

with serum, 5-10 times higher doses of CX must be added. This is in conformity with Paul Ehrlich's experiments, in which serum was found to hinder the activity of halogenized phenols. From our experiments it is apparent that this inhibitory effect is due to proteins, since after addition of serum-protein to bouillon, higher amounts of CX were needed to inhibit the growth of bacteria, as compared with clear bouillon. After treatment with CX, it is the whole blood and not the serum that possesses antibacterial properties. We may thus conclude that CX, or a substance derived from it, attaches itself to the red blood corpuscles. The blood bactericidity of CX, which was examined in 500 cases, begins after 24 hours, at a time when no CX, or only a small amount of it, is present in the blood. We may thus assume that the active antibacterial substance is formed in the blood and is possibly not identical with CX. The bactericidal substance is bound to the red blood corpuscles since bactericidity disappeared once the erythrocytes hemolized.

The clinical results obtained with CX will be reported in detail elsewhere. Here we may briefly note the following. The percutaneous application of 15 per cent CX ointment is an excellent means for the disinfection of the operative field, the skin remaining sterile for 12 hours. By the percutaneous application of 3 gm. CX, an antibacterial activity of the blood is simultaneously provoked, thus providing some protection against possible post-operative infection. Since this anti-bacterial effect lasts for 24-48 hours, a further application of CX is advisable. The same is true of its use in obstetrics. In these cases at least 3 gm. of the active substance must be rubbed in the vulva, in order to combine the disinfection of the external genital organs with an antibacterial effect in the blood.

We have obtained most encouraging results in the treatment of urogenic infections (cystitis, pyelitis). Infections due to staphylococci and proteus react particularly well, and a disinfection of the urine is obtained. Infections due to *B. coli* react clinically well, that is, the symptoms disappear after a short time, but in most cases the *B. coli* are not destroyed, a bacteriostatic effect thus being obtained. The treatment lasts five days, the daily dose of CX amounts to 10-20 gm., which is given percutaneously with 1-2 gm. parenterally.

Up to now we have treated seven cases of puerperal septic infections. In two cases of streptococcal pyæmia, the treatment failed to give good results. In the other five cases the patients recovered. These included two cases of staphylococcal pyæmia. In septic general infections the treatment—mostly percutaneous—should last at least fourteen days. Our experience in the treatment of other infectious diseases is still limited.

It should be especially emphasized that treatment with halogenized phenols in man is harmless and causes no secondary effects.

¹ Zondek, B., *Klin. Wschr.*, **9**, 2285 (1930).

² Bechhold, H., and Ehrlich, P., *Z. phys. Chem.*, **47**, 173 (1906).

³ Schottelius, M., *Munch. Med. Wschr.*, **59**, No. 49 (1912); Raschig, F., *Z. angew. Chem. Ztbl. tech. Chem.*, **38**, 1939 (1912).

⁴ Colebrook, L., *J. Obst. and Gyn. British Emp.*, **40**, No. 6 (1933); *Brit. Med. J.*, 723 (1933).

⁵ Klarmann, E., Shternov, V. A., and Gates, L. W., *J. Amer. Chem. Soc.*, **55**, 2576 (1933); Lockemann, G., and Kunzmann, Th., *Angew. Chem.*, **46**, 296 (1933); *Ztbl. Bakteriol.*, **1**, **145**, 61 (1933).

⁶ Zondek, B., *Klin. Wschr.*, **8**, 2229 (1929); *Schweiz. med. Wschr.*, No. 49 (1935).

FOLK-LORE OF ERUPTIVE FEVERS

AT a meeting of the Section of the History of Medicine of the Royal Society of Medicine on February 4, Dr. J. D. Rolleston read a paper on the folk-lore of eruptive fevers, in which he said that during the last two Congresses of the International Society of the History of Medicine held at Madrid in 1935 and at Zagreb and Belgrade in 1938, medical folk-lore formed a considerable part of the proceedings. In contrast with some diseases, particularly whooping-cough, pulmonary tuberculosis, skin diseases, especially warts, and eye diseases, the folk-lore of the eruptive fevers is somewhat scanty.

The abundance of folk-lore connected with each exanthem appears to be directly related to the antiquity and importance of the disease, so that the amount of folk-lore of smallpox, measles, scarlet fever and chicken-pox is represented in the order named. There does not seem to be any folk-lore connected with German measles, which did not receive general recognition as an independent disease until after the International Congress of Medicine held in London in 1881.

As regards the causation of the acute eruptive fevers there do not appear to be any popular causes for their occurrence, such as catching colds, sexual excess, or punishment for an evil life, as in the case of pulmonary tuberculosis, skin diseases and venereal diseases. With the exception of smallpox, none of them has been assigned a divine origin. In accordance with medical folk-lore generally, prophylaxis was rarely employed in the acute exanthemata except smallpox. There were many examples of the same treatment being applied to the eruptive fevers generally, such as overheating the patient or flagellation with nettles with the object of bringing out the rash, the use of red blankets and bed-hangings and coprotherapy.

