View Article Online / Journal Homepage / Table of Contents for this issue

Notes from the Reports of Public Analysts.

The Editor would be glad to receive the Annual or other Reports of Public Analysts containing matter of interest to the Society. Notes made from such Reports would be submitted to the Publication Committee.

REPORT OF THE BIRMINGHAM CITY ANALYST FOR THE THIRD QUARTER, 1921.

"BEES' WINE."—A sample of "bees' wine" which had been fermented for some time contained 21 per cent, of proof spirit. Some of the ginger-beer plant was taken from it, and used to ferment a solution of treacle and sugar. After 26 days it contained 12·1 per cent. of proof spirit.*

BORIC ACID IN MILK.—Four informal samples, taken at one time, contained 47, 51, 37, and 40 grains of boric acid per gallon. The vendor was cautioned, and eight samples subsequently taken were free from preservative. At one time preservatives were very common in Birmingham milk, but none have been detected during the last eight years.

BORIC ACID IN CAKE.—Twenty informal samples of cake were taken as the result of a suggestion made by the Ministry of Health that liquid eggs, which contain boric acid, were being used in its manufacture. Each of the samples contained boric acid, but the Ministry of Health was unable to suggest what the permissible quantity should be. Since one of the constituents of cake may be margarine, which usually contains boric acid, cake may legitimately contain a small amount of boric acid. From a consideration of the analyses of these samples the conclusion was drawn that the amount of boric acid in cake should not exceed 0·1 per cent., and the following four samples were therefore classified as adulterated: Genoa cake, containing 0·12 per cent.; seed cake and Madeira cake (from the same vendor), 0·26 and 0·22 per cent. respectively; and Madeira cake, 0·31 per cent. of boric acid.

MILK AND CREAM REGULATIONS.—CREAM: Eight samples of cream were free from boric acid, seven contained 0·2 to 0·4 per cent., and should therefore have been sold as preserved cream; and one sample contained 0·9 per cent. Only one of the five of preserved creams complied with the Regulations as to labelling. None of them exceeded the limit of 0·4 per cent. of boric acid.

ANNUAL REPORT OF THE SOMERSET COUNTY ANALYST, 1920.

The total number of samples examined was 1057, of which 56 were reported as adulterated. The dairy products included 546 samples of milk.

NON-ALCOHOLIC WINES.—Four of the seven samples examined contained salicylic acid (2·9 to 5·0 grains per pint); a conviction was obtained in the case of a sample containing 5 grains per pint. Action was taken against the vendor of a sample containing 7 per cent. of alcohol, but the case was dismissed; a fine of £2 was inflicted for the sale of a non-alcoholic wine containing 11·2 per cent. of alcohol.

* The so-called "bees" consist of a ginger-beer yeast in symbiotic growth with lactic acid organisms. During the past year such cultivations have been extensively sold for preparing home-made wine; a few crushed raisins are usually added to the sugar solution to give a flavour to the fermented product.—EDITOR.

Published on 01 January 1922. Downloaded on 30/10/2014 14:11:54.

View Article Online

Published on 01 January 1922. Downloaded on 30/10/2014 14:11:54.

BORIC ACID.—Of 24 samples of butter, 14 contained boric acid (0·02 to 0·3 per cent.); two samples of margarine contained 0·2 and 0·23 per cent.; 14 samples of sausages out of 18 examined contained 0·08 to 0·62 per cent.; five samples out of 10 of brawn contained 0·11 to 0·5 per cent.; and eight out of 13 of potted meat and fish contained 0·15 to 0·03 per cent.

BACTERIOLOGICAL WORK.—The 7870 samples examined included 469 drinking waters, 5101 swabs for diphtheria, 1308 of sputum for tubercle bacilli, 116 of blood for typhoid and paratyphoid, 526 of hair and skin for ringworm, 130 specimens for venereal disease, 36 of fæces for typhoid, paratyphoid and dysentery; 55 of wine, and 21 of blood and meat for bacterial food poisoning. The year 1920 was an epidemic year for diphtheria, and 1013 of the swabs examined showed the presence of diphtheria bacilli. Ringworm fungi were found in 65·8 per cent. of the samples of hair, and gonococci in 25·4 per cent. of the venereal specimens.

DENYS R. WOOD.

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY.

SECOND CONFERENCE.

