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# The Public Health Journal

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## Index to Volume III.

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### List of Contributors

Adami, J. George.  
Anderson, H. B.

Babbit, Ellen.  
Bailey, Charles A.  
Blackader, A. D.  
Blanchard, A. C. D.  
Boyd, H. O.  
Bryce, P. H.  
Band, Charles P.

Caipman, Willis.  
Clark, George T.  
Clarke, J. T.  
Coit, Henry.  
Connell, W. T.  
Cornell, W. S.  
Craig, D. A.

Day, Arthur.  
Doherty, W. H.

Ewart, R. J.  
Fowler, Gilbert J.

Gardiner, J. Rawson.  
Gauvreau, J.  
Grant, Sir James.  
Greene, A. J.

Hart, Wm. M.  
Harris, David Fraser.  
H'ggins, Charles H.  
Hill, H. W.  
Hodgetts, Charles A.  
Hurlbatt, Ethel.

Jacques, H. W.  
Johannesson, Jul., Sig.  
Jones, G. Carleton.  
James, E. A.

Knight, Ray R.  
King, D. Macdougall.

Laberge, J. W.  
Laidlaw, Campbell.  
Lighthall, W. D.  
Ludlow, T. W.

Magill, William S.  
Mann, Addison.  
McArthur, F.  
McCarthy, Mrs. Macdonald.  
McCullough, John W. S.  
Meredith, Colborne P.  
Munce, T. E.  
Murray, T. Aird.

Nasmith, George G.

Nobbs, Percy E.  
Nyblett, H. G.

Oldright, William.  
Outhet, Rickson A.

Pagé, J. D.  
Porter, George D.

Race, Joseph.  
Roberts, James.  
Rutledge, R.

Seymour, Maurice M.  
Shaw, W. F.  
Shirreff, W. T.  
Shortt, Mrs. Adam.  
Shutt, Frank T.  
Smillie, Mrs. N. C.

Todd, Rachel R.  
Tustin, P. B.

Wakefield, A. W.  
Watson, Thomas.  
Wesbrook, F. F.  
Whitelaw, T. A.  
Williams, Tom A.  
Wilson, Arthur.

TORONTO,  
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## Introductory

	Page		Page
Bryce, Alexander . . . . .	605	Lee, Frederick S. . . . .	167
Connaught, H. R. H. The Duke of . . . . .	1	Munroe, James Phinney . . . . .	365
Ellis, Havelock . . . . .	671	Salleeby, C. W. . . . .	101
Freemantle, Francis . . . . .	51	Solomon, Meyer . . . . .	481
Hutchinson, Woods . . . . .	233-239	Wiley, Harvey W. . . . .	299
		Williams, Dora . . . . .	431

## Frontispiece

Adami, J. George . . . . .	365	Lister, The Late Lord . . . . .	102
Beck, The Honorable Adam, President of, and Some Delegates to C.A.P.T. Congress . . . . .	400	McCullough, John W. S. . . . .	540
Connaught, H. R. H. The Duke of . . . . .	2	Roberts, James . . . . .	163
Hill, Hibbert Winslow . . . . .	432	Wakefield, A. W., and a Labrador Residence . . . . .	234
Hodgetts, Charles A. . . . .	52	Wesbrook, F. F. . . . .	482
Jones, G. Carleton . . . . .	672	Whitelaw, T. H. . . . .	606

## Special Articles

Alcohol and Tuberculosis . . . . .	563	Milk Supply, Municipal . . . . .	260
Biological Products . . . . .	28	Milk Supplies, Municipal Control of . . . . .	621
Bloom, Six Weeks of Early Spring . . . . .	190	Nervous Disorders, Diet in . . . . .	391
Cheese Factory and Farm Well Waters . . . . .	169	Open Air School Movement, 1904-1912, The . . . . .	547
Child Welfare Exhibitions and Their Value . . . . .	371	Phthisis, Notification of . . . . .	503
Dosage on the Reaction of the Tubercle Calci- lus, The Influence of . . . . .	449	Presidential Address, 12th Annual Convention Canadian Association for the Prevention of Tuberculosis, Notes from . . . . .	331
Dust as a Factor in Disease . . . . .	316	Psychrophilic Organisms in Water . . . . .	458
Dust in the House and on the Street . . . . .	628	Public Health Act, The Ontario . . . . .	573
Food Inspection, Municipal . . . . .	500	Public Health, A Survey of . . . . .	541
Food Products by Cold, Necessity for Preser- vation of . . . . .	116	Public Health, Relationship of the Medical Practitioner to . . . . .	249
Garbage in Its Relation to Public Health, The Removal and Disposal of House . . . . .	555	Pulmonary Consumption, The Rural Health Officer's Relation to . . . . .	618
Garden Talks, Some Early . . . . .	109	Refrigerators . . . . .	456
Health Officers: The Sanitary Inspector, How to Get and Keep Competent . . . . .	281	Rehousing in Canada . . . . .	446
Immigrants, The Medical Inspection of . . . . .	433	Repetition: An Education Requirement, Per- tinent . . . . .	129
Immigrants on Shipboard, The Medical Inspec- tion of . . . . .	23	Royal Edward Institute, The . . . . .	248
Improvement of the Human Mouth, What is Being Done Outside the Dental Office for the . . . . .	235	Sanitation, A Civil Asset, Militia . . . . .	625
Infant Mortality, Educational Methods Now Employed in Great Britain for Reducing . . . . .	64	Sanitation, False Starts in, Municipal . . . . .	451
Insanitary Areas . . . . .	177	Sanitation and Hygiene in Newfoundland and Labrador . . . . .	239
Intestinal Infections, The Factors in the Spread of Acute . . . . .	182	Sanitation and Hygiene . . . . .	53
Meat Inspection, Municipal . . . . .	378	Sanitation, Military Aspects of . . . . .	11
Medical Health Officer, The . . . . .	67	Sanitation in Railroad Camps . . . . .	185
Medical Inspection, Some Recent Advances in Men's Wearing Apparatus for Saving Life in Mines, Physiological Observations on . . . . .	118	Sanitary Inspection of Villages . . . . .	197
Military Camps, Hygiene Laboratories in . . . . .	123	Scarlet Fever, Prevention of . . . . .	327
Milk Depots, The More Important Causes Un- derlying the Heavy Infantile Death Rate in Large Cities and the Benefits to be Deived from the Establishment of . . . . .	367	Scarlet Fever Epidemics and Its Difficulties, The Control of . . . . .	124
		School Buildings . . . . .	375
		Sewage Disposal by Oxidation Methods . . . . .	633
		Sewage Disposal During the Last Twenty Years, Progress in Canada in Biologi- cal Methods of . . . . .	112
		Sewage Disposal, The Chemical Principals In- volved in . . . . .	70
		Sewage, Some Physical and Economical Fac- tors in the Biological Disposal of . . . . .	312



	Page		Page
Sewage Treatment, Engineering Problems Connected With Biological. . . . .	19	Tuberculosis, What the Federal Government Might Do to Assist in the Control of. . . . .	383
Statistics of Housing and Co-Partnership Schemes, The. . . . .	453	Typhoid Fever, Memorandum Concerning Vaccination in the Prophylaxis of. . . . .	255
Theatrical Atmosphere, Some Remarks On. . . . .	455	Typhoid Fever and Measures Taken to Avoid It, Threatened Outbreak of. . . . .	630
Town Planning Schemes and Civic Authorities	126	Vaccines and the Common Cold. . . . .	175
Town Planning and Housing. . . . .	61	Ventilation in Private Dwellings, Natural. . . . .	325
Town Planning Schemes, Municipal Powers in Dealing With. . . . .	483	Vines and Hedges. . . . .	439
Town Planning from an Architect's Point of View. . . . .	387	Water Supply, The Farm. . . . .	194
Town Planning from a Sanitary Standpoint. . . . .	322	Water Supply, Methods Adopted by the City of Saskatoon for the Purification of Domestic. . . . .	494
Tuberculoze, Entretien au Peuple, La. . . . .	12	Water Supply, Temporary Auxiliary. . . . .	507
Tuberculosis, Administrative Control of. . . . .	607	Water Supply and Typhoid, The Relation of. . . . .	616
Tuberculosis, Modern Public Health Teaching and Practice in Relation to the Control of. . . . .	485	Water Ways, Hygiene of Canadian. . . . .	73
Tuberculosis and the Public. . . . .	561	Water Works System for a Small Town, An Ideal. . . . .	187
Tuberculosis and Public Health. . . . .	321	Work for Women as Sanitary Inspectors. . . . .	172
Tuberculosis, Some Social Aspects of. . . . .	307		

**Editorial**

British National Insurance Act, Two Effects of the. . . . .	76	76, 133, 199, 268, 335, 391, 463, 510, 570, 639, 714.	
Canadian Public Health Association Congress, Inauguration, 1911. . . . .	3	Lister, Joseph. . . . .	130
Canadian Public Health Association Congress, Provisional Program of the. . . . .	460	Medicine, The Broader Aspect of. . . . .	198
Demography, The Fifteenth Annual Congress on. . . . .	509	Public Health, Recommendations from the Canadian Public Health Association to the Various Authorities Controlling the Administration of. . . . .	267
Federal Bill, Our. . . . .	131	Public Health and Sanitary Engineering. . . . .	131
Great Lakes, Pollution of the. . . . .	569	Quackery. . . . .	714
Inter Alia. . . . .		Sanitarium, The Muskoka. . . . .	462
		Sanitary Science. . . . .	638

**Library and Laboratory**

<b>Current Periodical Comment and Working Notes</b>		Diseases in Prisons. . . . .	201
Air Prophylaxis. . . . .	641	Disease, Protection Against. . . . .	716
Arterio Sclerosis, A Supposed Cause of. . . . .	571	Dust by Sprinkling Oil, Fight. . . . .	340
Air, Benefit of Fresh. . . . .	271	Dental Examinations. . . . .	338
Bathing Pool, The Menace of the. . . . .	516	Elephantiasis in Fiji. . . . .	204
Boards of Health and the Fly, Our. . . . .	464	Every Child to His Garden. . . . .	338
Business, Every Man's. . . . .	202	Fly, A Plea for the House. . . . .	512
Cadet Training. . . . .	84	Foods, Hot. . . . .	202
Cancer, Theories as to. . . . .	136	Foot and Mouth Disease, Disinfection in. . . . .	573
Candy as a Food. . . . .	337	Flies, Observations on the Range of Flight of. . . . .	392
Cats and Disease. . . . .	466	Guide to Other Journals, Reference. . . . .	
Child, The Century of the. . . . .	37	141, 206, 275, 340, 401, 469, 516, 575, 643, 719	
Churches, Unhealthy. . . . .	715	Habit, The Invalid. . . . .	468
Cows and Housing. . . . .	401	Health Insurance. . . . .	642
Decay in the Prescribing Art, On. . . . .	273	Health, State Boards of. . . . .	571
Defectiveness of School Children, Exaggerating	512	Health, United States Government Department of. . . . .	139
Development of City Men, Physical. . . . .	467	Health of the People, The. . . . .	271
Diagnosis, Clinical. . . . .	79	Health, Lay Teachers of. . . . .	37
Die, The Right to. . . . .	572		
Diet and Intellect. . . . .	203		



# INDEX TO VOL. III.

	Page
Health Through Right Thinking.....	465
Health and Hygiene. . . . .	465
Health, Old Fashioned Morals and Science of. . . . .	641
Helio-therapy. . . . .	640
Health, The Telephone and. . . . .	716
Heredity and Disease. . . . .	640
Leprosy in the United States. . . . .	446
Malaria, The Poison of. . . . .	399
Matter Out of Place. . . . .	201
Medicine and the Schools, Preventive. . . . .	511
Milk as a Factor in Infantile Mortality. . . . .	270
Mind and Living Things. . . . .	135
Mind and Living Things. . . . .	135
Myth, The Ozone. . . . .	204
Odors, English Decision on. . . . .	398
Perfumes and Health. . . . .	640
Petterkofer, Max Joseph Von, Founder of Hygiene. . . . .	511
Physicians, A Rap at Old Style. . . . .	572
Preventive Diseases. . . . .	85
Public Health, Doctors of. . . . .	715
Public Health Education. . . . .	399
Public Health, The Monthly Journal of the Royal Institute of. . . . .	37
Public Health, The New. . . . .	138
Public Health Topics, Directory of Current Journalistic. . . . .	83
Rat Guard Used in the Philippine Islands. . . . .	469
Rats, A Plea for. . . . .	469
Religion and Sanitation. . . . .	340
Rest and Recreation. . . . .	573
Rhodesia, Disease Producing Parasites in. . . . .	643
Rooms at Seaside Resorts, Unventilated. . . . .	643
Sage Foundation, The Russell. . . . .	512
Sanitation in the Canal Zone. . . . .	272
Sanitation, A Triumph of. . . . .	203
Sanitation Wanted in Africa. . . . .	272
Sanitation, A Pioneer in. . . . .	295
Sanitation, Rural. . . . .	718
Sanitation, Past, Present and Future. . . . .	400
Sanitation Where Sewers Have Not Been Installed, Home. . . . .	86
Sex Hygiene in Schools, Danger of. . . . .	515
Schoolroom Ventilation. . . . .	464
Science, A Triumph of. . . . .	338
Sewers, The Ventilation of. . . . .	642
Sick, How to Keep. . . . .	718
Smallpox and Compulsory Vaccination. . . . .	202
Stockholders Can Do, What. . . . .	398
Specialism in General, and Genito-Urinary Surgery in Particular. . . . .	573
Springs, Polluted. . . . .	137
Surgery, The Aesthetic Side of. . . . .	140
Tonsil Surgery, An Opinion On. . . . .	397
Tuberculosis, Relation of Mouth to. . . . .	337
Typhoid Fever, Prevention of. . . . .	717
Tarring Roads. . . . .	400
Ventilation, Limitation of. . . . .	84
Ventilation, School. . . . .	85-204
Ventilation of Sleeping Cars. . . . .	396
Windows, Open the. . . . .	203

<b>Reviews and Acknowledgements</b>	
	Page
Acuity, Refraction and. . . . .	32
Air Analysis, Methods of. . . . .	481
Automobile Road Guide of Canada, Official. . . . .	581
Automobiles, Andil's Answers on. . . . .	721
Babies, How to Save the. . . . .	346
Baby, The Healthy. . . . .	577
Bacteria as Friends and Foes of the Dairy Farmer. . . . .	471
Being, The Mastery of. . . . .	722
Blair's Pocket Therapeutics. . . . .	207
Blood of the Fathers, The. . . . .	645
Blues, The. . . . .	520
Boy Life, Problems of. . . . .	470
Cancer, The Local Incidence of. . . . .	580
Cave, Mound and Lake Dwellers. . . . .	208
Cesare Lombroso. . . . .	32
Child in the City, The. . . . .	580
Child Nurture. . . . .	145
Cunics, International. . . . .	252, 520, 648
Conduct, Psychology of. . . . .	722
Confidences. . . . .	32
Dental Disease in Its Relation to General Medicine. . . . .	280
Diet, Modern Theories of. . . . .	646
Dictionary, A Pocket Medical. . . . .	32
Dining and Its Amenities. . . . .	146
Diseases of Children, Modern Diagnosis and Treatment of. . . . .	343
Doings of the Brambles and Other Stories, The. . . . .	343
Drainage of Towns, The Main. . . . .	519
Drainage Work and Sanitary Fittings. . . . .	81
Dust, The Kingdom of. . . . .	281
Education, New Demands in. . . . .	473
Encyclopædia, The Foods Inspector's. . . . .	722
Education, The Old and the New. . . . .	721
Eugenics, Practical. . . . .	579
Exercise and Health. . . . .	646
Farming, Productive. . . . .	276
Faith and Fear, The Physiology of. . . . .	721
Fevers, A Manual of. . . . .	144
Flies, House. . . . .	648
Food Poisoning, Bacterial. . . . .	518
Foods, Pure. . . . .	145
Foods and Their Composition. . . . .	722
Gardens and Their Meaning. . . . .	474
Genes. . . . .	277
Girls and Education. . . . .	209
Gonococcal Infections. . . . .	647
Goodkin, Dr., Eminent English Specialist. . . . .	474
Guide to Prevention of Disease and the Preservation of Health. . . . .	472
Gulick Hygiene Series. . . . .	209
Hashesh, An Essay on. . . . .	819
Hazel's Annual for 1912. . . . .	210
Health in Home and Town. . . . .	649
Health and Disease in Relation to Marriage and the Married State. . . . .	405
Health and the Medical Inspection of School Children. . . . .	218
Health Readings. . . . .	283



	Page		Page
Health Index of Children, The.....	344	The New.....	649
Health, Essentials of.....	345	Post-Mortems and Morbid Anatomy.....	723
Health to Date.....	211	Psychology, An Introduction to.....	722
Health and Empire.....	79	Psychotherapy.....	455
Health, Home Book of.....	210	Psychotherapy.....	455
Heating, Central Station.....	144	Public Health, Chemistry and Bacteriology...	404
Heaton's Annual for 1912.....	81	Public Health Law, Manual of.....	406
Herself.....	32	Publications Received for Later Attention...	146, 213, 283, 346, 408, 474, 520, 581, 649, 723.
Histology, Aids to.....	579	Puerperal Fever and Allied Infectious Dis-	eases, Statistics of..... 578
Home Hand Book, The.....	342	Rural Schools, Improvement of.....	407
Hygiene, A Manual of Practical.....	32	Sanitary Tactics, The Principles of.....	143
Hygiene for Teachers, Text Book of.....	472	School, The.....	471
Hygiene, The Science of.....	404	Science and Literature, Cambridge Manuals of	472
Hygiene, Principles of.....	723	Sewage Disposal.....	406
Hygiene, Ship's.....	346	Sewage Sludge.....	404
Hygiene, Rural.....	82	Sewage Purification, Modern Methods of.....	212
Immunity.....	403	Sex Control, The Key to.....	276
Induced Cell Reproduction and Cancer, Fur-	ther Researches Into..... 473	Sex Hygiene for the Male.....	344
Injured, Immediate Care of the.....	344	Sexual Problems of To-day.....	342
Insect Stories.....	580	Skin and Hair, The Care of.....	406
Internal Diseases, Prophylaxis and Treatment	of the..... 277	Sleep and Digestion.....	473
Laboratory Diagnosis for the General Practi-	tioner, Essays on..... 32	Smallpox and Its Diffusion.....	647
Laws and Regulations in Various States, Di-	gest of the..... 202	Smoke.....	404
Leprosy, Studies Upon.....	212	Social Problems: Their Treatment, Past,	Present and Future..... 405
Life, The Origin of.....	279	Sociology Applied to Practical Politics.....	32
Life, The Mechanism of.....	80	St. John's Ambulance Companies, Manual for	280
Making Good on Private Duty.....	648	Surgery and Its Making, Modern.....	142
Meat Hygiene.....	278	Syphilis with Salvarsan, Treatment of.....	32
Medical Annual, The.....	344	Taylor Pocket Case Record, The.....	213
Medical Education and Infant Feeding.....	81	Teacher's Tenure, Necessary Basis of the...	646
Medical Symposium Series, Interstate.....	143	Teeth to the Twelfth Year, Baby's.....	578
Medicine, Progressive.....	474	Therapeutics, Suggestive.....	80
Medicine, The Scientific Features of Modern.	283	Therapeutics, Light.....	408
Microbes and Toxins.....	648	Therapy, Natural.....	211
Microbiology.....	520	Time and the Second Generation.....	519
Military Law Examiner, The.....	280	Training Manual, British Red Cross Society..	144
Military Sanitation for Regimental Officers,	Hand-Book on..... 519	Truths.....	32
Milk and The Public Health.....	345	Tuberculin Treatment, Sahl's.....	407
Modesty, False.....	403	Tuberculosis, Heredity and Environment....	406
Montessorie Method, The.....	471	Typhoid Fever.....	210
National Insurance Act, Everybody's Guide to	the..... 278	Water Supplies, Small.....	579
National Insurance Act, The Alphabet of the.	403	Walker's Medical Loose-Leaf Pocket Book...	213
Nerves, The Conquest of.....	82	Wash-House, The.....	144
Nerves and the Nervous.....	82	Water Analysis, A Simple Method of.....	578
Nostrums and Quackery.....	32	Waterworks, Home.....	211
Notices Alphabetical, Advance.....	604	Wellcome Photographic Exposure Record and	Diary..... 578
Nursing, Modern Methods of.....	472	Wellcome Tropical Research Laboratories and	Supplemental to the Same, Fourth Re-
Nursing, Home Nurses' Handbook of.....	403	port of the..... 342	408
Pellagra.....	580	Whence and Whither.....	647
Physiology, Elementary.....	345	Wives, Words to.....	407
Physiology in Surgical and General Practice,	The New..... 649	Woman, The Sexual Life of.....	278