As regards the causation of smallpox, numerous examples were given by Sir James Frazer and others of outbreaks of smallpox in different parts of the world being attributed to a goddess or, much more rarely, to a god, and of the various means employed to win their favour or prevent their visitation. Examples were also given of the avoidance of calling the deity or the disease by its proper name and using instead some more or less euphemistic words or phrases. The supposed transfer of smallpox to animals, plants and inanimate objects in accordance with folk-lore practice in other diseases was also described. Prophylaxis of smallpox by inoculation was a folk-lore method carried out by old women in Turkey long before it was adopted by the medical profession in Great Britain and France. Besides overheating the patient, the folk-lore treatment of smallpox consisted mainly of animal and plant remedies and the invocation of patron saints.

There are more popular errors concerned with measles than with any of the other acute exanthemata, such as the belief that it is a trivial disease, that it cleans out the system and makes the child less liable to contract other diseases, and that patients should not be washed, owing to the delusion that such an act tended to drive the rash inwards. In none of the acute exanthemata is coprotherapy more frequently employed than in measles, especially in the early stage of the disease. There were several examples of the belief that measles could be best treated by transfer of the disease to animals and plants, and apart from any idea of transfer numerous

folk-lore remedies were supplied by animals, plants and minerals.

Doubtless owing to scarlet fever having been isolated as an independent disease much later than smallpox or measles, its folk-lore is much less than that of the other two diseases. Popular errors connected with it included the view that the term 'scarlatina' meant a mild form of the disease, that second attacks did not occur, and that a mild attack could transmit only a mild attack to another person. Instances are occasionally met with in which scarlet fever was supposed to be transferred to animals, such as a dog, bear or sheep. Amulets were sometimes worn for prevention of the disease. There does not appear to be any patron saint connected with scarlet fever as in smallpox or measles.

Although chicken-pox is probably as old as smallpox, owing to its usually mild character and uncomplicated recovery very little folk-lore is connected with this exanthem, but it has had a large number of popular synonyms which are out of proportion to its real significance. The term 'chicken-pox' was first used in medical literature in 1694 by Richard Morton, who spoke of a form of smallpox "called in the vernacular the Chicken-Pox". Fuller also in 1730, in a paragraph in his "Exanthematologia", wrote: "I have adventur'd to think that this is that which among our women goeth by the name of Chicken-pox."

Another example of folk-lore anticipating scientific medicine is furnished by the fact recently mentioned by W. N. Pickles that the connexion between herpes zoster and chicken-pox was known at Aysgarth in Yorkshire long before this connexion was demonstrated by Bokay in 1892.

FORTHCOMING EVENTS

(Meetings marked with an asterisk are open to the public)

Friday, March 20—Saturday, March 21

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (DIVISION FOR THE SOCIAL AND INTERNATIONAL RELATIONS OF SCIENCE) (at the London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1).—Conference on "European Agriculture: Scientific Problems in Post-War Reconstruction".

Friday, March 20

10.15 a.m.—"Measures for Reconstruction". (Chairman: Sir John Russell, F.R.S.)

2.15 p.m.—"Economic and Kindred Problems". (Chairman: Mr. F. L. McDougall.)

Saturday, March 21

10.15 a.m.—"The Future Betterment of European Farming". (Chairman: Dr. A. J. Drexel Biddle.)

2.15 p.m.—(Chairman: Sir John Russell, F.R.S.)

Monday, March 23

ROYAL SOCIETY OF ARTS (at John Adam Street, Adelphi, London, W.C.2), at 1.45 p.m.—Mr. H. P. Rooksby: "X-Ray Technique in the Industrial Laboratory". (Cantor Lecture, 2; Subsequent lecture on March 30.)

ROYAL GEOGRAPHICAL SOCIETY (in the Kinematograph Theatre of the Imperial Institute, Prince Consort Road, London, S.W.7), at 5 p.m.—Geographical Sound Films, by courtesy of the Belgian Government: "Nos Soldats d'Afrique"; "Musée du Congo Belge"; and "Sous l'étoile d'or", with commentary in French.

Tuesday, March 24

ROYAL INSTITUTION (at 21 Albemarle Street, London, W.1), at 2.30 p.m.—Sir Lawrence Bragg, F.R.S.: "Metals", 4: "Strength and Flow of Metals".*

Wednesday, March 25

GEOLOGICAL SOCIETY OF LONDON (at Burlington House, Piccadilly, London, W.1), at 3 p.m.—Annual General Meeting. Prof. H. L. Hawkins, F.R.S.: "Some Episodes in the Geological History of the South of England" (Anniversary Address).

Thursday, March 26

INSTITUTION OF NAVAL ARCHITECTS (at the Royal Society of Arts, John Adam Street, Adelphi, London, W.C.2), at 2.30 p.m.—Eighty-third Annual Meeting. 3 p.m.—Sir Stanley V. Goodall, K.C.B.: "Sir Charles Parsons and the Royal Navy" (Parsons Memorial Lecture).

