notice, if required.

**Great Britain.**—Former editions of the British Pharmacopœia have been produced by a Committee of medical practitioners appointed by the General Medical Council, to which body the preparation of the book is entrusted by law. The Pharmacopœia Committee has appointed Committees of Reference in Pharmacy and expert referees in other subjects but there has been no organized continuous research work in the intervals between editions. The last edition appeared in 1914 and there is at the present moment a committee considering whether some modifications in the present methods should not be adopted in the preparation of future editions.

<sup>1</sup> This report was made in 1927.

**Greece.**—The Pharmacopœia has been produced by a committee of twenty-two members appointed by the Ministry of the Interior, consisting of ten physicians, nine pharmacists, two chemists and one veterinary surgeon. For the compilation of the work a sub-committee of twelve was selected, and to these were added ten advisory members, mostly University Professors. The first Greek Pharmacopœia appeared in 1837 and a reprint in 1868.

**Hungary.**—The Pharmacopœia Commission consists of two commissions—an Editorial and a Controlling. The Commission is nominated by the Superior Health Department at such times as a new Pharmacopœia is to be produced. The Pharmacopœia is published under government control. In future there will probably be continuous work although this has not been so hitherto. Formerly the Pharmacopœia was revised every ten years, but the last (third) edition came into force on January 1, 1910, and it has not been possible to publish the fourth edition until this year.

**Italy.**—The Pharmacopœia is revised by a government Commission composed of four doctors, four pharmacists, one veterinary surgeon, two botanists, three pharmacologists, one physiologist and seven chemists selected from the professors of Pharmaceutical Chemistry of the Royal Universities. Research work is not continuous, but it is proposed to make the Commission a permanent one. The Pharmacy Act of May 1913 requires the revision of the Pharmacopœia to be undertaken every five years. Up to the present time supplements have not been published.

**Luxembourg.**—The German Pharmacopœia has been used in Luxembourg since 1841.

**Norway.**—The Pharmacopœia is published by a government Commission. The Commission is permanent and is composed of three doctors and three pharmacists. Research work is not continuous but only undertaken at the time when a new edition or supplement is published. The third edition of the Pharmacopœia appeared in 1895 and the fourth in 1913 but no time has yet been fixed for the preparation of a new edition.

**Roumania.**—The Pharmacopœia is published by the Ministry of Health under a Royal Decree. It is prepared by a Commission composed of a professor of Therapeutics, a professor of Pharmacology, two professors of the Faculty of Pharmacy and two practicing pharmacists. Research and other work is undertaken at the time of the publication of each edition. The fourth edition of the Pharmacopœia has just appeared.<sup>1</sup>

**Spain.**—The publication of the Pharmacopœia is entrusted to a committee of the Royal Academy of Medicine, consisting of four doctors, four pharmacists and one veterinary surgeon. Research and other work is undertaken only when a new edition is in course of preparation. A new edition of the Pharmacopœia should appear every ten years, but it is found that publication is delayed by the difficulty of completing the work within the necessary time.

**Sweden.**—The Pharmacopœia is published by the Administrative Board of the State Health Services. There is a permanent Pharmacopœia Committee which at the present time is composed of three doctors, three pharmacists and one veterinary surgeon. The work is not permanent but it is undertaken when a new edition of the Pharmacopœia or a supplement appears to be needed.

**Switzerland.**—The compilation of the Pharmacopœia is entrusted by the Federal Council to a Commission constituted as follows: three professors of Pharmacognosy and Pharmaceutical Chemistry, one professor of Pharmacology, three physicians (including the Director and Adjunct of the Health Department) and six pharmacists (including the Military Pharmacist). The Commission is divided into Sub-Commissions for Chemistry, Drugs and Galenicals. At present there is no permanent Pharmacopœia Commission. There is no prescribed interval between the editions, the revision being conducted as required.

**United States of America.**—The Pharmacopœia is revised by a committee of fifty-one, the publication and business details being controlled by a Board of Trustees. The Pharmacopœia is accepted by the Government as a standard for drugs and medicines under the Food and Drugs Act. The Committee of Revision consists of fifteen clinical physicians, two serologists, four pharmacologists, eleven pharmacists, fifteen pharmaceutical chemists<sup>2</sup> and four botanists. The Committee of Revision has no laboratory for research, but depends upon the coöperation of the laboratories of the Government, of universities and colleges, of industrial organizations having research departments and of private persons. Continuous research work is thus undertaken and a Pharmacopœia is usually published every ten years.

<sup>1</sup> 1927.

<sup>2</sup> Could be classed as pharmacists; this also applies to several of other groups.