**Open Mail**

Air and How to Use It, Fresh.....	520	British West Indies, A Letter from the.....	214
Books, Some Useful.....	39	Butter, Dangers Through Impure.....	87



	Page		Page
Conditions of Railway Depots and Hotel Surroundings, Insanitary. . . . .	521	Myths, Ozone. . . . .	285
Congratulations from Michigan. . . . .	285	Public Health and the Liquor Traffic. . . . .	650
Consumption, An Opinion on. . . . .	348	Public Health Journal, An Opinion Concerning the. . . . .	409
Duty, Heroes of. . . . .	286	Another Opinion. . . . .	409
Health Administration, Cheap. . . . .	522	Regina, The Accepted Invitation of. . . . .	582
Health Conservation, The Forward Movement in Michigan for. . . . .	347	Sanitation, Rural. . . . .	475
Hygiene, Health and Habits. . . . .	475	Sewage Disposal, Discussion on Engineering Problems Involved in Biological Methods of. . . . .	147
Insurance Act, Doctors and the British National. . . . .	87	Sewage Disposal for Hospital Buildings. . . . .	348
Medical Inspection of Schools, A Section of. . . . .	39	Soil, Civic and Health Conservation. . . . .	650
Medical Officers on Board Ship, Remuneration of. . . . .	151	Vivisection, Report of the Royal Commission on. . . . .	284

### Meetings and Reports

#### Domestic

Agriculture in Ontario Schools. . . . .	219	Health Board, A By-Law Respecting Hygiene in Barber Shops and Hair-dressing Parlors, Halifax City. . . . .	89
Alberta Health Act and Its Relation to Medical Inspection. . . . .	153	Health By-Laws, Halifax Amendments to City Health, The New Laboratories at the Toronto Department of. . . . .	290
Biological Board of Canada, An Act to Create a. . . . .	287	Health Districts in Saskatchewan, Regulations Regarding. . . . .	291
British Columbia, University of. . . . .	222	Health Districts, Ontario. . . . .	349
Canadian National Housing Association. . . . .	410	Health Exhibit, A Travelling. . . . .	350
Canadian Public Health Association, Second Annual Congress of The. . . . .	583	Health Laws of Quebec Locally Ignored. . . . .	155
Charities and Corrections, Canadian Conference of. . . . .	651	Health of Toronto, The. . . . .	585
Chicago Drainage Canal, Protest Against Increasing Flow of. . . . .	220	Health Report, Vancouver. . . . .	217
Conservation, Canadian Commission of. . . . .	88	Health, Quebec Board of. . . . .	725
Conservation Reports, Commission of. . . . .	89	Hospital Association, Canadian. . . . .	291
Consumption, Dr. J. A. Amyot's Hint to Avoid Diseases in December, 1910-1911, in Ontario, Communicable. . . . .	155	Insect Pest and Plant Disease Act, 1911, Amendments to the Nova Scotia Injurious Inspection and Sale of Food By-Law Amendment, Halifax. . . . .	222
District Inspectors for the Province of Quebec, Selection of Ten. . . . .	288	Lachapelle, The Report of Dr. Severin. . . . .	156
Educational Association, Ontario. . . . .	290	Medical Association, Canadian. . . . .	526
Education, Fifth Annual Report of the Alberta Department of. . . . .	217	Medical Association, Ontario. . . . .	350
Farms, Demonstration. . . . .	287	Medical Association, Thunder Bay. . . . .	355
Fifteenth International Congress of Hygiene and Demography to the Canadian Public Health Association, The Secretary General of the. . . . .	287	Medical Corps, Canadian Army. . . . .	349
First Annual Convention of The Canadian Public Health Association, held in McGill University, Montreal, December 13th, 14th and 15th, 1911, Proceedings at the General Sessions and Sections of the. . . . .	40	Medical Council, Dominion. . . . .	651
Fish and Game Report, Ontario. . . . .	288	Motherhood Association, Canadian. . . . .	411
Fruit Growers' Conference, Dominion. . . . .	218	Municipalities, Convention of the Union of Canadian. . . . .	527
Grant, A Story of Sir James. . . . .	40	Notes, Domestic. . . . .	414, 476, 527, 586, 652, 727
Health Act, The Alberta Public. . . . .	411	Notices, Alphabetical, Advance. . . . .	40, 88, 159, 223, 414, 476, 357, 528, 586, 655, 729
Health Act, Possible Changes in the Ontario. . . . .	40	Ontario Act, The Amended. . . . .	218
Health Board Ordinance, Halifax City. . . . .	156	Open Air School, Toronto's First. . . . .	350
Health Board Reorganization, Montreal. . . . .	40	Ordinance No. 26, of the City of Halifax, Amendment of. . . . .	288
		Ottawa Sand Filtration Plant. . . . .	154
		Programme of The Canadian Public Health Association Congress, Provisional. . . . .	523
		Quarantine Regulations Regarding Hair, Cana-	



	Page	Page
dian. . . . .	154	Town Planning Conference. . . . . 358
Quebec, and the Act Concerning Juvenile Delinquents. . . . .	40	Tuberculosis, Seventh International Congress on. . . . . 223, 258
Quebec Quarantine Station, Report of. . . . .	410	
Registrar-General, Report of the Ontario. . . . .	726	Waterways Commission of the United States and Canada, Joint. . . . . 729
Roads Association, Ontario Good. . . . .	156	Water Works Association, American. . . . . 415
Royal Edward Institute. . . . .	652	
Rutherford's Report, Veterinary Director General. . . . .	92	<b>United States</b>
School Report, New Brunswick. . . . .	290	Accidents, Chicago School for Study of Prevention of. . . . . 732
Toronto's Medical Health Officer, Report of. . . . .	410	Barton, Clara. . . . . 295
Tuberculosis, Canadian Association for the Prevention of. . . . . 350		Budget Exhibit, The New York. . . . . 48
Tuberculosis, and Ontario Hospitals. . . . .	292	Charities and Corrections, Conference of the Illinois Association of. . . . . 658
Tuberculosis, The Suppression of. . . . .	156	Charities and Corrections, Ninth Massachusetts State Conference of. . . . . 658
Twelfth Annual Meeting of The Canadian Association for the Prevention of Tuberculosis. . . . .	217	Child Welfare Exhibit, Third. . . . . 48
Tuberculosis in Quebec, Report of the Royal Commission on. . . . .	90	Conservation, Fourth National Congress on. . . . . 657
Water Power Resources, Conservation Report on Canada's. . . . .	91	Condition of the Poor, New York Association for Improving. . . . . 657
Women, 1912 Convention, National Council of Women's Institutes of Ontario, The. . . . .	724	Criticism of the Last Flexnor Report, A. . . . . 595
		Cure Frauds, United States Churches to Denounce. . . . . 594
		Dental Research, Harriet N. Lowell Society for. . . . . 95
<b>International</b>		Education Association, Declaration of the United States National. . . . . 94
Accidents, International Congress on Industrial. . . . .	529	Education and Sex Hygiene, Chicago Board of. . . . . 164
Charities, American Conference of. . . . .	415	Fly Ordinance, Indiana Model. . . . . 417
Chemists in International Convention. . . . .	591	Girls, The Camp Fire. . . . . 227
Eugenics Congress, First International. . . . .	477	Health Authorities with the Public Health and Marine Hospital Service, Washington, June 1st, 1912, Tenth Conference of State and Territorial. . . . . 418
Fish and Game Protective Association. . . . .	293	Health Cards in Washington. . . . . 225
Great Lakes International Pure Water Association and the National Association for the Prevention of Pollution of Rivers and Harbors, Congress of the. . . . .	655	Health, Report of South Dakota State Board of. . . . . 733
Health Association, American Public, 47, 159, 590		Health Inspectors of San Francisco. . . . . 294
Heredity at American Life Insurance Convention, Consideration of Laws of. . . . .	160	Health Laws, Amending New York Public. . . . . 226
Hygiene Association, American School. . . . .	223	Health, Massachusetts State Board of. . . . . 162
Hygiene, International Office of Public. . . . .	160	Horse Meat Cases, The New Jersey. . . . . 227
Hygiene and Demography, Fifteenth Congress of. . . . .	588	Health, New York State Board of. . . . . 162
Insurance Convention, American Life. . . . .	593	Health Officers' Association, Michigan. . . . . 293
"Municipal Diseases" at the American Climatological Association Meeting, Discussion on. . . . .	160	Health and Sanitary Exposition, St. Louis. . . . . 48
Notes, International . . . . . 416, 530, 693, 656, 730		Health Officers, Georgia Association of. . . . . 295
Advance Notices, Alphabetical . . . . . 47, 93, 161, 224, 293, 360, 478, 516, 530, 581, 656, 730		Health, South Dakota and Public. . . . . 162
Orthopedic Association and the American Pediatric Society, The American. . . . .	93	Health and Sex Hygiene, Ohio State Board of. . . . . 95
Surgeons of North American Clerical Congress of. . . . .	729	Health at the Trans-Mississippi Congress, Public. . . . . 96
		Health Report, Kansas Board of. . . . . 731
		Health, Pennsylvania Department of Public. . . . . 226
		Health Talks, City. . . . . 362
		Health, Report of Virginia State Board of. . . . . 732
		Health, Wisconsin Women and Public. . . . . 163
		Hygiene, Connecticut Society for Mental. . . . . 95
		Hygiene and Public Baths, American Association for. . . . . 530
		Indiana in Line. . . . . 294
		Infantile Paralysis in Massachusetts. . . . . 658



	Page		Page
Inspection Law, Colorado School.....	362	Health, British Society of Medical Officers of	98
Inspection League, New York Grocery.....	95	Health, Congress of the Royal Institute of Public.....	535
Inspectors to Wear Uniform.....	361	Health of Dublin, Public.....	665
Medical Association, American.....	532	Health in Johannesburg, Public.....	599
Medical Education in Europe, Carnegie Foun- dation Report on.....	419	Health of Peru, The Public.....	298
Medicine, American Academy of.....	294	Health in Queensland, Public.....	536
Military Surgeons of the United States, Asso- ciation of.....	94	Health Report, Calcutta.....	100
Notes, United States... 425, 478, 533, 597, 659, 734		Health and Sanitation in Ashanti.....	600
Notices, Alphabetical, Advance..... 48, 94, 164, 228, 295, 367, 426, 479, 534, 508, 662, 735		Hygiene Work in Glasgow, School.....	230
Pellagra, A Kentucky Report on.....	225	Infantile Mortality and Promotion of Welfare of Children under Age, British National Association for the Prevention of.....	428
Pellagra and the United States.....	94	Infantile Paralysis in England.....	164
President of the American Medical Association and Patent Medicines, The.....	417	Insanitary House, An English Medical Officer on the Definition of an.....	599
Press as Health Medium, The.....	361	Inspection in Japan, School.....	165
Prophylaxis, A Private Practitioner in the Field of.....	293	Inspection at Nicolaieff, Ship.....	99
Pure Food Laws, Violators of.....	361	Insurance Act, The British.....	665
Racial Comparisons, Boston.....	595	Insurance Act, Final Terms Offered to the Medical Profession under the British....	666
Sanitary Association, New Jersey.....	96	of . . . fl fl , vxbgkq bgk bgkq gkqj gkqj k	
Sanitary Conference, Minnesota State.....	48	Isolation Hospitals, The Cost of Construction of.....	662
Sanitary Lesson of the United States to Guay- aquil, The.....	163	Insurance Act, The British Medical Associa- tion and the National.....	229
Sex Hygiene, American Federation of.....	731	Kala-Azar and Its Parasite.....	165
Smallpox and False Hair.....	361	Medical Congress, The South African.....	429
Smallpox in Michigan.....	225	Medicine in Australia, Tropical.....	367
Sterilization of Criminals, New York State and the.....	295	Mother and the State, The.....	364
Summer Resorts, Michigan to Inspect.....	294	Mortality Amongst Rand Miners.....	296
Theatre Ushers, Chicago Certificate for.....	95	Public Health and Marine Hospital Service, Washington, June 1st, 1912, Tenth Con- ference of State and Territorial Health Authorities with the.....	418
Tubercular Tests in Factories.....	362	Notes of Empire and World Abroad.....	
Tuberculosis Raises Insurance Rates.....	362	..... 430, 479, 538, 602, 669, 735	
Veneral Prophylactic Package, A U. S.....	97	Notices, Alphabetical, Advance..... 50, 97, 166, 232, 298, 364, 430, 480, 538, 604, 670, 736	
<hr/>			
<b>The Empire and the World Abroad</b>			
Agenda Club, The.....	427	Radium Standard, The.....	367
Barr before the British Medical Association, Sir James.....	479	Royal Sanitary Institute, South African Branch of the.....	50
Bread Served in Paper, Rome.....	364	Royal Sanitary Institute Congress.....	535
Cancer Investigations.....	230	Sanitary Administration, Indian.....	668
Cancer, Dr. Gaston Oden's Report on.....	600	Sanitation Bureau in Venezuela.....	165
Cinematograph in British Health Lecture....	367	Sanitation, Indian.....	602
"Dog-Mouth," Paris.....	50	"Sewer" and "Drain" Defined.....	296
Eugenics in an English School.....	735	Tuberculosis in European Armies.....	429
		Tuberculosis, Harveian Oratorion on.....	97
		Tuberculosis Treatment, Report of British Commission on.....	427



Many of the general public labor under the delusion that to avoid epidemics and to bring health into their daily life they must be equipped with deep scientific knowledge. This is a totally erroneous idea; profound knowledge and tedious research on the part of the scientist are required to arrive at logical and exact results in the field of hygiene but these results and their application to our daily life are perfectly simple and straightforward.

—Field Marshall, His Royal Highness, The Governor-General of Canada.





Patron  
Canadian Public Health Association



# The Public Health Journal

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Editorial

## INAUGURATION 1911, CANADIAN PUBLIC HEALTH ASSOCIATION CONGRESS

Following its organization, in Ottawa in the autumn of 1910 and a membership accretion flattering in its standard to object and policy and creditable primarily in its gratifying first extent to the altruistic spirit of the medical profession of Canada, the official inauguration of the Canadian Public Health Association's event-

ful 1911 Congress took place on the evening of the thirteenth of December in Montreal under the direction and most auspicious patronage of Field Marshall, His Royal Highness, The Governor General.

A reception and supper concluded the proceedings, admittedly momentous in the history of Canada.

### PRESIDENT STARKEY'S INTRODUCTORY REMARKS

To the brilliant assemblage—filling Royal Victoria Hall and including members, of the Royal family and staff, of federal, provincial and municipal governments, delegates from co-operating international and foreign organizations, representative, civil and military officials, professional and business men — the presidential introductory address pointed out the Association aims, declared the corner stone of the Association to be the Patron and, the president in position to announce the Governor-General's intention not only to be patron in the usual sense, but to take an active part in Association affairs. The presidential address also expressed the thanks of

the Association to Lord Strathcona, Vice-Patron, for most valuable advice in organization as well as for his highly appreciative, unsolicited contribution of twenty-five hundred dollars to Association funds.

May it please Your Royal Highnesses, Ladies and Gentlemen, addressed the President:

Your Royal Highnesses, I have the greatest pleasure in welcoming you here this evening, in the name of the Canadian Public Health Association, and in saying that we appreciate very highly the fact that Your Royal Highnesses and Princess Patricia have found time amongst your numerous engagements, to be present at this



ceremony. This convention here to-night is of singular moment to the members of the Canadian Public Health Association, because it marks the first public congress subsequent to organization, and the establishment of this institution — an event in the history of any society or association which is always fraught with great difficulties.

It is the setting up of the structure.

As an Association, I think our foundations are sound, and it remains for us, the members of the Association, to see to it that the superstructure is a worthy one. The foundations, as I have termed them, are remarkable, as you may note on looking at the first three pages of our Congress Programme. The corner stone is our Patron, His Royal Highness, the Governor-General; and I wish to say how deeply sensible we are of the great honor which has been conferred upon us, and to convey some measure of the enthusiasm with which the news of Your Royal Highness's approval and support was received by the members of this Association.

And, Ladies and Gentlemen, I am permitted to inform you that His Royal Highness will not only be our Patron in the usual sense, but intends to take a very active interest in sanitation, and particularly in the affairs of our Association.

To our Vice-Patrons we owe a debt of gratitude.

To Lord Strathcona, who has done so much—I may tell you that during last summer His Lordship interested himself very greatly on our behalf, in the formation of our Association, and it was largely owing to his advice that we have such a list of eminent personages as active supporters of our institution. Unfortunately distance renders it impossible for him to be with us this evening; but he is with us in spirit, for I have here a long letter from him in which he greatly regrets his inability to be present, earnestly wishing us every manner of success. At the end of the letter is a postscript—such a modest one, and so eminently characteristic of Lord Strathcona—mentioning an enclosure for the Association in the shape of his order for twenty-five hundred dollars on the Bank of Montreal. This handsome donation was entirely unsolicited, and is another very strong proof of the deep interest Lord Strathcona takes in

our welfare. As he told me, he wanted us to have a good start in life.

We now come to our second Vice-Patron—the Hon. Mr. Borden, Premier of Canada. In him we have another strong supporter of our Association, and what it stands for. We cannot be too grateful to him for what he has already done, and as he is with us to-night, and we are to hear from him, you will therefore gather what his ideas are on the subject of sanitation in general, and I am sure you will find he expects great things from us in the way of work.

Next, I want you to appreciate our list of Honorary Vice-Presidents — We have the support and approval of many cabinet ministers, of the Premier of every Province in Canada, and the Commission on Conservation, which has accomplished a good work during its short existence. And lastly we come to the officers, publishing committee and executive council. It is due to the energies of these gentlemen that the Association first took shape.

It had been felt for several years that we ought to have a Canadian Association, but the great difficulty was to get the sanitarians together. However, this was finally accomplished, and now you witness the growth so far.

Our primary aim and object is the diffusion of sanitary knowledge. To this end we must induce the public to take part in our work. We feel that by confining the Association to active professional members, we should never make headway, and that the support of the associated public is an absolute essential to success. Our aim is not only the discussion of sanitary problems and interchange of ideas amongst professional men but, to so contrive it that the general public may reap all the benefit of this knowledge—which they can do to the fullest extent by becoming members of our Association.

I now wish to refer to one more debt of gratitude — also a big one — the debt we owe to the Principal and Governors of McGill for their extreme kindness in placing part of the McGill buildings at our disposal for the purpose of this Congress. No finer place could be found in the whole of Canada, and we are particularly fortunate in being so kindly received. The authorities of McGill have ever been noted for their generosity towards any associa-



tion, and for their willingness at all times to lend a helping hand to any institution of an educational nature.

I am sure the memory of this night will

long remain in the minds of the members of the Canadian Public Health Association whose good fortune it is to be present here this evening.

## THE GOVERNOR GENERAL'S ADDRESS

His Royal Highness, responding, said: Dr. Starkey, Ladies and Gentlemen,—I desire, first of all, to express my deep satisfaction at being present at this great meeting, which has been called together to inaugurate the 1911 Congress of the Canadian Public Health Association. Of the many subjects which are awaiting solution in Canada, none is so important, to my mind, as that of the health of its inhabitants, both adult and infant; it is a subject which affects every one of us individually, and we owe it to ourselves and to the rising generation to see that conditions are improved so far as lies within our power. Public health is a question which rises above all politics, and it is the duty of the whole nation to join in promoting the objects of the Association which is now gathered here.

The urgent necessity for improvement in the existing conditions is forced on our attention by the reports of epidemics of typhoid, diphtheria and smallpox figuring all too frequently in the press, and by a study of the statistics of infant mortality in your great cities.

The aims and objects of the Association, as outlined by the President, are most commendable, and the idea of extending the membership, so as to include all kinds of workers in the domain of sanitation, is a wise one; because so many of the general public, outside those professional men actually engaged in sanitary work, are becoming extremely interested, and would gladly welcome any means whereby they could learn to act on the right lines. Such information can only be obtained from experts, and it is at a Congress such as this that opportunities are given for imparting and receiving instruction. Here the public and the experts are brought face to face, and the public can avail themselves freely of the mine of information which is thus put at their disposal.

Many of the general public labor under the delusion that to avoid epidemics and to bring health into their daily life they

must be equipped with deep scientific knowledge. This is a totally erroneous idea: profound knowledge and tedious research on the part of the scientist are required to arrive at logical and exact results in the field of hygiene, but these results and their application to our daily life are perfectly simple and straightforward. And before going further I wish to pay a hearty tribute to professional men for their willingness at all times to give the public the benefit of their valuable experience.