ROYAL INSTITUTION (at 21 Albemarle Street, London, W.1), at 2.30 p.m.—Sir Lawrence Bragg, F.R.S.: "Physicists after the War".*

SOCIETY OF CHEMICAL INDUSTRY (FOOD GROUP) (JOINT MEETING WITH THE BRISTOL SECTION) (in the Chemical Department, the University, Bristol), at 6.30 p.m.—Prof. F. L. Engledow: "Science and the Land" (Jubilee Memorial Lecture).

Friday, March 27

INSTITUTION OF CHEMICAL ENGINEERS (at the Connaught Rooms, Great Queen Street, London, W.C.2), at 11 a.m.: Twentieth Annual Corporate Meeting.

APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

PRINCIPAL OF THE TECHNICAL COLLEGE, COATBRIDGE—The Director of Education, Lanarkshire House, 191 Ingram Street, Glasgow, C.1 (March 25).

DEPUTY SUPERINTENDENT, Telegraph Works, Calcutta, for duties as PRODUCTION ENGINEER FOR TOOL AND LIGHT MACHINE SHOPS—The Secretary, Central Register (Section D.261), Ministry of Labour and National Service, Queen Anne's Chambers, Westminster, London, S.W.1 (March 28).

ASSISTANT IN THE NUTRITION DEPARTMENT—The Secretary, Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, London, W.C.1 (April 7).

ASSISTANT (MALE) TO THE PUBLIC ANALYST—The Secretary, Health Department, Grey Friars, Leicester.

PROFESSOR OF CIVIL ENGINEERING AND DIRECTOR OF THE SCHOOL OF ENGINEERING at Canterbury College, Christchurch, New Zealand—The Secretary, Universities Bureau of the British Empire, c/o University College, Gower Street, London, W.C.1.

REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

Great Britain and Ireland

Economic Proceedings of the Royal Dublin Society. Vol. 3, No. 9: Notes on some Lepidopterous Pests on Fruit Trees, and their Parasites, in Ireland during 1941. By Dr. Bryan P. Beirne. Pp. 107-118. (Dublin: Hodges, Figgis and Co., Ltd.; London: Williams and Norgate, Ltd.) 1s. [172]

Committee on Skilled Men in the Services. Second Report and a Memorandum by the War Office. (Cmd. 6339.) Pp. 74. (London: H.M. Stationery Office.) 1s. 3d. net. [232]

Carnegie Trust for the Universities of Scotland. Fortieth Annual Report (for the Year 1940-41) submitted by the Executive Committee to the Trustees on 16th February 1942. Pp. iv+80. (Edinburgh: Carnegie Trust for the Universities of Scotland.) [232]

Other Countries

Canada: Department of Mines and Resources, Mines and Geology Branch: Bureau of Geology and Topography: Geological Survey, Memoir 229: Noranda District, Quebec. By M. E. Wilson. (No. 2461.) Pp. vii+162 (14 plates). 50 cents. Memoir 231: Bousquet-Joannès Area, Quebec. By H. C. Gunning. (No. 2463.) Pp. v+110. 25 cents. Memoir 234: Mining Industry of Yukon, 1939 and 1940. By H. S. Bostock. (No. 2466.) Pp. iii+40. 25 cents. (Ottawa: King's Printer) [112]

Bulletin of the American Museum of Natural History. Vol. 78, Art. 8: Results of the Archbold Expeditions, No. 39: A Review of the Genus *Myotis* (Chiroptera) of Eurasia, with Special Reference to Species occurring in the East Indies. By G. H. H. Tate. Pp. 537-565. Vol. 78, Art. 9: Results of the Archbold Expeditions, No. 40: Notes on Vespertilionid Bats of the Subfamilies Miniopterinae, Murinae, Kerivoullinae, and Nyctophilinae. By G. H. H. Tate. Pp. 567-597. Vol. 79, Art. 1: Ticholeptinae, a New Subfamily of Orodonts. By C. Bertrand Schultz and Charles H. Falkenbach. Pp. 105. (New York: American Museum of Natural History.) [112]

Government of India. Report of the Bio-chemical Standardisation Laboratory, 1937-1940 (31st March). By Lt.-Col. Sir R. N. Chopra. Pp. v+92. (Delhi: Manager of Publications.) 1.10 rupees; 2s. 6d. [132]

Carnegie Institution of Washington. Publication No. 538: Embryology of the Rhesus Monkey (*Macaca mulatta*). Collected Paper from the Contributions to Embryology, published by the Carnegie Institution of Washington. Pp. iii+148+52 plates. (Washington D.C.: Carnegie Institution.) 1 dollar. [172]

Gold Coast Timbers. Compiled with the assistance of Officers of the Forestry Department, and edited by the Chief Conservator of Forests, Capt. R. C. Marshall. Pp. viii+45+iv. (Accra: Government Printer.) 1s. 6d. [202]

Land Management in the Punjab Foothills. By Dr. R. MacLagan Gorrie. Pp. v+78+xii+14 plates. (Lahore: Government Printing Office.) 1.6 rupees. [232]