THE second conference of the International Union of Pure and Applied Chemistry was held in Brussels from June 27th to 30th, 1921, under the presidency of Professor Moureu. The countries represented were: Argentina, Belgium, Canada, Czeko-Slovakia, Denmark, France, Great Britain, Greece, Holland, Italy, Japan, Jugo-Slavia, Monaco, Norway, Poland, Portugal, Roumania, Spain, Switzerland, United States, and Uruguay. There were in all 82 delegates; the British representatives were Sir William Pope and Messrs. Lowry and Miall.

Chemical Elements.—On the motion of Sir William Pope a Commission for Chemical Elements was nominated for three years, its objects being: (1) To draw up tables of atomic masses, isotopes and radioactive elements; (2) to fix and apply the rules according to which modifications may be made in these tables; (3) to make arrangements for research. The Commission, which was restricted to 12 members, will ask the countries within the Union to appoint Co-operating National Commissions.

Chemical Nomenclature.—A similar organisation was formed to deal with chemical nomenclature, and this was sub-divided into three separate commissions for mineral chemistry, organic chemistry and biological chemistry respectively, each having delegates from each country; in each case working committees were formed and charged with the duty of organising national committees to study the subject.

Bibliographic Abbreviations.—A motion was accepted that enquiries should be made whether the principal chemical journals of the countries in the Union would be willing to accept the abbreviations used in *Chemical Abstracts* published by the American Chemical Society, and that the result should be communicated to the Union at their session in 1922. The offer of M. P. Pondal, of the Argentine Chemical Society, to make these enquiries, was accepted.

Chemical Abstracts.—The Dutch National Council presented a report, in which it was recommended that the Bureau of the International Union should take the initiative in bringing together representatives of the various chemical journals which publish abstracts, with a view to discussing the possibility of producing a central publication, and the expense of establishing an international organisation tor the purpose. These recommendations were adopted.

View Article Online

International Institute of Chemical Standards.—It was decided that, in order to prevent confusion, the following titles should be reserved for the three sections of the Institute: (*A*) Bureau of Physico-Chemical Standards (with headquarters in Brussels); (*B*) Pure Products for Research (with headquarters in England); (*C*) Bureau of Publications on Industrial and Technological Products (headquarters in Paris. The National Committee of each country in the Union is invited to nominate among its members a correspondent for each of the three Sections. The Conference requested the Council of the Union to obtain an annual subsidy of 10,000 francs to facilitate the work of the Bureau of Physico-Chemical Standards.

Commission on Thermo-Chemical Standards.—A recommendation was adopted that in all publications on thermo-chemistry the substance used to standardise the calorimeter should be given; it was decided that the methods of determining the heat of combustion of the substance chosen as the standard should be made the subject of a separate report.

Tables of Constants.—A report on the arrangement of tables of constants was adopted.

International Laboratory for the Analysis of Foods.—It was announced that the French Parliament had passed a bill ratifying the international conventions signed by the International Union at its first Conference in 1912, comprising: (1) Unification of the methods of presenting the results of the analysis of products intended for food for man or animals; (2) Establishment in Paris of a permanent bureau concerned with the analysis of such products. The Conference requested the Bureau of the Union to communicate these facts to all the officially associated organisations, with the object of each of them obtaining the same ratification by the Governments of their respective countries.

Ceramic and Combustible Products.—The Commission recommended that a national laboratory for the study of combustible products should be established in each country of the Union, and pointed out that it was possible and desirable for questions relating to ceramic or refractory products to be investigated by a special section connected with this laboratory. These recommendations were adopted.

International Patents.—The recommendation of the Commission that the Union should take the initiative in calling a conference to establish an international patent was accepted.

Hygiene in Chemical Industry.—A recommendation was made to the effect that instruction in hygienic questions as affecting industry, and especially chemical industry, should be given to doctors, chemists, and engineers attending the higher technical classes. The Commission was also of opinion that the methods of protection to be adopted in works should be brought to the notice of the public, and recommended the *Revue Internationale d'Hygiène Publique* as a suitable journal for the purpose.

It was decided that the third Conference should be held in 1922 in a French town, to be announced later by the *Fédération Nationale des Associations de Chimie*, the official French organisation in the Union.

GOVERNMENT ANALYTICAL LABORATORY, CAIRO.

REPORT OF THE DIRECTOR FOR THE YEAR 1920.