As an educational movement this Association is of paramount importance, for what education or knowledge is so important as that of learning how to obtain health by avoiding and preventing disease, and so securing a sound body in which to cultivate a sound mind; thus providing the combination of healthy body and mind, the importance of which has been handed down to us by the ancients.

The healthy upbringing of children, therefore, in their homes and schools, is a point of the most vital interest to everyone, no matter what his station in life may be.

The question of the education of children in hygiene matters has been undertaken more or less in most countries, but a great deal still remains to be done in that direction. Attention must be given to this, not so much as a class task, but as a part of the routine of daily life. And having secured in this Association a means of teaching we have to consider how best to apply this means in order to get out of it the best value.

Everything seems to point to the education of the coming generation as the best field for our energy. While the young are being instructed those of their parents who are desirous of learning will be able to do so, and we shall not waste our time by beating against that wall of obstinacy and apathy which in grown people so often takes expression in the formula "let things alone, what was good enough for our fathers is good enough for us."



What was good enough for the last generation is not good enough for the present. On the land where Ottawa now stands Indians were scalping one another a hundred years ago: and who would be so rash as to pretend that sanitary conditions have not changed since then? In those days pure water and air were universal in Canada; the growth of the great cities and settlements has altered this state of things, an agglomeration of people being inevitably accompanied by the seeds of disease.

While on the subject of crowded settlements I wish to say how glad I am to hear of the Garden City movement having been started in Montreal, and I trust that it may meet with the success it so richly deserves.

To provide decent homes for people outside the congested districts is a sure step in the direction of the improvement in public health, and I have no hesitation in recommending the Garden City movement most strongly to your favorable consideration and support. It will go far towards minimizing the difficulties on the score of health, which are met with in places where the population is increasing at a rate out of all proportion to the accommodation provided for it.

But science has learnt how to overcome these difficulties and in this connection I should like to quote you an instance drawn from the city of Agra in India. This city takes its water from the Jumna, a great river fouled for miles and for centuries by native towns and settlements. The garrison of Agra, formerly looked upon, I know only too well, as a most unhealthy station, has, by the progress of science, become perfectly healthy, and in three years only one case of typhoid fever has been traced to water: the filtration of the river water having been carried out so carefully that it is bacteriologically pure, and it is now no longer necessary to resort to boiling.

Speaking of sanitation in connection with children, the thought naturally arises: of all the movements which have been started in nearly all countries to reduce the terrible infantile mortality, which is so prevalent everywhere, any action tending to lessen this drain on nations will most assuredly receive the cordial support of all—and it is gratifying to note

that this topic, as well as those relating to the hygienic well-being of children, is going to receive good attention at this Congress. These subjects are to be fully dealt with by ladies and gentlemen who have devoted themselves to their solution; full discussion, therefore, is to be expected, and it is to be hoped much good of a practical nature will be the outcome. One thing is certain, the public, by means of the press and otherwise, will watch keenly the work at this Congress, and it is pleasing to note, as a matter of good augury, that the number of delegates representing other societies and associations actively engaged in movements for the hygienic upbringing of children, is a very large and representative one.

Again, it is a matter for congratulation that many other very important questions relating to the welfare of the people are to be handled at this Convention—sewage disposal, drinking water supplies, housing of the working classes, etc.—all extremely urgent and affecting the welfare of large masses of the population of Canada. The first two have become so urgent that action of some kind is contemplated by both Federal and Provincial Governments, judging by questions brought up in their legislatures; and doubtless anything tending to the solution of these problems that may be brought out at the meetings of the Canadian Public Health Association will be available for the benefit of legislators.

We must make it an object to impress on the public the necessity of obtaining health by the prevention of disease, not by its cure. Under the heading of preventive medicine come vaccination and other forms of inoculation. I know that vaccination has many antagonists, and I have no wish to enter into any argument on the subject. I will confine myself to a simple statement of the fact that in the cemetery at Gloucester, in England, lie the bodies of 276 unvaccinated children, who died during the smallpox epidemic of 16 years ago. Only one vaccinated child lost its life in the same epidemic.

It is to be fervently hoped that the people will avail themselves of any knowledge of sanitation from any source whatever, and more particularly from such a Congress as this, where we have all the Canadian experts gathered together—surely it is to them that we must look for ad-



vice and guidance in such matters. It is only when the people have thoroughly grasped the full meaning of any movement that legislative bodies can begin their work: legislation, without the intelligent support of the public, is useless, and it would be wise for all of us to appreciate the fact that legislation in respect to sanitation is honestly intended for the benefit of all of us, both individually and collectively, and that we ought to look upon legislation in connection with sanitation as a thing, not designed to make life irksome, but to protect us against diseases, and such being the case we ought to give our full support, in every way, to the authorities administering the laws.

Here, as in most countries, there are laws designed to protect the workers in

dangerous trades, but the vast majority of the public are left to look after their own health: it rests with them to protect themselves against the ravages of disease.

I have therefore great pleasure in fulfilling the mission with which I am charged this evening, that of inaugurating the Canadian Public Health Association and declaring the 1911 Congress open. And in conclusion I wish you most successful results from the work you have undertaken, and I trust that you will be able to provide the necessary impetus to the movement, designed to bring about a permanent amelioration regarding the condition of the public health in this great Dominion.

## PREMIER BORDEN'S ANNOUNCEMENT

Following His Royal Highness, the Hon. R. L. Borden, Prime Minister of Canada and Vice-Patron of the Association, declared himself strongly in sympathy with its work.

I do not think that in the past the matter of public health, said Mr. Borden, has received all the consideration it should, and I trust in the future the Hon. Mr. Burrell will be able to give to it a more direct attention than it has yet received.

He pointed out the great loss every year through preventable disease and discomfort; from the standpoint of national efficiency he considered that this was a subject which should be dealt with in an effective way.

Speaking then for those responsible for the administration of affairs in Canada—I say that we propose, Mr. Borden announced, to give this matter our most earnest consideration so far as it lies within the purview of the Dominion Government. Many of these problems should have been more effectively grappled with in the past. When you think of the wonderful supplies of pure water this country is blessed with, and then consider that it is allowed to be polluted before it is used by the people, don't you think it is time for both provincial and federal governments to work together to end such conditions with the least possible delay?

## FORECAST BY THE HON. MARTIN BURRELL

The Hon. Martin Burrell, Federal Minister of Agriculture, then being called upon, expressed his pleasure at the establishment of the Canadian Public Health Association as calculated to bring about co-operation between laymen and physicians in working for better social conditions. He especially dwelt upon the value of fresh air, remarking that if it could be got into art and literature, and even into pursuits, the effect would be beneficent.

He declared that it was a real shame that in so vast a country as Canada there could be such problems as overcrowding and

slums. In this connection the Hon. Mr. Burrell pointed out that few people considered that while they exulted in the great tide of immigration coming to Canada, only a comparatively small portion, and that the most vigorous, had gone to the great open spaces of the West, while the portion hardest to assimilate, and with the least regard for the laws of health, had drifted to swell the tide of city life, and helped to swell the congested and slum areas of such cities as Montreal, Toronto and Winnipeg.

Health is a very vital matter to our peo-



ple, said the Hon. Mr. Burrell, far more important than many things we make a fuss about. And, speaking quite unofficially, he would say he believed the time had come when, even if it did not demand a portfolio, it should at least have a full fledged department in the Federal Government. Of course, in this, he said, I am not speaking ex cathedra, and I shall probably be called down for it, but that is my

conviction.

And, concluded Mr. Burrell, just as soon as sufficient common sense administrative methods can be arranged, which will cut out the overlapping between municipal, provincial and federal authorities in health matters, you may look for a closer and more cordial co-operation between the various governing bodies, and that time, I am confident, is coming soon.

## SIR LOMER GOUIN ON BEHALF OF QUEBEC

Sir Lomer Gouin, Premier of Quebec, was greeted with applause when he addressed Their Royal Highnesses in French. He extended to the Royal visitors a warm welcome to the province, and also thanked them for their interest in the work of the Association, which he considered would be able to do a splendid work for Quebec, as well as Canada as a whole. The work undertaken by the Association was already recognized by the Provincial Government, which had established a department of hygiene and also a school of hygiene, which was the admiration of the other provinces.

The provincial government, continued Sir Lomer, was anxious to do all possible to aid the work of the Association. It had already prepared plans for the division of the province into ten districts, which were to be under the supervision of as many expert hygienists. These were to be chosen by competitive examination from the great

English and French universities, and their work, he felt sure, would prove of great benefit to the province.

Sir Lomer referred to the work of the Royal Commission on Tuberculosis, and expressed the hope that when their report was concluded he would be able to announce the establishment of a hospital for the treatment of the disease, possibly several.

The Premier also alluded in laudatory terms to the work of those arranging, with the co-operation of the Canadian Public Health Association, the Child Welfare Exhibition for Montreal, and concluded by declaring that in the future, as in the past, his government would be happy to do all it could on the advice of its own experts and the Association now inaugurated for the advancement of hygienic knowledge and practice.

## CIVIC GREETINGS FROM THE HON. DR. GUERIN, MAYOR OF MONTREAL

For the city of Montreal, and as an active member of the Canadian Public Health Association, Mayor, the Hon. Dr. Guerin extended civic greetings to His Royal Highness the Governor-General, Her Royal Highness the Duchess of Connaught, Her Royal Highness Princess Patricia, and

the notable assemblage present to do honor to this memorable inaugural convention. Mayor Guerin believed the time and opportunity present in Canada and the field illimitable for the magnificent educational work so efficiently undertaken by this scientific organization.

## THE VOTE OF THANKS—DR. MONTIZAMBERT

Director General of Public Health, Dr. Montizambert, finally, in moving the inaugurated convention's vote of thanks to Field Marshall, His Royal Highness the Governor-General, said:—

I have been given by our President, the

honor and great pleasure of moving that the thanks of this Association be tendered to Field Marshall, His Royal Highness the Duke of Connaught for his gracious kindness in consenting to become the Patron of the Canadian Public Health Association



and for his presiding at this, its inaugural meeting; and in so doing, to say a few words about public health.

I doubtless owe the privilege of moving the resolution to the fact that mine is the longest official career as a sanitarian of any in Canada, dating as it does from before Confederation, having been appointed to the Public Health Service of this country by Sir John Macdonald in May, 1866. For some years after that I had to fight the battle of progress in sanitation well nigh, if not altogether, single-handed. It was not until sixteen years afterwards, in 1882, that the first Provincial Board of Health was organized for Ontario, and not until five years later, in 1887, that one was organized for this Province of Quebec, with headquarters in this city under the presidency of that eminent sanitarian Dr. LaChapelle, which presidency to the great good fortune of the country continues to this day.

Now there are such Boards of Health in every one of the nine provinces of this Dominion, countless municipal boards of health, and there are many, many willing workers; and the enormous advance has been made of recognizing the importance of public health by our universities in the establishment of chairs in hygiene, and the giving of diplomas in public health under professors of such renown as our esteemed president.

There has thus been a gradual but very marked education of the public, and of the medical profession.

Take as an instance the progression of ideas about tuberculosis. Forty years ago it was regarded as hereditary, incurable, hopeless. Then came the idea of climate, the Riviere and Southern California; then altitude, our Northwest Territories, Denver and Colorado Springs. Who can measure the financial sufferings of the many who sacrificed their all to secure the change and the chance for their loved ones, the pain of parting with them, and the untold agonies of yearning homesickness which racked the hearts of the banished ones, and militated so much against recovery. Then, in the process of evolution, we reached the era when the sanatorium became the do-all and end-all of efforts to fight the white plague. Now we recognize its value only as a link, an important link, in the chain. But we have

come to know that the essentials are the outdoor life with regulated rest and diet. We have reached the preventorium, the dispensary with its all important domiciliary visits, the day camp, the night camp and the outdoor school. And our dwellings are studded with window tents, and with open air sleeping places on porch and verandah.

So in our protection from disease from abroad we have advanced from the rudimentary and chaotic conditions of pre-Confederation days to the greatly improved though not yet quite perfect scientific quarantine stations and modern quarantine service of to-day; a service the best results of which being preventive and negative, is apt to pass unrecognized. So long as people are well they naturally do not stop to think of the unceasing vigilance of those safeguarding them day and night on coast and frontier.

The discovery in the seventies and eighties of the micro-organisms that cause disease has enabled us to advance from the routine forty-day detention to the rapid sterilization of infected material by superheated steam and the chemicals in vapor and solution which have been proved alike in the laboratory and by experience to destroy the disease germs.

The recognition of the position of intermediate hosts is another great advance. The part played by the rat, the ground squirrel and the tarbagan in the dissemination of bubonic plague, of the mosquito in malaria and yellow fever, the tsetse fly in sleeping sickness, and the common house fly in many diseases, the either quite recent discoveries or re-discoveries of forgotten truths, as in the case of the connection of the rat with plague, for we read in the Bible that when the Philistines after they had taken the Ark of God were stricken with the plague, they endeavored to propitiate Jehovah by offering five golden images of the most noticeable result of the disease, and five golden images of the rat family, the probable disseminators of the plague.

Our present knowledge of the water-borne nature of cholera and enteric fever, and our recognition of cholera carriers and typhoid carriers are also marked advances.

Amongst other advances I might mention I cannot refrain from speaking of the formation of the Canadian branch of the



St. John Ambulance Association of the Order of the Hospital of St. John of Jerusalem in England. an Order of which Field Marshall, His Royal Highness the Duke of Connaught is the Grand Prior, and of which Their Royal Highnesses the Duchess of Connaught and the Princess Patricia are Ladies of Justice. The formation of this Canadian branch may fairly be claimed amongst our gains in public health. Its teachings and results in first aid, nursing and hygiene are directed to lessen the sum of sickness and suffering, and so aid in the betterment of the health of the people of Canada.

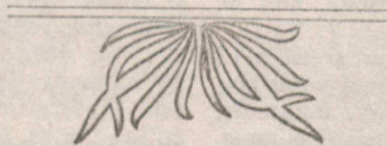
While, therefore, there is still much, very much educational work\* to be done, so much has been already accomplished that

we may well take courage to go forward.

And no such a gain has occurred in the past as the establishment of this Canadian Public Health Association, with our great good fortune in His Royal Highness having consented to become its Patron, and the stimulus of his presiding at this its inaugural meeting, graced as it is also by the presence of Her Royal Highness the Duchess of Connaught and Her Royal Highness the Princess Patricia.

I have the honor and the great pleasure of moving that a cordial and grateful vote of thanks of this Association be tendered to Field Marshall, His Royal Highness the Duke of Connaught, our Patron, for having so graciously presided at this meeting.

\* See review of "Nostrums and Quackery" under Library and Laboratory in this issue.





## MILITARY ASPECTS OF SANITATION

BY COLONEL G. CARLETON JONES, M.D., M.R.C.S.

DIRECTOR GENERAL, MEDICAL SERVICES, DEPARTMENT MILITIA AND DEFENCE, OTTAWA

It may be perhaps asked why a Convention of this character should have on its programme such a subject as Military Sanitation. It may be answered that Canada is a Military Nation, having, by law established, universal compulsory service.

The Militia Act 4, E. VII. Ch. 23., provides that all the male inhabitants of Canada of the age of 18 and upwards, and under sixty, not exempt or disqualified by law, and being British subjects, shall be liable for service in the Militia.

Canada in war would be a Nation in arms. It has no standing army, its Active Militia is only a nucleus of its requirements. The whole country would be in arms and all its people would be concerned in the health and welfare of the defenders of their homes.

Therefore, the subject of Military Sanitation must be of interest and is not out of place at any gathering such as this.

It takes an epidemic to shatter, if only for a little time, the self sufficient security of an insanitary sleeping community. That epidemic must strike that particular community and strike it hard, before it realizes the need and necessity of sanitary organization.

It takes a war to demonstrate the need of Military Sanitation but what is learnt from experience by the contestants is taken to heart by other nations. That is perhaps one reason why Military Sanitation precedes Civil Sanitation, at least of late years, though it must of need be dependent on the general development of the Science of Hygiene.

Military Sanitation differs from Civil Sanitation in the instant effects of its neg-

lect. To enable the Commander to bring the largest number of men possible at any given place, fit and well, and able to strike the enemy, is the aim and object of the Military Sanitarian. If he has not kept the human machines greased and oiled and fit, and the enemy has, then the effects of his neglect are at once apparent. The result is defeat and disaster, teaching by the lesson of experience that to win battles and campaigns the Commander must realise that his Sanitary service is of the same relative value as any other branch of the machine military.

The great triumphs of the Military Sanitarian during the last ten years, the Russo-Japanese war, the Manoeuvre Division at San Antonio, our own Militia Camps, especially Petawawa, have not been based on any new discovery in Hygiene. These results are due to organized, but simple, methods of application of thoroughly established hygienic facts.

In Military organization the application is easy, all modern educated Commanders realise the importance of these principles and have no hesitation in applying them by all the disciplinary powers at their disposal.

Without looking to war, we answer that Military sanitation is of interest to the community by the educative influence of its application at the camps of instruction.

Rural Sanitation is not nice to contemplate, the farm though a sanitary unit—is seldom a sanitary unit. At the camps of instruction the men of the rural districts see simple sanitary methods, these methods can easily be applied at their homes, and the sanitary conditions of the farms and villages much improved.

I go further than this and say, that the



practical sanitary lessons of the training camp are the only lessons available to the rural population.

We hope by the training in applied sanitation at our Militia camps to be able to meet the enormous demands that will be made in the hour of war. We hope, also, to have the help of the public health officials throughout the Dominion, we wish to

bring them into close touch with the Militia, for the Sanitary work of a Mobilized Canadian Nation will be a mighty one. It is of no avail to say that the day will never come; the history of our Empire during the past few months clearly demonstrates that the danger of war exists, and will always exist to the Empire and to our Dominion.

## ENTRETIEN AU PEUPLE LA TUBERCULOSE

PAR LE DR. J. GAUVREAU.

REGISTRAIRE DU COLLEGE DES MEDECINS ET CHIRURGIENS, P.Q., MEMBRE DU BUREAU MEDICAL DES ARTISANS C.F., MEDECIN AU DISPENSAIRE DE L'ENFANT JESUS.

L'intérêt que nous portons à l'œuvre des dispensaires, la correspondance de vos sentiments et les résultats pratiques obtenus, chez nous, dans notre belle paroisse du Saint-Enfant Jésus de Montreal, m'ont fait accepter avec empressement l'honneur de vous ennuyer, l'espace d'une conférence.

C'est généralement un plaisir pour moi que d'ennuyer les autres de cette façon. Ce soir, cependant, conférencier de la onzième heure, n'ayant eu que juste le temps de réunir mes notes sur le sujet désigné, sans même pouvoir les relire, je sens le besoin de solliciter votre indulgence. J'ai l'assurance de la part des officiers de votre association médicale qu'elle m'est acquise, et sans autre préambule, j'entre dans le vif de la question.

\* \* \*

J'ai à vous parler, ce soir, Mesdames, à la lueur des éclairs, d'un des pires ennemis du genre humain, d'une maladie qui de tout temps a multiplié ses victimes, dont la description fut connue et signalée par les observateurs de tous les siècles, qui a fait le sujet de recherches ardues, pénibles, trop peu souvent fructueuses, dont les savants ne se désintéressent jamais, et dont malheureusement les hommes, les enfants, et les animaux ne cessent de mourir. Cette maladie de tous les climats, de tous les temps, de tous les âges, de toutes les époques et de toutes les con-

ditions, c'est la tuberculose.

Pour savoir d'où lui vient son nom, et avant que de connaître sa manière d'agir, il vous faut, Mesdames, une notion très succincte et facile à retenir sur la composition de la charpente et des tissus de l'homme.

Il ne vous faut guère que retenir ceci: l'homme est l'assemblage le plus parfait qui soit au monde de cellules animales.

Tout ce qui s'attaque à la nature intime de la cellule animale, entrave son développement, la détériore ou la désagrège, s'attaque au principe même de la vie généralisée dans l'être et concourt à hâter sa mort.

Depuis que nous savons que toutes les maladies infectieuses sont microbiennes, c'est-à-dire ont pour agent un petit animal infinitésimal, qu'on appelle microbe, les ennemis de la cellule vitale, pourchassés avec acharnement sous les regards inquisiteurs des microscopes, ne se comptent plus.

Le plus tenace dans ses tranchées, et le plus difficile à détruire une fois qu'il a élu son domicile quelque part dans l'être, c'est le microbe de la tuberculose, qui tire son nom du fait que son petit animal, le bacille de Koch, transforme les cellules auxquelles il s'attaque en autant de petits tubercules qui donnent à l'organe un aspect tout à fait caractéristique, et finit invariablement à faire mourir le sujet qui le porte, s'il généralise son action dans



l'être ou simplement dans un organe essentiel à la vie.