THE Director of the Laboratory, Mr. A. Lucas, O.B.E., F.I.C., states that nearly 90 per cent. of the total laboratory staff of 165 are Egyptians. The higher technical

Published on 01 January 1922. Downloaded on 30/10/2014 14:11:54.

View Article Online

posts are still held by Europeans, but in 1920 a scheme for training Egyptian chemists received official sanction, and the classes were started in the autumn of this year. This is the first step towards making Egypt independent of outside aid in the practical applications of chemistry.

CHEMICAL AND PHYSICAL INSPECTION OF MATERIALS.—The total number of samples examined was 4721, as compared with 5138 in 1919, the decrease being more than accounted for by the great reduction in the tests for gas (a result of strikes and difficulties of fuel supply). Gross adulteration of Government stores was less frequent than in the past, but in most classes of goods there was a noticeable absence of samples of first rate quality, so that it would appear that Egypt is still being made the dumping ground for a good deal of low grade material.

Stationery.—In the annual adjudication of the Stationery Office there was relatively less competition by European firms than before the war, and locally-made materials were frequently better and cheaper than European products. The quality of paper, however, was distinctly below pre-war standard. In all 532 samples were examined.

Building Materials.—The number of cement samples tested was more than double that of the previous year. Practical tests of various proprietory articles claimed to render cement waterproof showed that any slight improvement in the water-resisting quality of the cement or cement mortar was usually accompanied by a considerable reduction in the tensile and "crushing" strength. Of the 413 samples of paint examined a large proportion was unsatisfactory. Many contained heavy mineral oil, and others were excessively thin. The problem of finding a suitable green paint which will withstand the Egyptian sun still remains unsolved. At present paints of the Brunswick green type, composed of lead chromate, iron blue and barium sulphate, are almost exclusively employed, and usually there is an excessive proportion of barium sulphate. Stone from various parts of the country was examined to ascertain its suitability for the headstones of soldiers' graves. The Laboratory was also consulted on the best method of making a new design of boundary mark in cement concrete.

Kerosene.—Fifty-four samples were examined. Although the average flash-point was above the Government Specification (100°F.), there were several for which the figures were too low. There is, as yet, no means of controlling the quality of the oil sold to private consumers.

Alcoholic Liquors.—Sixty-four per cent. of the samples of brandy and 6 per cent. of the samples of whiskey taken by the police from retail establishments were not genuine, whilst 25 per cent. of the samples of wine were adulterated with artificial colouring matters. Various convictions were obtained, and, as a rule, the adulterated liquors were destroyed. Essences and extracts intended for use in the manufacture of alcoholic beverages were taken by the Customs Administration at Egyptian ports. These were generally of artificial chemical origin, and, as it was obvious that many of them were intended for addition to plain spirit, their admission to the country was refused under the terms of the prohibition contained in the Military Proclamation of May, 1915.

Minerals.—Various specimens of Egyptian minerals were analysed, including red and black iron oxide, raw and burnt umber and sienna, and red and yellow ochre from Aswân. These were all of good quality, and the deposits would be worth working if the cost of transport and treatment were not excessive.

Legal Chemistry and Criminal Investigation.—Investigations were made in connection with 62 cases involving firearms, projectiles and bombs (including the examination of the fragments of bombs thrown at four different Ministers during the year), 17 seal impressions, 75 questioned documents, 9 forged banknotes, and 5 cases of counterfeit coins (305 articles).

Published on 01 January 1922. Downloaded on 30/10/2014 14:11:54.

View Article Online

The investigation of the documents included chemical and microscopical examination of the paper, inks and stains or discolorations, and, in some cases, a comparison of handwriting. There was evidence that some of the forged bank-notes had been manufactured abroad.

Miscellaneous Samples.—Other samples examined included 177 of textile materials, 14 of tobacco, 227 of industrial waters, 55 of soap, candles and waxes, and 132 of a miscellaneous character.

TECHNICAL RESEARCH CONSULTATIONS.—The greater part of the consulting work was in connection with the investigation and development of the petroleum resources in Egypt. Questions relating to the safe storage and handling of petroleum were also dealt with. Other consultative work had reference to fire outbreaks and risks, and to the conditions under which certain explosives were stored.

EXPERIMENTAL RESEARCH.—A special staff was occupied with research work on Egyptian crude petroleum, and the methods of producing refined products from it. Some research was also undertaken on a process for the simultaneous production of Portland cement and sulphuric acid from gypsum and clay, in accordance with a scheme developed in Germany in 1914–1918.