Il n'y a pas longtemps, cependant, que ce nom lui est attribué.

Autrefois généralement, et encore aujourd'hui pour tous ceux qui ignorent sa nature et ses ravages clandestins, la tuberculose n'est autre que la consommation ou la phtisie pulmonaire, mots très caractéristiques qui font bien comprendre qu'elle consume vivant celui dont les poumons sont à la fois le foyer et l'aliment de ce microbe destructeur.

Pas n'est besoin de vous faire un long tableau de cette forme de la tuberculose, dont l'évolution est parfois très longue chez certains héréditaires, qui tantôt évolue dans deux ou trois mois sous la forme galopante, voire même dans deux ou trois semaines sous la forme granulique.

Un jeune homme, une jeune fille ou une jeune femme jusque là remarquable par son teint clair, ses yeux brillants et ses pommettes roses, s'éveille, un matin, la gorge sèche et la voix enrouée. Quelques quintes de toux débarrassent la voix et la gorge, et à l'heure du déjeuner, rien n'indique encore qu'un ennemi terrible a envahi la place. Cependant que chaque matin les symptômes du début se répètent et se prolongent: les chairs, les formes se décolorent, s'amollissent et tombent; les frissons apparaissent; les transpirations, surtout nocturnes, s'affirment; les douleurs se multiplient dans une poitrine déjà vouée qu'une toux incessante déchire; l'expectoration est abondante; la tuberculose pulmonaire est confirmée.

Le poitrinaire, bien que sceptique sur la nature de son mal, perd tôt sa gaieté. L'angoisse le suffoque; il lit sur les figures de son entourage, il sent qu'on répète tout bas, pour lui, ce que tant de fois il a entendu dire pour d'autres:

'Il partirà à la chute des feuilles.'

Sa tristesse, d'abord concentrée, devient parfois bavarde et méchante. Il est autoritaire et impatient. Ses passions persistent aussi, quand elles n'augmentent pas jusqu'à la fin, ce qui fait que mourir tuberculeux c'est presque toujours mourir en saint, tandis que mourir tuberculeux et dans l'indifférence religieuse, c'est généralement conserver jusqu'au dernier soupir l'attachement à ses rêves, l'attachement à la vie qu'on a voulu faire courte et bonne, l'attachement à tout ce qui passe, sans

guère se soucier de l'au delà qui ne passe pas!

Tel est le consommateur que tout le monde connaît, ce propagateur classique du microbe de la tuberculose, à la fois victime et bourreau inconscient.

Ce n'est pas pour vous, Mesdames, qu'on a dit: "Laissez les illusions aux âmes faibles, elles sont incapables de supporter la lumière," (Ibsen); aussi, comme j'insiste à vous dire que vous vous trompez et que vous vous trompez grandement, si vous êtes sous l'impression que les seules victimes de la tuberculose sont ceux qui toussent et qui crachent!

Pour connaître toutes les victimes de la tuberculose, il faut compter non seulement les poitrinaires, mais encore à peu près tous ceux qui, ne toussant pas, sont bossus, sont boiteux; les porteurs de glandes au cou, de végétations dans la gorge, de tumeur dans le ventre ou ailleurs; tous ceux qui souffrent de façon incommode et persistante du côté des reins, du côté de la vessie, et du côté des organes génitaux; à peu près tous les enfants qui meurent de méningite; un grand nombre de ceux que l'on classe, faute de moyens investigateurs propices, parmi les victimes de la diarrhée infantile; les adultes à intestins déraillés ou à boyaux tordus; les infirmes de toute espèce et les suppurants de toute sorte, toutes catégories qui traînent misérablement leur existence. Le dénombrement de ces malades étant fait, retranchez du total 10% en cas d'erreur, vous restez avec 90% que vous pouvez, sans crainte, classer parmi les victimes de la *Tuberculose*.

Et pour être d'accord avec les statistiques officielles, sachez qu'elles accusent, dans notre province de Québec trois mille décès par année et accordent à la *Tuberculose* une mortalité de 12%, quand les statistiques du monde entier réunies nous disent que la moyenne de la mortalité, en général, est de 14 pour 1,000.

Et encore, chez nous, la statistique demeure incomplète, car elle ne tient pas compte d'une foule de décès enregistrés au compte de maladies diverses que ne se sont terminées fatalement que parce que les sujets étaient porteurs d'une tuberculose latente.

Pourquoi la réalité affecte-elle à la *Tuberculose* un si fort contingent de victimes?



C'est que le microbe de la Tuberculose est, de sa nature, excessivement localisateur et résistant.

*Localisateur*, c'est-à-dire qu'il se cantonne à l'endroit le plus vulnérable de l'économie qui lui offre une porte d'entrée, et poursuit avec acharnement son travail de désorganisation de la cellule animale, jusqu'à ce que, impuissante à lutter contre lui, l'économie tout en tière soit infectée, ou le lieu de son élection complètement détruit.

*Résistant*, c'est-à-dire que de tous les agents physiques, aucun ne le tue. Les courants électriques ne sont pour lui qu'un bain de soleil. La chaleur sèche à 100 degrés centigrades ne l'incommode pas. Il résiste au froid le plus intense, à la congélation persistante, à la salaison, à la putréfaction; et une fois qu'il a quitté sa victime, à l'aide des crachats ou de la supuration des malades, il n'y a guère que trois agents qui puissent le détruire: *le feu, l'ébullition*, et certaines substances médicamenteuses qu'on appelle les *anti-septiques*.

Ceux qui traitent de la question, dans les vieux pays, signalent comme l'une des causes principales de la tuberculose le *paupérisme ou la misère*.

Il fait bon de constater que tel n'est pas le cas chez nous. Les paresseux de profession sont assez rares dans notre province, et à qui veut, le travail arrive plein les bras. La maladie peut amener la misère mais il est rare que la misère soit cause de maladie. Chacun, semble-t-il, aspire et parvient à une modeste aisance; et si, malgré des moyens relatifs ordinaires, l'on ne se donne pas le confort hygiénique qui convient, c'est que l'éducation fait défaut et que l'on sacrifie le bien être à un luxe inutile.

Mais si, par exemple, sous le vocable de la misère il convient, comme je le crois, de comprendre *l'alimentation défectueuse et la mauvaise hygiène*, je n'hésite pas à dire, qu'ici comme aux vieux mondes, la misère entre en cause et prépare indubitablement le terrain à la tuberculose par excès, comme là-bas elle le prépare par défaut. Qu'un ballon soit inserviable, parce qu'on ne le souffle pas assez ou parce qu'on le souffle trop, c'est toujours un ballon inserviable!

C'est en parlant des causes de la tuberculose qu'il convient de signaler *l'esprit*

*hospitalier canadien-français*, à la fois digne d'éloges et d'amers reproches.

Je passe sous silence les éloges et m'attarde, à dessein, à déplorer cette coutume profondément enracinée, chez nous, de consacrer aux visiteurs, aux parents éloignés, à ceux qui ne passent que quelques heures de l'année en notre compagnie, si ce n'est au beau de la belle, la plus grande chambre de la maison, celle que, tous les jours, le soleil inonderait de ses bienfaisants rayons de lumière si, sur les croisées hermétiquement closes, ne se superposaient, comme sur un oignon les pelures, les petits rideaux d'en bas, les petits rideaux d'en haut, les toiles vertes, jaunes ou blanches, les grandes rideaux de guipure, de dentelles ou de points-d'esprit, et les imposantes mais sombres portières en chenille!

Savez-vous, vraiment, ce que vous faites, bonnes mères de famille, en agissant ainsi? Vous privez la plante de ses rayons de lumière. Vous laissez se développer, dans l'ombre et l'humidité d'une salle de famille mal aérée et sans soleil, au centre de votre habitation, les pauvres petits qui devraient plutôt, de six heures du matin à midi ou de midi à six heures du soir, prendre leurs ébats dans le salon d'en avant, sans tapis ni rideaux ni tentures mais trempé de rayons de soleil.

Quand on y songe sérieusement, l'on ne peut s'empêcher de dire qu'elle est vraiment criminelle, cette coutume de consacrer à la vanité de quelques rares réceptions, souvent au plaisir de paraître à l'aise sans l'être, la plus spacieuse et la meilleure pièce de nos habitations. Il faut réagir contre cette coutume, et nous n'y parviendrons que si l'amour maternel, instruit de ses devoirs, comprend qu'il faut immoler au bien-être de l'enfant, une à une, les exigences de la vie sociale mal entendue, de cette vie toute faite de compromission, d'étalage, très souvent de regrets et de sacrifices. Vivons selon nos moyens, certes, j'en suis, mais en autant que cela veut dire, élever nos enfants, dans la mesure de tous les moyens à notre disposition, et qu'il faut nous tenir pour coupables de lèse-santé particulière et publique, si nous sacrifions aux vaniteux raffinements de notre société, ne serait-ce qu'un rayon de soleil ou quelques centimètres cubes d'air pur.

Je ne suis pas de ceux qui croient qu'il



faillie consulter le calendrier pour savoir quand il convient de prier le Seigneur de nous donner des enfants. La fécondité incessable des mères canadiennes, à la campagne surtout où la tuberculose est presque inconnue ne devient, semble-t-il, qu'une cause de tuberculose bien peu importante, dans les grands centres, où il faut accuser non pas, comme certains auteurs le prétendent, *le surmenage génital de la femme*, mais bien plutôt le manque d'air pur, l'habitation humide et malsaine, les logis sans soleil, les ateliers insalubres, les millieux publics et les parcs contaminés, quand ce n'est pas, pour les classes aisées ou les femmes légères, le surménage social, les veilles prolongées, les parties de bridge au petit jour, les théâtres, les spectacles, les intrigues diplomatiques ou amoureuses. Sans doute, faut-il tenir compte des prédispositions héréditaires et des dangers inévitables de la vie courante, mais que nos femmes reprennent à cœur leur rôle de mères, et, à la ville comme à la campagne, elles resteront fécondes et vigoureuses, et les Cornélies de tous les pays du monde leur envieront leurs joyaux.

Mesdames, sous prétexte de santé, ne jouez pas à l'américaine: ce n'est pas, quoiqu'on en dise, un jeu d'enfant. En supposant qu'il éloignerait de vous la tuberculose, ce que personne n'a encore tenté de prouver, soyez certaines, laissez-moi vous le dire en passant, qu'on n'entrave pas impunément, dans sa marche, au point de vue physique, (sans tenir compte du côté moral), une fonction comme celle des organes générateurs.

Je n'ai pas à reprendre la thèse qu'on a dû, déjà, développer devant vous. Je tiens, cependant, à m'autoriser du témoignage d'un savant, le Dr. Letulle de Paris, pour conclure comme il concluait, dans un rapport au congrès international contre l'alcoolisme, tenu à Vienne en 1901, que de toutes les maladies chroniques l'intoxication lente par l'alcool est celle qui prépare le mieux à l'invasion de la tuberculose pulmonaire, celle qui aggrave le plus sûrement, en frappant d'impuissance le traitement basé sur l'hygiène et sur la diète.

Enfin, devons-nous le dire et nous y attarder un peu, dans l'immense majorité des cas, c'est par des poussières virulentes, en suspension dans l'atmosphère, que la maladie se contracte. Les personnes saines

introduisent ces poussières dans leurs poumons en même temps que l'air inspiré.

Il y a à peine 45 ans, en mil huit cent soixante-cinq, que Villemin indiquait à l'Académie de médecine de Paris les dangers de contagion de la tuberculose.

En 1882, Koch, savant allemand, découvrait l'agent de l'infection tuberculeuse.

Au congrès de la tuberculose, en 1898, l'on mettait à l'ordre du jour le rôle de la contagion.

En 1899 à Berlin, en 1901 à Londres, en 1905 à Paris, et je dois ajouter avec orgueil, en 1906 au congrès des médecins de langue française de l'Amérique du Nord, à Trois-Rivières, le fait saillant mis en lumière par de multiples observations, fut que la contagion est la cause incomparablement la plus fréquente de la tuberculose, et que le crachat du tuberculeux est le principal agent de la contagion par l'infection des locaux d'habitation et des places publiques. A ces divers congrès, il fut encore prouvé, expérimentalement, que la contagion ne s'opère pas seulement par les produits des crachats desséchés et mélangés aux poussières, mais qu'elle peut s'effectuer dans la dissémination des particules des crachats que les phthisiques projettent autour d'eux par la parole, la toux voire même par l'éternement.

Parmi les nombreuses recherches sur les contagions de la tuberculose intéressantes à connaître et fort concluantes, je me permets d'en rapporter deux qui ne manquent pas d'originalité, et à l'aide desquelles on peut aisément étayer des conclusions pratiques.

Vers 1896, dans une municipalité du nord de l'Europe, on avait constaté, en très peu de temps, une vingtaine de cas de tuberculose, et ces cas se recrutaient, parmi ceux qui avaient à faire des recherches aux archives municipales. L'idée vint à un médecin d'examiner ces documents, et l'on put constater que toutes ces paperasses fourmillaient littéralement de bacilles de Koch. L'enquête permit d'établir que longtemps auparavant un des employés aux archives avait l'habitude de ner les pages. C'était évidemment de cette façon que toutes les pièces s'étaient infectées au point de communiquer la toux à ceux qui venaient plus tard les feuilleter.

Voici un autre fait que je livre princi-



palement à la considération des jeunes filles, volages ou non, assez intelligentes pour comparer elles-mêmes et conclure que de la langue aux lèvres le pas est court.

Le docteur Bousquet, de Paris, avait dans son service d'hôpital un tuberculeux, grand collectionneur de timbres-poste. Ce malade faisait un échange de timbres avec ses camarades de salle. Le médecin craignant une contamination quelconque par les timbres mouillés par la salive du tuberculeux, se décida à faire une expérience.

Trois cents timbres souillés par le malade furent placés pendant vingt-quatre heures dans de l'eau stérilisée. Cette eau fut injectée à huit lapins. Les huit lapins moururent de la tuberculose!

Parmi les divers moyens suggérés, non pas pour enrayer cette maladie mais pour diminuer le nombre de ses victimes, il y a lieu de distinguer entre les moyens de préservation pour ceux qui ne sont pas atteints, et les moyens d'assistance aux victimes du mal.

*Les moyens d'assistance aux victimes du mal*, consistent surtout dans l'œuvre du placement des enfants tuberculeux à la campagne, dans l'œuvre des sanatoriums, dans le genre de ceux de Rainbow Lake, de Ste-Agathe des Monts, et dans l'œuvre des dispensaires dans le genre de celui que l'initiative privée, associée, à l'initiative religieuse, vient de fonder à Montréal: tous moyens fort complexes en eux-mêmes et qui demanderaient à être spécialement expliqués. Toutefois, peut-on dire qu'ils synthétisent tout le traitement de la tuberculose et se résument à trois choses: une bonne alimentation, du soleil et de l'air pur.

Vous entendez souvent parler des sanatoriums, mais vous êtes, comme le grand nombre, sous l'impression qu'une cure, en un tel endroit, n'est possible qu'aux riches, aux fortunés. Je tiens à vous convaincre du contraire. Quiconque habite une maison saine et peut s'exempter du travail, peut, s'il est tuberculeux, transformer sa demeure en un sanatorium, puisque les bases du traitement sont: le repos, la suralimentation et l'air pur.

La semaine dernière, en compagnie de votre président M. le Dr Germain et de M. le Dr Jeannotte, mes collègues du bureau médical de la Société des Artisans Canadiens-Français, j'ai eu l'avantage d'aller faire une étude sur place, au sanator-

ium antituberculeux fondé par l'ordre des Forestiers Indépendants, à Rainbow Lake, dans l'Etat de New-York.

Je crois vous intéresser par la description de ce sanatorium qui ne diffère des nôtres que parce qu'il n'est destiné qu'aux membres tuberculeux d'une même association et qu'il est l'œuvre de la mutualité.

*Rainbow Lake* est situé à 1800 pieds au-dessus du niveau de la mer, dans les Adirondacks. Un chemin de fer longe ses bords. Le niveau auquel il se trouve, son isolement et ses facilités d'accès en font un site idéal pour les victimes de la Tuberculose. Les Forestiers Indépendants l'ont compris. Ils ont acquis des centaines d'acres de terrain, autour de ce lac, et ont construit un sanatorium destiné exclusivement aux tuberculeux de l'Ordre.

Ce sanatorium comprend deux corps de logis principaux dont l'un "The Main Building," est à trois étages avec, à chaque étage, une large véranda munie de passes en cuivre, et de vastes chambres bien aérées et confortablement meublées. Ce corps de logis destiné aux tuberculeux avancés peut hospitaliser douze à quinze malades par étage.

Le second corps de logis appelé "The Cottage," est un pavillon séparé, à proximité du premier, réservé aux tuberculeux de la première période, c'est-à-dire à ceux dont l'amélioration est certaine et la guérison probable. "Le Cottage" loge confortablement une dizaine de malades.

A part ces constructions, d'autres constructions, de moindre importance mais non moins indispensables au bon fonctionnement de l'œuvre, constituent les dépendances du sanatorium. Il y a la résidence privée du Surintendant, le pavillon des servantes, une immense glacière, un magasin à provision, un four crématoire, une salle à désinfection, un hangar, des écuries, etc.

L'installation, telle quelle, y compris l'aménagement, a coûté, nous dit-on, \$30,000, et le coût de revient de chaque malade est à peu près \$12.00 par semaine; c'est-à-dire que pour rencontrer les besoins de cinquante tuberculeux, l'Ordre des Fesestiers Indépendants a déboursé, d'un seul coup, \$30,000, et a dû s'assurer semblable revenu, annuellement, pour le fonctionnement de l'œuvre. Pour arriver à ce résultat chaque membre doit verser, mensuellement, à la caisse de l'œuvre, un sou!



Quel traitement suivent les tuberculeux dans ce sanatorium, êtes-vous anxieuses de savoir. Il se résume à ceci: les malades viennent surtout y faire une *cure d'air* aidée et complétée par l'emploi méthodique et judicieux de toutes les ressources de l'Hygiène, par une alimentation générale mais réglée et surveillée, par le repos absolu dans certains cas, par l'exercice toujours modéré et proportionné aux forces du malade.

Ce qui fait le succès du traitement, c'est l'observance du règlement.

A 7hrs l'on se lève. A 7½ l'on déjeune, à 8 hrs l'on se recouche sur des chaises longues, en plein air, sous les vérandas. A dix heures l'on se pèse. Durant l'avant-midi, l'exercice varie de dix minutes à une heure, avant le diner que se prend à midi. La sieste pour tout le monde se prolonge de 1hr. à 4hrs. A quatre heures l'on fait enregistrer son degré de température. Si le thermomètre dépasse seulement d'un dixième la normale, l'on se recouche, en plein air, jusqu'au souper servi à 6hrs. Pour les fiévreux, et c'est le grand nombre, la sieste au grand air est encore obligatoire jusque'à neuf heures, alors que l'on réintègre le logis pour le coucher dans les chambres fenêtres ouvertes, à mains que l'on ne préfère s'emmailloter au grand air, pour la nuit. Aucun remède, aucun médicament n'est administré; mais par contre, quand il se lève ou quand il se couche, quand il va à la consultation ou quand il en revient, chaque fois qu'il juge son estomac capable de les supporter (et il entraîne son estomac à ce régime), le tuberculeux, au sanatorium, se gave de lait et d'oeufs crus, de façon à ce qu'en moyenne, chaque patient ingurgite, tous les jours, entre les repas, une pinte de lait, et mange une douzaine d'oeufs crus. L'air sec et vivifiant de l'altitude où il se trouve et le besoin de restauration des poumons du malade expliquent pourquoi il supporte facilement cette suralimentation; mais encore, faut-il généralement l'entendre lui-même nous dire qu'il s'en trouve bien pour le croire. L'estomac le plus robuste d'un ouvrier d'une usine quel-conque ne saurait résister huit jours à pareil régime alimentaire; c'est que le tuberculeux, au sanatorium, s'imprègne constamment d'air pur, sec et vivifiant qui active les échanges, tandis que l'artisan ne respire qu'un air contaminé, à peine suffisant au besoin de

la respiration, et plutôt de nature à l'en-traver.

Quel est le résultat du traitement?

Nous avons posé cette question au Surintendant médical de Rainbow Lake qui n'a pu nous répondre faute de statistique. Il n'y a pas encore une année que ce sanatorium fonctionne. Il est encore dans sa période d'organisation, et il n'a pas eu, jusqu'ici, de personnel vraiment stable. La réponse, nous l'avons plutôt obtenue des malades, en conversant avec eux. D'aucuns, même, se croient parfaitement guéris, parce qu'ils ont été fidèles au traitement depuis cinq ou six mois, et qu'ils ont l'assurance de pouvoir quitter bientôt le sanatorium. Malgré l'arrêt de mort écrit sur la figure d'un grand nombre, il nous a été particulièrement agréable de constater quel immense soulagement moral cette institution prodigue à ses membres tuberculeux, si elle ne parvient que rarement à les guérir ou à améliorer sensiblement leur état. A peu d'exceptions près, les patients de Rainbow Lake appartiennent à la classe ouvrière. Déclarés tuberculeux par les médecins de leur cour respective, ils ont obtenu leur entrée gratuite au sanatorium de l'Ordre, où ils vivent d'air et d'espérance, selon qu'il convient à leur état, tandis que leur famille garde pour elle seule la rente hebdomadaire que leur prodiguent les bienfaits de la mutualité. Le chef malade s'achemine vers la guérison, du moins il l'espère, et cette espérance est doublée par la consolation de se voir, à l'instar des riches et des fortunés, dans le milieu le plus propice à son état, sans avoir à priver sa famille du fruit de ses économies, ni des bienfaits de son assurance.

C'est là, croyons-nous, le plus beau résultat auquel puisse aspirer la mutualité, parce qu'ainsi non seulement elle travaille au bien-être matériel de ses membres, mais assure à la plus nombreuse classe de ses malades un état d'âme auquel, sans cette oeuvre, la majorité ne saurait atteindre.

Nous avons reconstruit, dans ce sanatorium, des patients de toutes les nations et particulièrement des Canadiens-Français venus de partout, depuis les bords du St-Laurent jusque des rives de l'Ohio. Il ne leur manque, disent ceux-ci, que la voix du prêtre et les consolations du culte religieux. Tous sont unanimes à louer l'administration et les bienfaits du sanatorium de Rainbow Lake. Le Comité médical de



la Société des Artisans Canadiens-Français fut heureux de joindre son témoignage au leur pour reconnaître le mérite de l'œuvre, le dévouement du personnel, et les bienfaits pratiques de la mutualité bien comprise appliquée aux œuvres sociales de ce genre, et en autant que j'y suis personnellement concerné, je forme le voeu que nos sociétés mutuelles canadiennes-françaises catholiques s'entendent, et prennent l'initiative d'un aussi beau mouvement. Pour elles, c'est le plus sûr pas à faire pour enrayer l'enrôlement de nos compatriotes dans des sociétés déclarées, naguère encore, par le Pape Léon XIII, suspectes et dangereuses.

Quant aux moyens de préservation, comment les appliquer?

Tout simplement, Mesdames, en commençant par mettre en pratique, pour soi-même, les conseils qui se dégagent des considérations familières que je viens de faire. Une fois que l'on est convaincu qu'il importe à notre santé personnelle de se prémunir contre un mal, la vie de l'être étant en cause, tout préjugé tombe, toute coutume, pour séculaire qu'elle puisse être, est abandonnée.

Combien avez-vous connu de grand-pères et de grand-mères qui couchaient leurs fenêtres ouvertes? Et cependant, cela est d'usage courant aujourd'hui, et loin de s'en plaindre, l'humanité s'en trouve mieux.

Il a fallu édicter des lois sévères pour défendre de cracher sur le parquet des édifices publics, dans les chars, sur les trottoirs et dans les parcs. Les lois édictées ne seront efficaces qu'en autant qu'elles seront secondées par l'éducation familiale, et qu'elles ne seront pas enfreintes brutalement par ceux qui les appliquent ou veulent les faire respecter.

L'on verse des larmes qui semblent bien sincères, en haut lieu, et l'on se plaint amèrement des progrès de la mortalité infantile, des épidémies de fièvre typhoïde, ou de l'invasion de la tuberculose. Mais, à qui la faute si certaines fabriques ne sont que des cages à microbes?

A qui la faute si, au sein même de la métropole commerciale de notre vaste pays, il y a tant d'ateliers insalubres, tant de maisons malsaines à démolir et qui ne le sont pas?

A qui la faute si, pour faire fleurir son *bédit négoce*, le Juif épargne même l'air

à ceux qu'il emploie?

A qui la faute si certains quartiers de la ville ne sont plus appelés autrement que nids à microbes?

A qui la faute si la mortalité infantile augmente partout où la conscience particulière ne s'est pas révoltée?

A qui la faute si le "syphilitique" et le tuberculeux se désaltèrent à la même source d'eau impure que nos enfants, dans les parcs?

A qui la faute si, sous le couvert des lois, au delà de mille cafés et restaurants versent à boire au peuple dans des verres rincés à la façon des restaurateurs, dans la ringure des verres de ceux qui ont bu précédemment et toujours essuyés avec la même toile souillée?

A qui la faute si la licence des hôteliers leur permet d'arracher le sou aux quêteux et les copes du tramp en leur donnant des free lunches que l'expérience des lapins de tantôt prouverait être l'une des causes les plus certaines de tuberculose, dans la cité?

A qui la faute si, au pied de la montagne aux flancs de laquelle s'ébattent joyeusement nos chers petits, pullulent des germes de mort, si les bacilles de Koch balayés dans toutes les rues s'y prélassent au soleil de l'été, en attendant qu'ils s'endorment paisiblement sous les neiges de l'hiver, pour revivre, plus vigoureux, en compagnie de millions d'autres, au retour du printemps?

A qui la faute enfin si, malgré les expositions antituberculeuses, malgré les commissions royales et malgré les congrès, la tuberculose bat son plein et nous enlève, à sa part, chaque année, 12% de nos morts?

La faute en est autant aux particuliers qu'aux pouvoirs publics.

Ce qu'il importe pour vous, Mesdames, et quand je m'adresse à vous je m'adresse à toutes les familles canadiennes-françaises, c'est de vous renseigner d'abord, de vous convaincre ensuite, et puis, après cela, de vous révolter! Et par révolte, j'entends insister sagement mais énergiquement, chacune dans sa sphère, dans la mesure de toutes les influences à votre disposition.

Quand vous aurez appris à vos enfants qu'il ne faut jamais cracher par terre; quand vous leur aurez fait prendre l'habitude de ne jamais mettre dans leur bouche des objets souillés, sous de cuivre ou verres de restaurant; quand vous leur aurez donné



des chambres bien aérées; quand vous aurez fait disparaître les coins noirs de votre maison; quand vous saurez que la propreté est faite non pas de dentelles, de chiffons, de froufrous et de ramasse-poussière, mais d'eau pure, d'air salubre et de rayons de soleil; quand vous serez convaincus de la nécessité qu'il y a de travailler à la culture physique en même temps qu'à la culture intellectuelle et morale de vos enfants; quand vous suivrez à la lettre les prescriptions de l'hygiène dans votre domicile particulier; quand vous aurez la notion personnelle du danger que vous courez dans les pares et sur la rue; quand vous comprendrez qu'il importe de ne pas cracher dans un lieu public, sans souci de contaminer vos semblables; alors, nous pourrions espérer voir diminuer le fléau de la tuberculose. C'est l'éducation de la famille qu'il importe de faire pour ensuite édifier celle de la masse et de ceux qui la gouvernent.

Le souci de l'intérêt du prochain n'est pas assez répandu chez nous. Combien n'arracheraient pas, sur leur parterre, un brin d'herbe qui, chez le voisin ou dans un parc, cassent les branches pour cueillir les fruits ou simplement les fleurs? Il importe pour rendre possible l'application des lois de l'hygiène de persuader à chacun que l'intérêt collectif n'est, en ces matières, que la somme des intérêts individuels.

Parviendrons-nous à cela? Oui assurément, si nous sommes secondés privément et publiquement.

\* \* \*

Je crois en avoir dit assez pour faire comprendre comme l'étude de cette question en appelle d'autres sur sa route. Je n'ai guère soulevé, cependant, qu'un coin

du voile: A vous de compléter mes données imparfaites et surtout de mettre en pratique les conseils que vous aurez saisis au vol.

Heureusement, l'initiative privée n'est pas seule au combat.

Les congrès médicaux de tous les pays du monde ont, tour à tour, mis cette question de la tuberculose à l'étude et tenté de la résoudre. Les gouvernements, soucieux de la vie de leurs administrés, ont favorisé ce mouvement. Disons, à l'honneur du nôtre, qu'il a nommé une commission antituberculeuse dont le rapport défraye les *statistiques* de tous ceux qui s'occupent actuellement de la question. Enfin, les sociétés philanthropiques de deux mondes dans la mesure de leurs moyens et selon la conception sociale de leurs administrateurs, contribuent à la solution de ce difficile problème. Chez nous, la Société St-Jean-Baptiste de Montréal, en tête du mouvement, organise pour l'année prochaine la plus complète exposition antituberculeuse que nous ayons encore vue. C'est plus qu'un gage de succès; et, si j'ai bonne souvenance, sous le souffle inspirateur d'un de ses membres les plus distingués, M. le chanoine Lepailleur, mon ardent et infatigable curé, à sa dernière réunion bi-annuelle, la Société des Artisans Canadiens-Français est entrée de plein pied dans le mouvement.

De l'union de toutes ces bonnes volontés, espérons-le, de ces efforts combinés sortira, pour le peuple, une éducation antituberculeuse solide, une éducation toute faite de convictions et de principes hygiéniques appliqués, dans la famille, à l'école, dans les lieux publics et partout; de sorte que s'il est vrai que nous naissons tous plus ou moins tuberculisables, ce sera le petit nombre qui mourra tuberculisé.

## ENGINEERING PROBLEMS CONNECTED WITH BIOLOGICAL SEWAGE TREATMENT

BY T. AIRD MURRAY, M. CAN. SOC. C.E.

The term, "Biological Sewage Disposal," is here used to designate systems which depend upon artificial filters for the reduction

of putrescibility. The term does not include natural systems, such as "Land Intermittent Filtration," or "Broad" or "Sub-



Irrigation," all of which may provide similar results with reference to cause and effect.

Efficiency results and the design of any system of biological sewage disposal depend upon the combined efforts and conclusions of the chemist and the engineer.

Up to within a recent period the chemist has taken little or no interest in sewage disposal. The engineer has been left alone to build sewage disposal works upon entirely empirical bases without reference to any axiomatic data relative to the chemical and biological processes accompanying the reduction of putrescible matters to non-putrescible. This has been well illustrated in Great Britain, which presents the greatest variety of sewage disposal systems to be found. It is not uncommon to find two adjacent towns discharging their effluents into the same river with entirely different systems of sewage disposal constructed in order to obtain the same results.

Great Britain has been, and remains, the post-graduate field, where the schoolman can study every feature of failure as well as of success. This is to a large extent due to the fact that the "Old Country" presents the earliest attempts at sewage purification, and that other countries have profited by its experience, more or less.

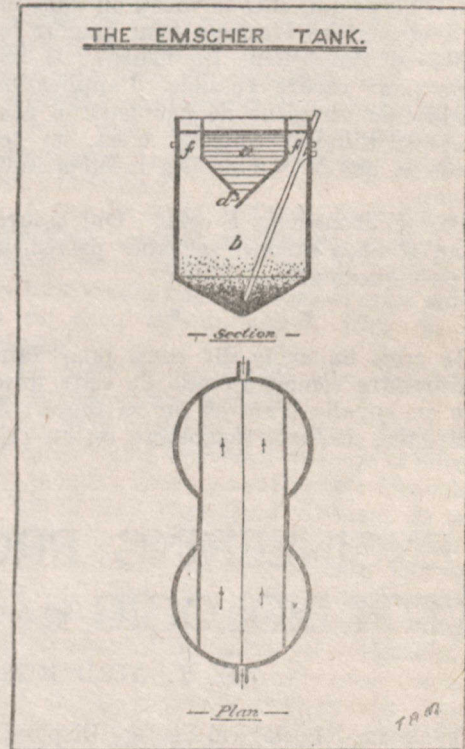
Great Britain itself has recognized the chaotic and undetermined want of defined principles, and within recent years formed a Royal Commission to report upon the whole question of sewage disposal. Germany and several of the American States also determined to get at the base of things, and make an effort to put the question on a scientific basis. The Lawrence Experiment Station of Massachusetts as representing the American States and the Hamburg State Institute of Hygiene are illustrations of this scientific activity.

The result of this scientific activity is simply this: that the man who designs works can guarantee certain results if they are based on certain data.

There is no longer any reasonable apology for the hypothetical theories on which either the septic tank or the contact filter bed were founded. These are taken as simple illustrations of empirical conclusions based on no scientific data relating to cause and effect. It was held that, with a septic tank it was necessary to exclude light,

independent of the fact that the scum forming on the surface of such tanks excluded all light. It was also held that the exclusion of air was necessary, although it is necessary in order to provide ultimate oxidation or non-putrescibility. It was further held that a contact filter bed was the ideal method of obtaining oxidation of a sewage liquid, in spite of the fact that during the period of contact all oxygen was excluded from the bed, and that it acted at such times as a septic tank.

It required the Fifth Report of the Royal Commission on Sewage Disposal, with all its experimental work at the original installation and elsewhere, to prove the whole fallacy of total sludge elimination, and also the experiments of Dunbar, of Hamburg, to show that it required just three times the area of filtration works to oxidize a septic effluent than a fresh sewage effluent. It even took a lot of hard arguing to prove that no oxidation of sewage took place in a contact bed when the bed was full of sewage and no oxygen was present.



What was the excuse for the contact bed? Simply this: no sooner was it found that



liquid sewage was rendered non-putrescible by passage through sand or gravel, than the problem was presented of equal distribution over the sand and gravel. This problem was answered by the easiest and most apparent solution of simply filling the gravel or sand bed so that every particle of material was brought into contact with the sewage. When the filter became mature, then nitrates and nitrites were found in the effluent. It was judged that the bed should have a period of time allowed when saturated with sewage during which certain bacteria might have their fill; and that it should have a further period of rest when the sewage was drawn off, allowing the same bacteria to recuperate. It required the chemist to point out that the supposed time of rest was really the period of bacterial activity, and that the time of contact was just so much waste time, during which the sewage was robbed of any dissolved oxygen it originally contained.

to certain defined principles which are now being held in common by most authorities. The subject of sewage disposal, instead of being conglomerate, may be said to be, at least, approaching the crystallized stage.

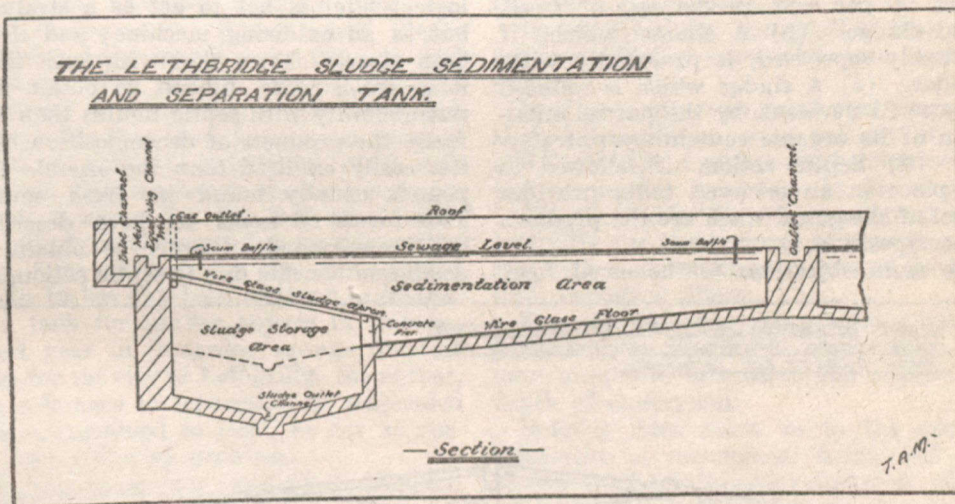
The limited space of time allowed will not permit an examination of all the engineering problems affected by recent scientific investigation. It may suffice to give some attention to the following:—

1st. The immediate removal of settled solids from contact with the fresh flowing sewage, so as to avoid a septic liquid, and yet obtain all the benefits due to a septicized sludge.

2nd. The equal distribution of a settled sewage liquid over the surface of a filter bed, avoiding saturation and the consequent exclusion of air.

3rd. The protection of various parts of a biological sewage plant from frost conditions.

FIRST.—The author in reviewing the

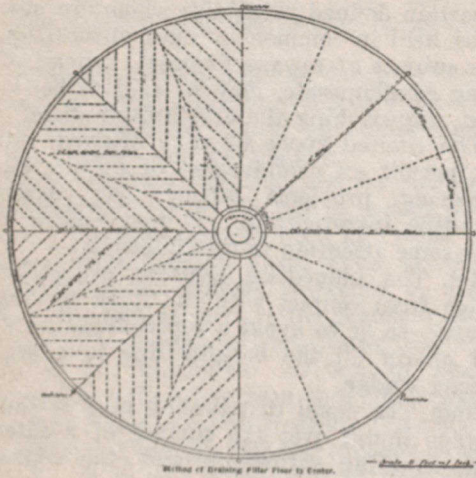


Also, we have heard the statement that oxidation requires sunlight, and that a filter must not be covered in to the exclusion of light, independent of the fact that, six inches below the filter surface, all light must be excluded.

We have said that the Sanitary Engineer has now a surer basis for determining design. The old excuse, "of just having to try something to see how it will work," can no longer be made in case of failure. All the recent research and experimental work, together with collection and classification of practical data, point

Fifth Report of the Royal Commission on Sewage Disposal in the fall of 1908, published in the Canadian Engineer, referred to the now well-known conclusions of the Commission, that the so-called septic tank fell short in accomplishing some of the main claims set up by its promoters. He pointed out that if it is desirable to maintain septic action, then such should only be allowed to take place in an independent tank by sludge storage. This conclusion has found almost general acceptance, with the result that several new designs of sedimentation tanks have been promoted.

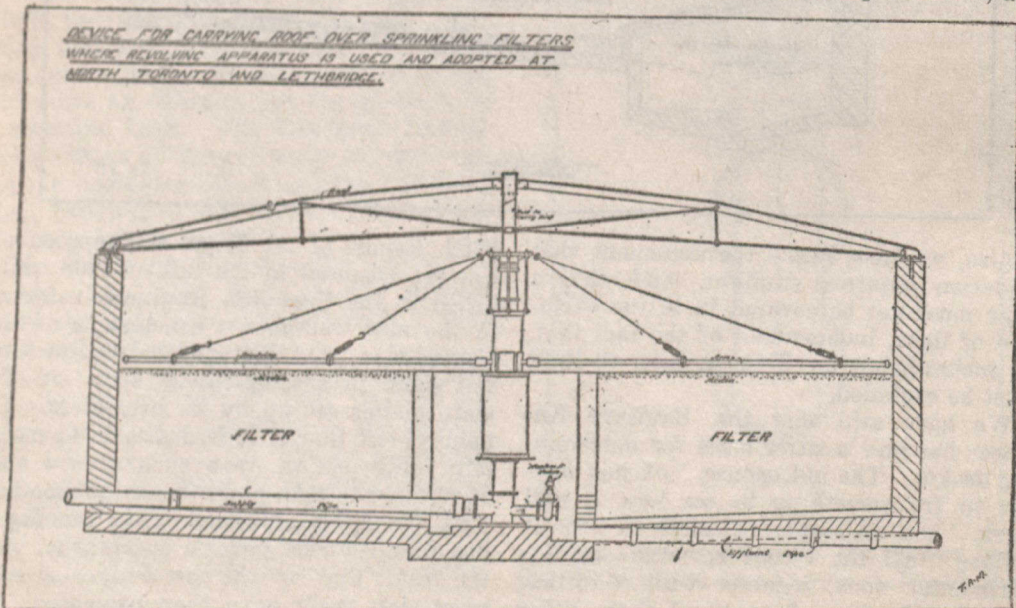




Septic action when confined to the settled sludge provides the following features: (a) A more concentrated form of sludge containing about 80 per cent. of water as against 90 per cent. in the case of fresh, settled sludge. (b) A sludge which, if thoroughly septicized, is practically without odor. (c) A sludge which is reduced by about 25 per cent. by the partial elimination of its organic content by putrefaction. (d) Septic action, if allowed to take place in an enclosed tank, provides control of the gases which are the products of decomposition.