Published on 01 January 1922. Downloaded on 30/10/2014 14:11:54.

PHARMACY ACTS AMENDMENT BILL.

A BILL "to regularise the position of all persons trading as chemists and druggists or pharmacy store proprietors in the sale of drugs, the dispensing of doctors' prescriptions, and the sale of patent medicines" was ordered by the House of Commons to be printed, November 3, 1921. It consists of 16 Clauses.

1. Clause 1 restricts the use of the word "Chemist" to such persons as shall be Chemists within the meaning of this Act, provided that any person now entitled to describe himself as a Chemist and Druggist, Pharmacist or Dispensing Chemist shall continue to be entitled to use so much of such title as does not include the word Chemist.

2. (1) "On and after January 1, 1925, the Incorporated Society of the Institute of Chemistry shall alone possess the power to authorise any person to assume or use the title "Chemist," and shall from time to time appoint competent persons to conduct examinations for the purpose of granting persons permission or authorising persons to assume or use the title of "Chemist."

Persons granted certificates by the Examiners shall be entitled to register as "Chemists."

(2) An officer appointed by the Privy Council may be present at such examination.

(3) Examination and registration fees to be fixed by bye-laws made by the Council of the Institute of Chemistry.

Clause 5 provides that there shall be a Central Council of 16 members, four of whom shall be appointed by the British Medical Association, four by the Institute of Chemistry, four by the Pharmaceutical Society, and four by the Incorporated Society of Pharmacy and Drug Store Proprietors of Great Britain, Ltd., together with a chairman who shall be appointed by and be a member of the Privy Council.

Clauses 6 and 11 provide for the examination and registration of pharmacists by the Central Council, and the other clauses deal with the power of the Pharmacy Society to conduct examinations, with provisions for the sale of poisons, with restrictions on advertisements, and with penalties for failure to observe the regulations of the Act.

Referring to this Bill the Registrar and Secretary of the Institute of Chemistry has sent the following letter to the press:

PHARMACY ACTS AMENDMENT BILL.

22nd November, 1921.

SIR.—I am instructed by the Council of the Institute of Chemistry of Great Britain and Ireland to direct your attention to the following letter which

View Article Online

has been addressed to Capt. James O'Grady, J.P., M.P., Col. D. Watts Morgan, D.S.O., M.P., and Mr. Thomas W. Casey, M.P.—I am, Sir, your obedient servant,

RICHARD B. PILCHER.

PHARMACY ACTS AMENDMENT BILL

17*th November*, 1921.

SIR,—The attention of the Council of the Institute of Chemistry of Great Britain and Ireland has been directed to "a Bill to regularise the position of all persons trading as chemists and druggists or pharmacy store proprietors in the sale of drugs, the dispensing of doctors' prescriptions, and the sale of medicine."

The official print states that the Bill was presented by Captain O'Grady, and supported by Colonel Watts Morgan and Mr. Casey.

In this Bill reference is made to "the Incorporated Society of the Institute of Chemistry" and to "the Institute of Chemistry."

The Institute of Chemistry of Great Britain and Ireland is the only body in this country incorporated by Royal Charter whose title contains the words "Institute of Chemistry," and the Council of the Institute desire me to inform you that they have not been consulted with regard to the provisions of this Bill and have not had any information regarding its promotion.

The Institute of Chemistry is established to examine and register persons found competent to practise chemistry in its applications to the arts and manufactures, as distinct from those who practise pharmacy and are engaged in the sale of drugs and medicines, and in the dispensing of prescriptions.

The Council of the Institute deplore the confusion which arises through the application of the term "chemist" to two distinct callings, and they would welcome any legislation which would tend to remove this confusion. They hold that the use of the distinctive titles of "chemist" and "pharmacist" to denote these callings would tend to the general recognition of the difference between them and to the removal of a confusion which exists in no other country.

The Council wish to dissociate themselves from the suggestion that they should be represented on the Central Council, which it is proposed in the Bill shall be concerned with the Pharmaceutical Register, and from taking any part in the examination and registration functions, vested by Royal Charter and the Pharmacy Acts in the Pharmaceutical Society of Great Britain. The Council do not feel called upon at present to comment upon the other provisions of the Bill.—I remain, Sir, your obedient Servant,

(*Signed*) RICHARD B. PILCHER, *Registrar and Secretary*.

Published on 01 January 1922. Downloaded on 30/10/2014 14:11:54.