The main objections to the usual form

of septic tank lay in the fact that putrefaction of the settled solids took place in contact with the supernatant liquid. This caused a similar phenomena to that observed in a glass of soda water containing lemon seeds. The gases attach themselves to the seeds, raising them to the surface, the gases escaping, the seeds sinking. So with a septic tank. The liquid flows over an area of putrefying, settled sludge; the evolved gases are constantly attaching themselves to and raising particles of sludge, with a consequent return of much of the already settled solids to the supernatant liquid in the form of fine particles. The history of a septic tank is simply the gradual increase of the amount of suspended solids in the settled liquid effluent. Instead of a maximum removal of suspended solids we obtain a minimum, requiring either a very much extended filter area, or a constant chokage of filters. Further, it is acknowledged that the duty of a biological filter is not to act as a straining, but as an oxidizing machine; and it has been clearly shown that with such filters it is much more difficult to obtain non-putrescibility with septic liquids than with fresh, the products of decomposition being less easily oxidized than the organic compounds usually found in fresh sewage. Two forms of tanks are here described, both constructed in order to obtain the maximum benefits due to septic action, and





at the same time avoiding the above objectionable features. The one is called the "Emscher" Tank, page 20, and the other, on page 21, the "Lethbridge" Tank.

The Emscher tank is the invention of Dr. Imhoff, and was designed by him in connection with the Emscher drainage area in Germany. The tank is based on the Dortmund type; that is, it is circular cone-shaped. The upper portion is used as the sedimentation area, and is separated from the sludge storage area by the aprons as shown. The solids in settling pass down and through the opening at the base of the apron, and the overlap prevents any gases or particles of sludge from entering the sedimentation area. The gases are carried off by vents at the perimeter surface. This form of tank has received a great amount of attention of late on this continent. Rudolph Herring has called favorable attention to it in contributions to the *Engineering News*, of New York, and that journal has further published a very full description, giving efficiency working data collected in Germany. Experimental plants have also been installed in Chicago and elsewhere. The author has no personal experience or knowledge of the tank, but would judge that there is no reason why it should not fulfil the objects for which it is designed. His interest in the tank is accentuated, however, by the fact that, while Dr. Imhoff in Germany has been puzzling out a form of tank for the above-named objects, he has also been engaged in designing a tank for similar objects in Canada.

Last year in designing sewage disposal works for the city of Lethbridge the author, with reference to separation of suspended solids, determined to meet, as far as possible, the following problems:—

(a) The maximum removal of suspended solids.

(b) The immediate separation of the settled solids from contact with the supernatant liquid in the sedimentation area:

(c) The production of septicized sludge and the production of a non-septic settled liquor.

It is considered that these problems are solved in the "Lethbridge" tank.

Referring to the sketch, it will be seen that the tank is of the usual rectangular shape. A sludge apron projects into the tank, overlapping a sludge storage basin. The apron is given a steep grade to allow

of settled solids to slide to the forward base; the forward base is also given a steep grade to allow of solids to gravitate to the sludge storage basin. The apron and forward base are lined with wire reinforced glass for the purpose of reducing friction and ensuring immediate delivery of the settled solids into the sludge basin. The capacity of the sludge basin is made equal to three months' storage of sludge at 80 per cent. of water. The gases given off from the putrefying sludge rise and impinge against the under surface of the apron and follow up the inclined plane, and are drawn off by vent-pipes to the outside of the tank. The overlap of the apron over the forward base makes it impossible for the septicized sludge or its products to come into contact with the supernatant sewage liquid in the sedimentation area.

The essential difference between the "Lethbridge" tank and the "Emscher" lies in the basis of design. The former is designed to suit the rectangular shape, and the latter, the circular.

In adopting the rectangular shape the following factors were taken into consideration:—

It is generally concluded that more efficient sedimentation, even velocity of flow, and avoidance of eddies can be obtained by the rectangular form than by the circular.

Circular tanks have been adopted more generally for the removal of grosser solids and such heavy matters as humus given off from biological filters.

Rectangular tanks are generally less expensive than circular in construction, are more simple in operation, and require less depth of excavation.

Reliable data exists as to the possible efficiencies of rectangular tanks, and it is known that a sufficient proportion of the solids can be removed in order to obviate chokage of the filter media; and, therefore, there does not appear to be any good reason for departing from this particular form of design.

SECOND.—The equal distribution of a sewage liquor over the whole surface of a filter, and at the same time avoid saturation, has presented a somewhat difficult problem to the sanitary engineer.

The contact bed was the first attempted solution. That every particle of the filter media came into contact with the sewage was ensured by simply filling the filter.



This, unfortunately, also ensured the total exclusion of all air, and enabled the Royal Commission to report that collected data proved that a cubic yard of filtering media in which air is constantly present will oxidize twice as much sewage as a cubic yard in a contact bed.

Various designs of distributors to provide a continuous sprinkling of sewage over the filter area have been put on the market, and have given the name of the "sprinkling" or "percolating" filter to such types.

Distributors may be divided into "fixed sprays," "revolving" or "travelling" distributors.

Fixed sprays have been used more generally in America, and revolving or travelling distributors in Great Britain. There is a decided tendency to adopt the latter type in preference to the former. With fixed sprays it is practically impossible to obtain equal rates of distribution. As a rule, only from 80 to 90%, and sometimes less, of the filter area is in operation. Further, fixed sprays are apt to cause an odor nuisance by the liberation of gases.

Clarke, the chemist employed at the Lawrence Experimental Station, Mass., after a recent trip to Great Britain, stated before the Boston Society of Civil Engineers, that he formerly held the opinion that fixed sprays were the common-sense solution, but that he now concluded that revolving or travelling distributors gave greater efficiency per unit of filter area.

It has been felt that moving distributors are more likely to be affected by frost conditions than fixed sprays. However, the cities of Moscow and St. Petersburg have lately adopted these types, and in the Canadian West, Regina, Lethbridge, and Calgary are also adopting them, while Moose Jaw and Swift Current are adopting the fixed Stoddart type. Comparative efficiency data will be collected as soon as possible with reference to frost conditions in this country.

The question of avoiding saturation is one of extreme importance in connection with a sprinkling filter. Filtering material in its voids has two capacities, viz., its water-retaining and air-containing capacity. Water-retaining capacity is obtained by filling a filter with a measured quantity of water to saturation, measuring the quantity run off, the difference representing the

amount retained by adhesion. Air capacity is represented by the measured quantity run off. The finer the filter material, the less will be the air capacity, and the coarser the filter material, the less will be the water-retaining capacity. Filtering material may be so fine that practically no oxidation will take place. On the other hand, the air capacity may be so great that no greater efficiency in oxidation will take place than by spraying the sewage through an equal area of atmosphere.

In a well-constituted biological filter three processes take place, viz., retention, absorption, and oxidation. An equilibrium must be maintained, otherwise immediate difficulties arise. At equilibrium a filter is capable of lasting fourteen to sixteen years without renewal. The choice of filtering material relative to size and character forms one of the most important problems in connection with biological sewage treatment. No fixed rule can be laid down. Everything depends upon the character of the sewage and the efficiency of the primary removal of suspended solids. It may, however, be taken that with a domestic sewage of average strength, representing a per capita water supply of fifty gallons, a well-settled liquor, from which from 60 to 70 per cent. of the solids have been removed, may be treated on percolating filters at the rate of 150 gallons per cubic yard of filter area with material ranging from two to three inches in cube.

THIRD:—The question of frost interference appears to trouble many minds in this country. Well, we have frost, and we have got to have sewage disposal. If it is possible to overheat houses, hotels and railway cars, it may also be possible to spare a little of this superheat to warm up a filter bed. The question is: Does the biological treatment of sewage lend itself to a cold climate? It certainly does, because it occupies less area than any other system. Every part can be easily roofed in, from the detritus chamber to the final humus basin.

Certain modifications in structure are, however, advisable. For instance, on referring to the sketch of the percolating filter, it will be observed that the usual method of draining to the perimeter into an open channel is departed from, and the sub-drainage is taken to the centre of the filter. Also, it will be noted that an improvement has been affected in the design of the cent-



ral dram of the distributor by enlarging it so that a stationary metal standard is carried through to carry an iron structural roof. The latter contrivance reduces the roof cost by 40 per cent.

The best form of covering for the detritus and sedimentation chambers will usually be met by providing reinforced concrete roofing, either arched or beamed, while the filters can be cheaply covered with iron constructional frame work and timber or corrugated iron roofing.

The question of the necessity or otherwise of artificial heat cannot yet be answered, as we have no data in the colder parts of Canada as yet. It may be possible to do without artificial heat when we consider that sewage is usually delivered at about 42 deg. F.

In conclusion, let us remember that any biological system for the treatment of sewage will only do so much and nothing more. By detritus chambers and sedimentation tanks a large proportion of the solids can be retained, and have to be subsequently dealt with. By biological filtra-

tion the settled liquid can be rendered non-putrescible. Do not expect a more clarified effluent from the filter than the influent to the filter. The object of the filter is not to clarify, but to oxidize. A clarified effluent means the retention of the 20 to 30 per cent. of solids not retained by the sedimentation tank and the eventual chokage of the filter. A good filter effluent should show an apparent amount of solids in the form of humus, which is easily settled out.

Beyond all else, let us remember that the effluent is not yet fit to turn into a water source used as a domestic supply. All that has been done is to remove that which will cause an æsthetic nuisance. The pathogenic nuisance yet remains, and the germs of disease particularly associated with sewage can only be eliminated by disinfection or a further effort in the shape of sand filtration.

What has been done is to obtain an effluent which can easily and economically be rendered non-pathogenic.

## THE MEDICAL INSPECTION OF IMMIGRANTS ON SHIPBOARD.

BY J. D. PAGE, M.D.

CHIEF MEDICAL OFFICER, PORT OF QUEBEC, MEDICAL SUPERINTENDENT, QUEBEC IMMIGRATION HOSPITAL

The medical inspection of immigrants must be considered in the present evolution of Canada as a problem of capital importance from a public health point of view. While the municipal medical health officer devotes his attention to the conservation and the improvement of the health of the people by preventive means and by the multiplication of the fit, a more direct and hence a heavier responsibility in the control of the unfit among the new comers rests upon the medical inspectors of immigrants.

For the information of many who are not familiar with the routine of the work and the difficulties at the ports of entry for immigrants, as well as for the sake of discussion, it may be well to give, first, a

summary of what has been accomplished since the enactment of the Immigration Act in 1903, before which the undesirables did not meet any barrier upon reaching our seaports.

It is notable that during the first couple of years of Canadian restrictive laws, 80 to 90 per cent. of detentions and rejections were due to eye troubles, mostly trachoma, among the continental people, who were, at the time, about the only inmates of our detention hospitals. In those days the inspection was performed at Quebec by two physicians only, working alternately with each other in examining all ships.

However, the steamship companies soon learned that it was to their interest to have passengers examined on the side of embar-



kation as to the eyes at least while at the same time we ourselves were beginning to realize that too exclusive attention had been given to the eyes. A third medical inspector and soon after a fourth one were added to the initial staff, and a proper rotation of service arranged; two of the inspectors being detailed in order to inspect steerage passengers ashore, one of these looking specially after the eyes and the other observing the general condition of the individuals.

When you are told that two and three thousand immigrants and occasionally a much larger number are examined in a single day, you will understand that the inspection can be but a cursory one, during which the suspects are put aside and re-examined after the file inspection is finished.

As a first consequence of the more systematic inspection and a gradual training of the medical officers, more and more mental and physical defectives were detained from all races and classes. Another result was the greater care in inspection at the place of embarkation by the transportation companies which felt that they had to keep pace with our progress.

The extension of our work, abroad and at home, is fully described and approved in the annual reports, for the years 1909 and 1910, by Dr. P. H. Bryce, the Chief Medical Officer of the Interior, where it is also remarked that the larger the number of immigrants the less is the relative number rejected, probably, because, at times, the physical capacity of the inspectors is taxed beyond the limits of highest efficiency.

As a certain number of deportations for medical causes, ordered soon after admission, seemed to justify Dr. Bryce's view, two new inspectors were added to the Quebec staff at the beginning of the season just expired, thus, enabling us to have a double set of inspectors of three men each, so, that each set having to attend to every alternate ship, the work becomes much easier and proved in the end to be more effective.

So far as I am informed the deportations after admission at Quebec within the corresponding period of last year, has this season been appreciably reduced, while the fewer general detentions demonstrate that the inspection at European ports has also improved in a marked degree. We may,

now, quite safely say with Dr. Bryce that the approximate maximum of efficient work at the seaports under existing methods of inspection and the requirements of the Act, has been reached.

True as this may be, there will be yet a certain number of mentally or physically diseased persons who will slip through our hands to be detected soon after landing and deported from various parts of the interior. Besides these, some of you have, no doubt, seen many a man or woman who would have been debarred from admission, had our inspectors had the same opportunity as the ship's surgeon to size them up. But, because they are not actually a burden to the State, we can not touch them though it is apparent that if not themselves directly, they will sooner or later, through their progeny, exert a deteriorating influence upon society.

How can we prevent these accidents?

My experience during several years connection with the port of Quebec has convinced me that the best filter to oppose the penetration of the undesirables into the country will be found in the Ships' Surgeons' service so soon as it is organised on some reasonable and systematic basis.

I want no other guarantee of the truth of this conviction than the excellent work done not for the sake of the petty salary they get, but from devotion to their profession, by a few able, tactful and courageous ships' surgeons whom we not infrequently find on the ships.

The difficulties of the selection of what has been called "the building materials of the nation" and the necessity of bringing into action every available factor to attain this end has been forcibly put forth by such an authority as Sir James Barr in his lecture on the "Medicine of the Future" at the last meeting of the Canadian Medical Association when he said: "You have got here a young country, a virgin soil, and you should see that it is peopled by a vigorous and intellectual race. You should shut out all degenerate foreigners as rigidly as you would exclude a mad dog." Then follow statistics on tuberculosis, insanity and mental defectiveness in England and Wales, Scotland and Ireland, where we are naturally looking for our biggest supply of immigration.

"During the last fifty years the insane



population of England and Wales has increased 250 per cent. while the whole population has only increased 81.6 per cent., and in Ireland, with a falling population, the increase has been about 100 per cent. The ratio of the insane to the general population is in England and Wales one in 278, in Ireland one in 158 and in Scotland one in 256. This is not all as there is an even greater number of defectives in the three countries." Speaking of the idiot, the same author states that "there are some 150,000 (estimated) of these defectives in England and Wales and for every defective there are from six to a dozen of his relatives only a shade better than himself. Practically the same holds for insanity."

Here, when we detain one of those defectives, we have from six to a dozen solicitors demanding his release and if they happen to pass us accidentally, even more denunciators.

In as much as ships' surgeons are required to comply with one of our most important regulations, but which so many ignore, with regard to reporting on their certificates every case coming under the law and after due inspection of each such individual, whom they are at leisure to see during the voyage, they should no longer continue to exist on the ships, apparently often merely as a legal requirement imposed upon the steamship companies without due consideration for security of the passengers.

No innovation nor modification of any existing method of inspection on either side of the Atlantic will ever accomplish the equivalent of what the general ship's surgeon is in a position to do if qualified, if he lives up to his obligations.

While we not infrequently come across cases revealing the most shocking ignorance negligence or absence of common sense on the part of some ships' surgeons, I wish to declare most sincerely that, in speaking as I do, I have no intention of reflecting on ships' surgeons as a whole. Their deficiencies seem to me to come mostly from the lack of training for this kind of work and lack of sufficient information by pursers or captains as to their duties. Sometimes a surgeon seeks and secures engagement on a ship for a casual and cheap trip across the big pond and leaves the ship without having realized his responsibilities if things happened to have gone for the better in

the course of the voyage.

During the seven months of navigation on the St. Lawrence, we had last year 96 different doctors on 36 vessels; this year 106 on 44. The small fees of \$35 to \$50 per month assigned to ships' surgeons, explain sufficiently these frequent changes and render quite vain any hope of amelioration of the inspection on the ships so long as this system of remuneration prevails.

On asking one day an important official of a steamship line if his company could not afford to pay decent salaries to their doctors, I was answered that "as business men they did not see why they should, in as much as they always had more applications from doctors than there were positions to fill." This was a reminder that corporations have no souls.

However, believing as I do, for all that we be public servants, as medical officers, we are not mere passive instruments, but must feel it our duty to be rather initiative in inspiring the authorities to adopt, as occasion requires, such measures as will benefit the community at large.

In the present case, it would seem that the first step to take in view of remedying an evil bearing in itself consequences of national importance, should be to persuade the steamship companies to pay their ships' surgeons salaries sufficient to induce men of recognized qualifications to enter the service for a period of at least one year, with a scale of salary increase for a certain number of years as an encouragement to remain with the companies for longer periods.

Italy seems to have been the first country some ten years ago, having the desire to impress upon every ship carrying emigrants, selected medical men for the protection of its citizens, in the person of a Royal Commissioner, belonging to the Medical Corps of the Royal Navy in active service, and, who, besides his sanitary duties, is entrusted with the overseeing of the emigration interests. The Commissioner is paid out of an Emigrant Fund and there is one surgeon for every seven hundred passengers. This policy of Italy has been so satisfactory that it has been adopted since by the Argentine Republic and Portugal.

While it may take some time yet before we can borrow surgeons from a Canadian Navy, and while we have no Immigration Fund at our disposal, I shall conclude in



suggesting, in the meantime, a resort to a means which would not affect the dividends of the shareholders of the shipping companies, by raising the passage rates one or two shillings, if necessary, and, while this trifling increase could be considered as a cheap insurance for the passengers to guarantee effective medical assistance in case of need, the total sum should be amply sufficient to give to a ship's surgeon an initial salary not inferior to \$1,000 a year.

After all, this means would be only a repetition of the procedure adopted by the Conference of Transportation Companies some months ago when the cabin rates were increased by \$2.50 to overcome their first troubles with dock employees at Liverpool.

If this expedient was deemed necessary to protect some material interests, at the time, how much more justifiable would be the imposition of a bagatelle of a couple of shillings in view of the public health.

## BIOLOGICAL PRODUCTS

BY CHAS. H. HIGGINS, D.V.S., F.R.M.S.

PATHOLOGIST, DEPARTMENT OF AGRICULTURE, OTTAWA

The title of my paper confronts us with a large variety of preparations, some of which have secured an enviable reputation in the diagnosis, prevention and treatment of disease; many are undergoing the evolutionary period, a few of which will eventually be discarded, while others have been wholly unable to survive the vicissitudes of either practical or theoretical experimentation.

It is not my purpose to mention individual products and indicate the results, beneficial or otherwise, following their use in the diagnosis, prevention or treatment of diseased conditions. My effort, however, will be directed to the consideration of certain of the more important problems associated with their history and manufacture. The special indications for their use, the methods of application, dosage, and the results obtained therefrom naturally belong to the clinician, although their origin and the technicalities surrounding their preparation are usually the result of detailed laboratory study.

I desire to premise my remarks by the statement that the development of my theme will be from the very broad standpoint of preventive medicine as related to public health problems, and, will in a general way include all biological products, whether the minor details refer to the more restricted acceptance of the term as embracing comparative or human medicine. We cannot separate these products into distinct classes, the one for animals and an-

other for man, as both men and animals have benefited greatly from their preparation, and both are also interdependent for their very existence. The problems in dealing with diseased conditions in either case are based on the same general principles and infectious disorders occurring in both are treated similarly.

Biological products as we now interpret the term are preparations designed for the diagnosis, prevention and treatment of diseased conditions in men and animals caused by specific infectious agents or poisons. They include normal sera, antitoxic sera, antibacterial sera, toxins, attenuated vira and bacterial vaccines.

To enumerate all of the products, which are to-day available would require much more time than is at our command and it is further questionable whether such a course would be of interest to members of this section, all of whom are more or less familiar with the more important of those in common use. We are, however, directly concerned with their evolution, and the desired laboratory requirements for their manufacture and subsequent testing are details of vital importance in the consideration of the broader aspects of their relationship to public health problems.

The development of any new field of science is largely dependant upon the individuality of the workers and the problems with which they are forced to contend. The developments in the preparation of biological products offer no exception to this gen-



eral rule. Leaving out of consideration the introduction of small-pox vaccine by Jenner, their history is inseparable from the advances of bacteriological knowledge, and this knowledge is in turn associated with the improvements made in the grinding of microscopic lenses and the mechanical construction of compound microscopes.

Pollender in 1849 and Davaine in 1850 expressed the opinion that anthrax in animals was closely related to the presence of what they termed sticks and rods in the blood from cases of this disease. It was therefore, but a step to the definite proof by Koch in 1875, when he described the morphology of the organism, that these bodies were the cause of this disease.

Pasteur, experimenting with chicken cholera in 1880, found that the causative organism could be cultivated in a specially prepared chicken broth. Returning to his laboratory after an absence of a few days, he observed that cultures made prior to his departure no longer produced the disease in susceptible fowl. Securing a fresh organism from another outbreak, he found that the fowls previously inoculated did not contract the disease, although susceptible fowl not so inoculated became affected and died in the usual period. He was thus able to demonstrate, largely by accident, that cultures of the bacteria responsible for the ravages caused by this disease could be attenuated and that such attenuated cultures were capable of establishing resistance or immunity in susceptible animals when used in suitable doses. Applying this knowledge to anthrax, he was able, in 1881, to prepare an attenuated virus which conferred immunity against this affection. Anthrax vaccine is now a commonly used biological product although there is danger, and serious losses have been reported following the use of an improperly prepared or impotent product. In connection with these attenuated vira it is of interest to note that investigators have shown that the inoculation with an organism usually harmless, may be capable of conferring a passive immunity against a disease. For example, the *Bacillus pyocyaneus* confers immunity in sheep against anthrax for a limited period.

From this ground work on immunity and the constant increase in our bacteriological knowledge we have witnessed the introduction and extensive use of bacterial filtrates.

Some of these such as tuberculin, introduced by Koch, and mallein, introduced by Von Preusse and Kalning, are well known diagnostic agents and are often improperly called toxines. With the preparation of the bacterial filtrates just mentioned, which we now know to be thermo-stable, further experiments indicated the development of true toxines such as diphtheria and tetanus which are not thermo-stable. The unheated sterile filtrates from these latter organisms were found to be fatal in extremely minute quantities when injected beneath the skin of suitable experimental animals. With the knowledge that recovery from an attack of diphtheria conferred an immunity against a subsequent attack, it was considered that the introduction of the toxine into the body of an animal in non-fatal doses would cause the formation of a neutralizing substance or anti-toxine and that this in turn would be capable of destroying the poisonous effect of the toxine. This theory was sound and Von Behring prepared an anti-toxic serum from dogs and sheep. Aronsohn used goats and later Roux employed horses. While the use of the smaller animals established the general principle of the formation of an anti-toxic substance in the blood of a treated animal, the expense involved in the preparation of this serum would almost prohibit its general application if necessity required the use of the smaller animals. We may, therefore, consider that while Von Behring was the originator of the method we must credit Roux, a pupil of Pasteur, with the practical solution of the means by which an adequate amount of serum could be secured to meet the demands for controlling diphtheria in the human.

Anti-bacterial and anti-toxic sera are prepared by inducing a high degree of immunity in the larger animals against the disease for which the anti-bacterial or anti-toxic sera are desired. The horse being a very tractable animal has proven the most satisfactory and is the one most frequently used. The horse was selected as a large amount of serum is available once the immunizing process has reached a satisfactory point. Great care, however, must be exercised in the selection and subsequent care of the animals required for experiment. Even with the most painstaking care one is not sure of securing a subject, the serum from which after the requisite



treatment will show a satisfactory degree of potency. In some instances as many as an average of six horses are required to obtain one giving a satisfactory serum. When horses are immunized in the preparation of anti-plague serum, even a greater number may be required.

The anti-bacterial and anti-toxic sera are now well and favourably known, having demonstrated their efficiency in preventing and controlling losses from the diseases for which they are prepared.

With the preparation of these sera as with the preparation of any new medicinal agent it was but natural that some means of standardization should be sought. The studies of Ehrlich and the elaboration of his side chain theory explained the chemical reactions involved in the process and he was first to take the necessary steps toward the standardization of anti-diphtheric serum. Rosenau and Anderson in endeavoring to establish a unit on which they could always depend have given us an elaborate process for accomplishing this end. They found that in the dry state serum would retain a certain strength for an almost indefinite period if kept in a vacuum and at a constant temperature. It is their standard unit which is now used for the guidance of manufacturers in the United States and a suitable amount is supplied for the use of each at certain stated periods. Their method of testing requires accurately graduated glassware, a standard toxine which must be made by growing a suitable strain of the diphtheria organism on a special liquid medium, and an adequate supply of guinea-pigs of 250 grammes in weight.

I may here mention that the details which must be observed when manufacturing any of the biological products requiring the use of large cultures are very exacting. We must not only have a pure culture of the organism and a suitable medium, but we must have a strain capable of rapid growth on the surface of a liquid medium. All strains do not possess this feature. For some purposes solid media may be used, but for routine work we must accustom any given organism with which we may be working to the artificial conditions necessary for our particular requirements. The strongest diphtheria toxine producer is not necessarily the most virulent culture, nor are we able to produce a satisfactory mallein or tuberculin from the most

virulent strains of their corresponding organisms. Detailed experiments must be carried out with a large number of strains before we can hope to secure one suitable for the production of the large amounts of chemical bye products required in a limited amount of time.

Many curious phenomena are observed in growing large cultures for any of these purposes. One of the most annoying is the ease with which large cultures of certain bacteria become contaminated while very crude bacteriological technique will suffice in preventing contamination where other organisms are used. In the preparation of tuberculin, contaminations are rare while the opposite is true when dealing with *Bacillus mallei* in the preparation of mallein. Large cultures of diphtheria are also contaminated with organisms which seldom or never appear in other special or routine work where the same incubating chamber is used. These occurrences are difficult to explain. I have considered that the aroma coming from a large culture has an important bearing on this feature. All bacteriologists are familiar with the odour coming from cultures commonly seen in any laboratory and we similarly have distinct characteristic odours given off from cultures of *Bacillus mallei*, *Bacillus diphtheriae*, *Bacillus tuberculosis* and others. So important are these odours that a laboratory worker with a delicate olfactory organ can distinguish a pure from an impure culture. Under such conditions, where we have no diagnostic method of staining I consider the microscope examination a confirmatory procedure and not a primary factor. I am further of the opinion that the aroma has a direct relationship to the efficacy of any of these bacterial products.

Normal sera, or the sera from a normal or untreated animal may be used with more or less benefit in diseased conditions which are but slightly or wholly non-infective to the animal from which they are taken, such as normal horse serum for tuberculosis. Normal bovine serum has been used with a certain degree of success in a few cases of human glanders and is worthy of further trial. Normal sera from other animals such as goats, hogs, dogs, etc., will doubtless be used just as soon as a pioneer therapist has the courage to determine their value in suitable cases and an individual versed in the technique of preparing the serum



join forces. While the occasions for the use of normal sera are naturally somewhat limited, they are deserving of more attention than they have heretofore received.

Killed cultures of bacteria, now known as bacterial vaccines have occupied a very important place among biological products for many years. None of these have received greater attention than that known as Haffkine's prophylactic consisting of the killed cultures of bubonic plague. The bacterial vaccine receiving the most attention at the present time is the anti-typhoid vaccine, the efficacy of which as a prophylactic is well established from the numerous statistics available.

With the further development of bacterial vaccines we have, from a bacteriological standpoint, an extensive field opened before us. These products require great skill in their preparation if they are autogenous in character and properly standardized. In a large measure their success depends, as with other products, upon the individual skill of the producer. All who are trained in the art and science of medicine do not make good clinicians, nor do they become equally proficient in the various specialties. Likewise, all pathologists do not acquire an equal proficiency in the preparation of these vaccines. The results are largely dependant on individual idiosyncrasies and judgment. The combined or polyvalent vaccines appear to be the most promising and will undoubtedly be the ones receiving the most general use. They have the advantage of being prepared from several strains of the same organism and are intended for use in those conditions where the infecting agent is similar to the types from which they are manufactured.

With respect to the necessary facilities required for the preparation of biological products, I will add but a few words. The buildings need not be expensive nor elaborately equipped. They should be spacious, well lighted, well ventilated and provide plenty of room for the laboratory workers and the animals required in the conduct of the work. The details must be considered individually in each instance, according to the work to be undertaken. All laboratory workers have a certain pride in their surroundings and it is to be expected, consider-

ing the risks constantly taken while working with large cultures of the most virulent infectious agents in the preparation of biological products that we should desire to safeguard our own existence in every possible manner. In no line of endeavor is the accidental hazard so great. This feature should be considered of paramount importance in the construction and equipment of buildings for the purpose.

You are aware that a biological product prepared by a certain manufacturer always gives uniform results and is seldom or never followed by after effects of a serious or annoying nature. When this particular product is for any reason, unavailable, and a substitute is used in its stead, less favourable results follow and serious after effects may occur. The repeated occurrence of similar difficulties may be anticipated until it becomes the business of some properly constituted authority to examine all such products manufactured or offered for sale in Canada. The manufacture of the products now used in Canada provide a source of revenue to individuals and companies, and, therefore, the potency is to a very large degree dependent upon the integrity of these individuals or companies. On the whole the integrity displayed has been of a very commendable order, although we are aware that the trade relations of this country were seriously jeopardized a few years ago by an outbreak of foot-and-mouth disease in the country to the south of us which was finally attributed to the use of a contaminated virus in the preparation of small-pox vaccine.

At the present time, the biological products available for use in Canada, with a very few exceptions, are imported, and there are at present no restrictions exercised over the facilities provided for use in connection with their manufacture, nor is any standard established to which they must conform before being offered for sale. As a laboratory worker with an intimate knowledge and an extended experience in the manufacture of certain biological preparations I am convinced that there should be some restrictions placed, not only on their sale, but on the safety of the surroundings and the conditions maintained during their manufacture.



## Library and Laboratory

### BOOK REVIEWS

"Nostrums and Quackery," "A Manual of Practical Hygiene," "Refraction and Visual Acuity," "Sociology Applied to Practical Politics," "Essays on Laboratory Diagnosis for the General Practitioner," "A Pocket Medical Dictionary," "Treatment of Syphilis with Salvarsan," "Herself," "Confidences," "Truths," "Cesare Lombroso."

#### "Nostrums and Quackery"

It should be understood as stated in the preface to "Nostrums and Quackery" that in many cases there is no clear line of demarcation between what are commonly known as "patent medicines" and the "ethical proprietaries." As has been shown time and again, it is not unusual for a nostrum first to be exploited only to the medical profession—as an "ethical proprietary." After a sufficient number of testimonials have been received from unthinking physicians, the promoters of the nostrum advertise their wares direct to the public—as a "patent medicine."

"Nostrums and Quackery" is a compilation of authoritative articles and extracts from various sources, in continuation of the campaign of the American Medical Association against, not only the proprietary evil within its own ranks (we congratulate the American Medical Association) but against the wholly injurious and practically criminal practices of those hordes of fakers and quacks, both medical and lay, who with the swindling, the knowing and sneaking assistance of the larger portion of the so-called reputable press, even medical and religious press, work the confidence game and a legalized gold brick trick on the least protected, most innocent greater portion of the public—the very portion of our fellow citizens whose welfare is vital to the State. While but comparatively few cases are dealt with in "Nostrums and Quackery" these are displayed with special reference to details of fraudulent activity; and it is believed that their perusal will so plainly show such fraud, greed and danger as are inseparable from "patent Medicine" exploitation and quackery, that the reader must perforce be pro-

tected and will help protect others in no small degree from this wide spread evil.

Following the preface the subjects of the book are considered by the authors in three parts: part one dealing with Quackery and taking up Advertising Specialists; Cancer Cures; Consumption Cures; Drug Cures; "Female Weakness" Cures; Mail Order Medical Concerns; Mechanical Fakes; and, Medical Institutes—Part two, Nostrums, taking up Asthma Cures; Baby Killers; Cure-Alls; Cough Medicines; Nostrums and Diabetes; Food Tonics; Habit Forming Nostrums; Hair Dyes, etc.; Head Ache Cures; Kidney Pills and Similar Nostrums; Laxatives, Misbranded Drugs and Foods; Miscellaneous Nostrums; Obesity Cures; Prescription Fakes, Rheumatism Cures; and Sea-sickness Cures—Part three, Miscellaneous, taking up The Confidence of Quacks; the American College of Mechano-Therapy; Moulding Opinion on Food Preservatives; Patent Medicine Makers and the Press; Mrs. Price's Canning Compound; Testimonials; Press Clippings and Nostrum Enterprise.

Such products as Antikamnia, Bromo-Seltzer, Coca-Cola, Waterbury's Metabolized Cod Liver Oil Compound, Rexall Head Ache Cure, Dodd's Kidney Cure, Nyal's (Frederick Stearns and Co's) Compound of Damiania, Resinol and Sal Hepatica are considered in relation to the United States Pure Food and Drugs Act and otherwise.

A foot note on page 408 points out in relation to Waterbury's Metabolized Cod Liver Oil Compound that in the United States the word "metabolized" has been removed from the labels but in Canada and Great Britain where the food and drugs acts do not require the same degree of truthfulness in labelling, the old name is



still retained. The physicians in Canada and Great Britain who connive at or remain ignorant of such a proceeding must be "easy."

Then again on page 410, in speaking of a product sold by Frederick Stearns & Co., of Detroit, Nyal's Compound Extract of Damiana, one of the so-called "Non-Secrets" whose yellow cartons crowd many drug store shelves, it is pointed out that the Government declared this drug misbranded in that it contained a quantity of cocaine and did not show the quantity or proportion of this drug. It was further misbranded in that there was not sufficient damiana to justify the use of the name "Extract of Damiana." It was still further misbranded in that the statements regarding its aphrodisiac power were false, misleading and deceptive; that, as a matter of fact, the product did not contain the aphrodisiac qualities claimed and a fine was therefore imposed.

Again on page 372 some excerpts quoted from *The New Idea*, a monthly journal owned by this same Frederick Stearns and Co., and devoted to advertising Stearns' products to druggists did show "that this firm heedless of the warnings uttered by physicians against the indiscriminate use of head ache remedies, is endeavoring to promote the sale of Shac (Stearns' head ache cure) in a most reckless—we might almost say criminal manner. Shac is put up in wafers and each wafer is stated to contain four grains of Acetanalid. While Shac is sold and "pushed" by Frederick Stearns and Co., Detroit, it is stated on the package to be prepared for Stearns and Carter, (Inc.) 5 Platt St., New York." Frederick Stearns and Co. do a rousing business in proprietary goods through certain Canadian physicians! Do these physicians analyze the proprietary compounds they lazily, carelessly and dangerously prescribe for their patients at the beck and call of "detail men" from such "patent medicine" houses. We fear not. And we further fear that the educational work of the Canadian Public Health Association must lie largely among such physicians, barking "free advertising" for such proprietaries prescribed on faith to a dependent public.

Other baits on the deceptive hook of conscienceless medical commercialism noted by this timely work are Murine, Viava, Mothersill's Seasick Remedy, Purgen and

the "New York Institute of Physician and Surgeons"; the latter stated to have been one of the most heartless and impudent frauds ever put out of business by the United States Government. This Institute had had its advertisements accepted by such periodicals as *The Arena*, at the time owned and edited by B. O. Flower, who is now President of the "National League for Medical Freedom", that league formed mostly of those commercially interested in illness, to oppose the establishment of a federal department of health at Washington. Flower was previously president of a mail order medical concern run by the notorious quack and swindler, R. C. Flower.

Verily, the Ruben Greens are not all of them located outside of the medical profession, nor outside of our state and provincial medical councils, nor outside of our universities; nor are all the heartless, polished sharpers, whose "legalized" or "ethical" advertising, as the case may be, strangles the youth and dependent of our land that they, true vampires, may be repleted.

Learned physicians, wake up! Gentlemen of Allied Professions, Certain Gentlemen of our Medical Press, Reverend Sirs of our Religious Journals, Reverend Sirs and other Sirs of other Learned Journals—take your itching palms from the blood money of the vampire, and your fingers from your noses that you may smell the stench of your financial associate, that you may be driven to seek your bread by the honest sweat of your brows rather than by the blood of the innocents of your land.

Aye. You may be Ruben Greens. You may not know your palms itch and that your fingers are at your noses and that you grin with one eye closed. But Sirs, bestir and remove yourselves, ere the ingratiating oily gloom, in which you now hide the vampire at your side, is wholly dispelled by the penetrating rays of awakening public opinion and your vengeful victims, learning, see and deal with you as you are.—*Nostrums and Quackery. Articles on the nostrum evil and quackery, reprinted from the Journal of the American Medical Association. Part I., Quackery. Part II., Nostrums. Part III., Miscellaneous. Octave, 500 pages, with many illustrations. First Edition. Chicago: Press of the American Medical Association, 503 Dearborn St., \$1.00 net.*



### "Manual of Practical Hygiene"

Dr. Harrington's excellent manual of practical hygiene appears in its fourth edition, revised and enlarged. The great truths of preventive medicine and recent wonderful strides in this branch of practice are here set forth. As it is admitted by the leaders of the medical profession that education for modern practice in any branch is far from complete without a full knowledge of such facts and advances, it might be advisable that the physician with an ambition looking to higher success in his chosen work—but lacking in such knowledge as too many are—procure a copy of this book.—*A Manual of Practical Hygiene. For Students, Physicians and Health Officers. By Charles Harrington, M.D., late Professor of Hygiene in the Medical School of Harvard University. Fourth Edition. Revised and enlarged by Mark W. Richardson, M.D., Secretary to State Board of Health of Massachusetts. Octavo, 850 pages, with 124 engravings and 12 full page plates in colors and monochrome. Cloth. Philadelphia and New York: Lee and Febriger. 1911. \$4.50 net.*

### "Refraction and Visual Acuity"

For the physician upon whose accuracy in testing and correcting the vision of officials in public and other services as railways, etc., the safety of large numbers of people depend, Dr. Kenneth Scott's little book on refraction and visual acuity will be found useful. In it abstruseness has been avoided as well as any reference to those rarer questions unnecessary to a practical knowledge of the subject. Considering refraction the author deals with: Refraction of the Eye and Correction of Errors; Examination of Vision; Objective Examining Tests; Synopsis of Rules in Prescribing Spectacles; Inter-Pupillary Distance; Spectacles and Eye Glasses; The Ordering of Spectacle Frames; Average Price of Glasses; Verification of Glasses; Power of Fixation and Squint or Strabismus; Ophthalmoscope; Color Blindness; Simulated Blindness; The Medical Inspection of the Eyes; The Eyesight of School Children. In Visual Acuity, the discussion is full regarding the vision required in public service. An Appendix containing valuable notes follows, and the work is illustrated

and indexed—"Refraction and Visual Acuity." By Kenneth Scott, M.D., C.M., F.R.C.S., Edin., Consulting Ophthalmic Surgeon to St. Mary's Hospital for Women and Children, London E., etc., with 16 illustrations and one colored plate. New York: Rebman Company, 1123 Broadway, 1911. \$1.75 net.

### "Sociology Applied to Practical Politics"

Dr. Crozier in "Sociology Applied to Practical Politics" has produced an intensely interesting and instructive book. It is a compilation of articles of his which have appeared from time to time in various publications, having a clear and definite bearing on his stated philosophy, arranged in three divisions—"A Challenge to Socialism", "Sociology and Politics" and "Sociology and Political Economy"—each division being made up of a number of chapters.

In the first division Dr. Crozier considers The Street Corner Men, Social Justice, The Fabians and Parliamentarians, and, Karl Marx; the indictment of socialism here being powerful.

The next division begins with a condemnation of Benjamin Kidd's Twofold Scheme of Western Civilization, takes up Mr. Wells as a Socialist and, after presenting a Short Sociological Symposium—execrating "that most deadly, hopeless and even damnable doctrine of laissez-faire, which all political parties alike, hypnotized into it by the teachings of Rausseau and Adam Smith, have openly nursed and encouraged"—treats of Race and Creed, and Race Degeneration.

Free Trade or Protection for England is considered in the third and closing division with How to Run a Free Trade Nation, The Condition of England Question, Free Trade Protection and Preference, Professor Marshall's "Memorandum of Fiscal Policy", The English Banking System, and English and American Banking Contrasted.

Dr. Crozier—a Canadian and a graduate in Medicine of the University of Toronto and Honorary Doctor of Laws—is undoubtedly one of the most attractive and instructive of living writers; original, independent and thorough.

Dr. Crozier's dedication of the present book is interesting: "To my friend and fellow countryman, Sir Gilbert Parker, Canada's Premier novelist and one of the most



prominent exponents of her interests in the imperial parliament.—“*Sociology Applied to Practical Politics*”. By John Beattie Crozier, author of “*Civilization and Progress*”, “*History of Intellectual Development*”. Longmans Greene and Co., 39 Paternoster Row, London; New York, Bombay and Calcutta. 1911. 9/ net.

“**Essays on Laboratory Diagnosis for the General Practitioner.**”

Dr. Harrower has dealt with his subject, “*Laboratory Diagnosis for the General Practitioner*” very cleverly in the form of essays, combined in a hand book of 291 pages. These essays are entitled, “*The Laboratory as a Means of Promoting Professional Proficiency*,” “*The Importance of Laboratory Methods*,” “*Success in the Treatment of Chronic Disease*,” “*An Important Element of Success in the Treatment of Chronic Disease*,” “*Mysticism and Medicine*,” “*The Advantages of the Urine Examination*,” “*Prophylactic Laboratory Work*,” “*Routine Urine Examination*,” “*A New Instrument for the Estimation of the Urinary Acidity*,” “*Study of the Urinary Acidity and Its Relations*,” “*Acidemia and Autointoxication*,” “*Acidemia: Systemic Hypo-Alkalinity*,” “*The Relations and Clinical Significance of the Urinary Acidity*,” “*The Urinary Ammonia in Routine Work*,” “*The Collection of the Urinary Specimen*,” “*Low Total Solids: Its Treatment*,” “*What the Urine Report Means*,” “*The Therapeutic Indications of the Urinalysis*,” “*Laboratory Help in Tuberculosis*,” “*The Urine in Tuberculosis*,” “*Conclusive Researches in Metabolism*,” “*Indican from the Standpoint of the General Practitioner*,” “*Indicanuria and Enteroptosis*,” “*The Value of the Urinalysis in Dermatology*,” “*The Life Insurance ‘Urine Examination,’ a Farce*,” “*Metabolism and Mouth-Disease*,” “*The Importance of the Clinical Laboratory in Surgery*,” “*The Twenty-Five Dollar Office Laboratory*.” Wm. Francis Waugh, A.M., M.D., Dean and Professor of Therapeutics, Bennett Medical College, Chicago—Medical Department Loyola University — Editor *American Journal of Clinical Medicine*,” etc., writes the introduction.

The book is stimulating and suggestive, containing practical truths leading to more effective medical work.—*Essays on Labora-*

*tory Diagnosis for the General Practitioner.* By Henry R. Harrower, M.D., Professor of Clinical Diagnosis, Bennett Medical College (Medical Department Loyola University); Editor, “*The American Journal of Physiologic Therapeutics*”; Member, American Medical Association, American Association for Medical Research, Tri-State Medical Society, etc., etc. Chicago: New Medicine Publishing Co., \$2.00 net.

“**A Pocket Medical Dictionary.**”

The sixth revised and enlarged edition of Dr. George M. Gould’s “*Pocket Medical Dictionary*,” brought fully up to date, contains 34,000 words. It is clearly printed on fine paper and bound in flexible leather and is the most useful little work of the kind we have seen. The dictionary proper is followed by Physicians’ Dose Table giving the doses of official and unofficial drugs in both the English and Metric systems, and a Veterinary Dose Table. A list of symbols and abbreviations, precedes the work.—*A Pocket Medical Dictionary. Giving the pronunciation and definition of the principal words used in medicine and the collateral sciences, including very complete tables of the arteries, muscles, nerves, bacteria, bacilli, micrococci, spirilla and thermometric scales and a new dose list of drugs and their preparations in both the English and Metric Systems of weights and measures.* Geo. M. Gould, A.M., M.D., author of “*The Illustrated Medical Dictionary*,” “*The Practitioners’ Dictionary*” and “*The Students’ Medical Dictionary*.” The 6th edition, revised and enlarged, 34,000 words. Philadelphia: P. Blakiston’s, Son and Company. 1002 Walnut St. \$1.00 net.

“**Treatment of Syphilis with Salvarsan.**”

Professor Ehrlich’s foreword to the only authorized translation, by Dr. A. L. Wolbarst of New York, of Dr. Wilhelm Wechselsmann’s “*The Treatment of Syphilis with Salvarsan*,” emphasizes the eminent fitness of Dr. Wechselsmann for the writing of such a book; and concedes to him the correct explanation of the causation of local recurrence after treatment with Salvarsan, the credit for having satisfactorily shown that Salvarsan has no neurotropic effect—that syphilitic affections of the optic nerve and retinal atrophies may be treated



without causing injury—and the credit for the method of application through neutral suspension.

Wechselmann bases his discussion of Syphilis and Salvarsan on the personal study of more than 1,400 cases so treated, presenting his conclusions in a most interesting and instructive manner. After considering the history of Salvarsan, Hata's experiments and the application of chemical preparations derived from physiological experimentation to human pathology, Wechselmann takes up the two methods of chemo-therapeutic treatments, the effect on the Wassermann Reaction, complication, contra indications, methods of application and all else of importance bearing upon the exhibition of Ehrlich's magnificent discovery.

In the appendix Dr. Wolbarst describes the Technique and Methods of Injection of Salvarsan, the Spirochete Pallida and Serum Diagnosis of Syphilis According to Wasserman.

The book is high-class in every respect, illustrated in colored plates and fully indexed.—*The Treatment of Syphilis with Salvarsan. By Sanitätsrat Dr. Wilhelm Wechselmann of Berlin, Medical Director of the Skin and Venereal Disease Section, Rudolph Virchow Hospital, Berlin. With an introduction by Professor Dr. Paul Ehrlich of Frankfurt-on-Main, Director of the Royal Institute for Experimental Therapeutics, Frankfurt. Only authorized translation.. By A. L. Wolbarst, M.D., of New York, Consulting Genitourinary Surgeon, Central Islip State Hospital, Visiting Genitourinary Surgeon, People's Hospital; Professor of Genitourinary Diseases, New York School of Clinical Medicine, etc. Revised Edition, with appendix bringing this literature up to date.. With 19 textual figures and 16 colored illustrations, New York: Rebman Company, 1123 Broadway. \$5.00.*

#### “Herself.”

Dr. Edith B. Lowry writes “Herself”, with the hope that the plain facts therein set forth will aid some women to have healthier and happier lives and healthier and happier babies. In twenty-five chapters, and in language free from technicalities but at the same time adequate and sensible, the author discusses, among other things, anatomy, physiology and diseases

of the female organs; menstruation; puberty, menopause; constipation; hemorrhoids; the black plagues; fake medical advice; the marriage relation; embryology; abortions; maternal impressions; heredity; childless homes and real homes; prevention of pregnancy; some of the causes of divorce; the need of early instruction of girls; why girls go astray; self abuse; effects of immoral life; white slavery; women in business. The book is illustrated and indexed and supplies information necessary to the young woman in her later teens or to the young married woman.—*Herself. Talks with Women Concerning Themselves. By E. B. Lowry, M.D., 221 pages. Illustrated and Indexed. For Sale by all booksellers or supplied by the publishers. Chicago: Forbes and Company, 443 S. Dearborn St. \$1.00.*

#### “Confidences.”

A book explaining the origin and development of life in language intelligible to young girls. The author has very delicately and adequately treated this important subject. The future health and happiness of every girl demands that she receive when approaching adolescence an intelligent presentation of the vital life processes, and this book will be an invaluable aid to parents and teachers in attaining that object.—*Confidences. Talks with a Young Girl Concerning Herself. By Edith B. Lowry, M.D. Neatly bound in cloth. 16 mo. For sale by all booksellers or supplied by the publishers. Chicago: Forbes and Co., 443 S. Dearborn St. Price 50c net; by mail, 55c.*

#### “Truths.”

Browning says: “Ignorance is not innocence, but sin.” Dr. Lowry helps to eradicate such sin in “Truth.”

A book containing the simple truths of life development and sex which should be given to every boy approaching manhood, because adequately and delicately presenting the subject in intelligible language.

Parents, teachers and physicians will find it most helpful.—*Truths. Talks with a Boy Concerning Himself. By E. B. Lowry, M.D. Neatly bound in cloth. 16mo. For sale by all booksellers or supplied by the publishers. Chicago: Forbes and Co., 443 S. Dearborn St. Price 50c net; by mail 55c.*



### "Cesare Lombroso."

Dr. Hans Kurella's biography of Cesare Lombroso, as translated by Dr. M. Eden Paul of New York, is most interesting. Dr. Kurella presents both the man and his theories in such a way as to aid the physician reader in broadening his examination of his patients' degenerative symptoms, as well as widening his views of life.

Lombroso believed our criminal laws were based on a wrong view. He proved that criminal instincts were either inherited, as the form and atavistic signs present

in their subjects clearly showed, or were due to the educative and controlling forces that were pressed into their lives. Lombroso was the discoverer of the cause of the disease pellagra and the most advanced Italian writer from the physician's standpoint in criminal diseases.—*Cesare Lombroso. A Modern Man of Science. By Hans Kurella, M.D., Author of a Natural History of the Criminal, etc. Translated from the German by M. Eden Paul, M.D., New York: Rebman Company, 1123 Broadway. \$1.50.*

## CURRENT PERIODICAL COMMENT AND WORKING NOTES

In addition to contributions and editorials noteworthy from a public health standpoint in periodicals quoted *infra* for this month:—*Journal of the Royal Institute of Public Health* (Vol. XIX., No. 12, received) contains "Address to the Section of Child Study," by Sir James Barr; "The Science of Eugenics from the Point of View of Evolution," by James Alexander Lindsay, M.D., F.R.C.P.; "Social Work in Relation to Bodily Health," by George Fletcher; "Diseases Communicable from Animal to Man," by J. F. Craig, M.A., M.R.C.V.S.

*Journal of the Royal Army Medical Corps* (Vol. XVII., No. 6, received), contains "Comparison Between Syphilis Relapses in Mercurial and Salvarsan Treatment Retrospectively," by Major R. W. L. Harrison, R.A.M.C.

*Journal of the Royal Sanitary Institute* (Vol. XXXII., No. 12, received), contains "The Influence of Building Regulations on Architecture," by H. D. Searles-Wood, F.R.I.B.A.; "The Artificial Lighting of Hospitals," by John Darch.

*The American Journal of Clinical Medicine* (Vol. XVIII., No. 12, received), contains "Medical Reforms and Mexican Troubles," by Robert Gray, M.D.

*Journal of the Outdoor Life* (Vol. VIII., No. 12, received), contains "Outdoor Living at Home," by Arthur T. Laird, M.D.; "Conservatism and Tuberculosis Work," by William Charles White, M.D.

*The Fruit Magazine, Scientific Farmer and Canadian Citizen* (Vol. IV., No. 3, received), contains "Patriotism," by Maxwell Smith; "Physical Development of Childhood," by Alice Ravenhill.

*The Canadian Practitioner and Review* (Vol. XXXVI., No. 12, received), contains "A Case of Acromegaly," by Graham Chambers, M.D.

*The Canadian Medical Association Journal* (Vol. 1, No. 12, received), contains "Sanitary Milk," by T. P. Shaw; "An Experimental Study of the Phagocytic Immunity Produced by Tuberculin," by John C. Meakins, M.D.; an editorial on "Genital Tuberculosis".

*Le Journal de Medecine et de Chirurgie* (VIe Annee, No. 12, received), contains "La Cystoscopie—Ses Avantages—Sa Necessite," Etude Clinique, par le Dr. Eugene Saint-Jacques.

*Merck's Archives* contains "The Treatment of the Morphine Habit," by C. W. R. Von Radesky, M.D., Ph.D.

*The American Journal of Physiological Therapeutics* (Vol. 2, No. 4, received), contains "The Uses and Value of Ozone," by Henry R. Harrower, M.D.

*The Western Municipal News* (Vol. VI., No. 12, received), contains "Good Roads as they Effect Villages and Small Towns," by H. S. Carpenter.

*The Medical Officer* (Vol. VI., No. 24, received), contains editorial "Lunacy and Public Health"; "Clothing of School Children in Relation to Physique and Physical Exercise," by Alice M. Burn, M.B.

*The Canadian Engineer* (Vol. 21, No. 24, received), contains editorial, "Engineering Training; (Vol. 21, No. 26, received), contains editorial, "Problems of the Great Lakes."

*The Sanitary Record* (Vol. XLVII., No. 1151, received) contains "Food and Health Problems" by James Scott.

*The Medical Council* (Vol. No. 12, received) contains editorial, "Infantile Paralysis"; "Use of Arsenic in the Treatment of Syphilis" by Henry W. Cattell, A.M., M.D.; "A Brief Study of the Immune Sera" (Part IV.); "Pellagra" by Adelaide W. Peckham, M.D.

*The Canadian Journal of Medicine and Surgery* (Vol. XXXI., No. 1, received) contains "The Out-Patient Clinic, Its Aims and Possibilities" by C. N. B. Camac, M.D., of New York City.

*The Indian Medical Gazette* (Vol. XLVI., No. 11, received) contains "The Andamans—The Prevalence of Malaria and its Adverse Effect on the Health of the Convicts" by J. M. Wooley; editorials, "A Fund for Medical Research in India," "The Suppression of Plague and Malaria in India."



### Lay Teachers of Health.

An editorial in *The Dietetic and Hygienic Gazette*, December, treats of the men who in days gone by preached the gospel of health. And these it may be noted, according to the writer, were not members of the medical profession but laymen; Lord Bacon, Swift, Johnson, Addison, Franklin and others embodied much of direct health teaching in their works. Up to comparatively recent times, up to the beginning of the year 1800, at any rate, medical men paid scant attention to preventive medicine, but busied themselves wholly with curative treatment. Thus in a time when medical theories were narrow and contradictory it is little wonder that physicians should have been poor teachers and that the laymen should have loomed so lustroously in comparison. Medicine being now established on a basis of physiologic truth, there can be comparatively slight deviation in theory among physicians, and the laws of hygiene can be best set forth by those who have reviewed the whole field of knowledge of the human body in health and disease. Therefore we may congratulate ourselves that to-day the medical teacher of hygiene is at least of as much worth as was an able literary man and general observer of human affairs of two centuries ago, and we should be thankful that the province of agitation of the fantastic and the bizarre in health teaching has been relegated to the laity.

### The Century of the Child

Whatever else medical science has accomplished during the last few years, says *The Chicago Journal*, it has achieved wonderfully on behalf of the child. It has closed the doors of death to thousands who previously would have been sacrificed. It has modified diseases heretofore dreaded for their fatality. Others have been almost eliminated.

Diphtheria, that dread of our parents, has been robbed of its terrors. The death rate of spinal meningitis has been cut in half. More definite knowledge and improved hy-

gienic conditions have limited contagion and reduced the death rate in all the more familiar diseases of childhood. They have educated mothers, and let light and air and sunshine into the gloom of dark and insanitary tenements.

More than all, there has been awakened a widespread public sentiment that gives promise of even greater achievement. The people have been taught that infant mortality, in the degree to which it has existed in the past, is a crime. Parents have a more adequate conception of their responsibility, and co-operate more effectively with the physician and neighborhood visitor.

In spite of the most diligent research, the germ of infantile paralysis still eludes the scientist. But progress is being made. The problem eventually will be solved. It is not too much to hope that before another decade has passed this scourge also will be eradicated.

Perhaps in epochs to come, the twentieth century will be remembered as the period of the salvation of the child.

### The Monthly Journal of the Royal Institute of Public Health.

Following the plan adopted by *The Public Health Journal*, *State Medicine and Sanitary Review*, the Council of the Royal Institute of Public Health, England, have decided to alter the character of their monthly journal from this month, January, with the object of meeting the necessity of those engaged in public health work for the systematic condensation of the results obtained in the various branches of bacteriology, protozoology and hygiene.

The Council of the Royal Institute of Public Health, England, are therefore at one with the Executive of the Canadian Public Health Association in the opinion that such a provision is necessary in view of the ever-increasing number of original researches in the domain of State Medicine. The new designation of the journal of the Royal Institute of Public Health, England, will be *The Journal of State Medicine*.





## Open Mail

To the Editor, *The Public Health Journal, State Medicine and Sanitary Review*:

### A Section of Medical Inspection of Schools.

Sir,—I would like to suggest the desirability of placing Medical Inspection of Schools under a section in the Canadian Public Health Association by itself. It appears to me the importance of this work and the wide field of labor just opening out along this line in Canada, should entitle it to the importance of a separate section. Interest is being aroused in every city and town in the good results following our work, and such an action by the Canadian Public Health Association would strengthen the hands of the men and women engaged in it.

W. E. STRUTHERS.

According to the constitution of the Canadian Public Health Association application must be made to the Executive Committee through the General Secretary (Major Lorne Dunn, P.A.M.C., Ottawa), by the one desiring to form a section, outlining its aims and objects and enclosing the names, to the number of at least ten, of those members desiring to co-operate, or, the names and addresses and fees of those desiring membership in order to co-operate in the proposed section.—*Ed.*

### Some Useful Books.

Sir,—An editorial hint in your next issue giving names of latest and best books on Hygiene, Rural and City Sanitation, and School Sanitation, would, I think, be appreciated by many of your subscribers who are anxious to keep abreast of the times on these subjects. \* \* \* \*

D. McLAUGHLAN.

Following Dr. D. McLaughlan's suggestion, we would mention the following recent books, obtainable from the publishers or from booksellers: "*A Text Book*

*on Public Health*," by John Glaister, M.D., D.P.H., E. and S. Livingstone, Publishers, Edinburgh, reviewed February, 1911, on page 93; "*Health Hints*," by Edward R. Pritchard, Secretary, Chicago Department of Health, Rielley & Britton Co., Publishers, Chicago—reviewed July, 1911, on page 326; "*Plumbing and Household Sanitation*," by J. Pickering Putnam, Member of the Boston Society of Architects and American Institute of Architects—reviewed July, 1911, page 328. "*Hygiene for Nurses*," by Herbert W. G. McLeod, B.Sc., D.M.S., etc., Smith Elder & Co., Publishers, London, England—reviewed, July 1911, page 375; "*Rural Hygiene*," by Henry N. Ogden, C.E., The Macmillan Co., Publishers, New York—reviewed August 1911, page 376; "*How to be Healthy*," by J. Halpenney, M.A., M.D., and Lilian B. Ireland, authorized for use in the schools of Manitoba, The Educational Book Co., Limited, Publishers, Toronto—reviewed October, 1911, page 479; "*The Principles of Hygiene*," by D. H. Bergey, M.D., W. B. Saunders Company, Publishers, Philadelphia—reviewed October, 1911, page 480; "*School Planning at Home and Abroad*," a resume of English Continental and American Practice, by William H. Webb, B.A., L.R.C.I., The Sanitary Publishing Co., Limited, Publishers, London, England—reviewed November, 1911, page 523; "*Hygiene and Public Health*," by Sir Arthur Whitledge, K.C.B., M.D., etc., and Sir George Newman, M.D., D.P.H., etc., Cassell & Co., Publishers, Toronto—reviewed November, 1911, page 524; "*Architectural Hygiene*," sanitary science applied to buildings, by Banister F. Fletcher, F.R.I.B.A., etc., and H. Philips Fletcher, M.R.I.B.A., etc., Whittaker & Co., Publishers, London, England—reviewed, November, 1911, page 527. "*Rural Hygiene*," by Isaac Williams Brewer, M.D., J. B. Lippincott Co., Montreal, Philadelphia and London—for February review.—*Ed.*



## Meetings and Reports

Material for this department to appear in any month should be transmitted before the 25th of the preceding month.—Ed.

### DOMESTIC

#### ADVANCE NOTICES.

*Canadian Public Health Association 1912 Congress*, Toronto, under the patronage of Field Marshall, His Royal Highness, the Governor-General; Charles J. C. O. Hastings, M.D., M.H.O., City Hall, Chairman, and Duncan Anderson, M.D., 28 Wellesley St., Secretary, Committee on Local Arrangements; particulars later; Major Lorne Drum, M.D., D.P.H., P.A.M.C., General Secretary, Ottawa.

*Child Welfare Exhibition*, Montreal, October, 1912. The objects are: I. To present evidence of all the various activities — educational, religious, charitable, philanthropic, and medical making for the improvement of conditions of child life, so that their existence and special work may be advertised, their inter-relationship may be recognized and the public be further stimulated to support and advance their endeavors; II. To show the deficiencies in public and private organizations and to suggest remedies for the same, drawn from the experience of other communities, in this way supplementing and extending the work already being accomplished; III. To correlate the endeavors of many existing associations, developing thereby a body of concerted opinion sufficiently strong and influential to bring about the needed improvements in the surroundings and upbringing of the city child. It is proposed that the Exhibition shall have the following departments: 1. The Health of the Child; 2. The Home of the Child; 3. The Education of the Child; 4. The Moral and Religious Life of the Child; 5. The Recreation of the Child; 6. City Environment and the Child; 7. The Law and the Child; 8. The Social Life of the Child; 9. The Care of the Abnormal Child; 10. Philanthropy and the Child. The Executive Secretaries are: W. H. Atherton, Ph.D., 62 Beaver Hall Hill; Tel., Up 1330; and Rev. J. O. Maurice, L.L.L., 35 Ontario, East; Tel., East 925.

*The Canadian Forestry Association*, February, 6, 7 and 8, 1912. Annual meeting, Railway Committee Room, Parliament Buildings, Ottawa; James Lawler, Secretary, Canadian Building.

*Canadian Medical Association*, Annual Meeting, 1912, Edmonton, Alta. Particulars later. E. W. Archibald, M.D., General Secretary, Montreal.

*The Twelfth Annual Convention of the Canadian Association for the Prevention of Tuberculosis* will be held in Toronto, May 20 and 21, 1912. George D. Porter, M.B., Secretary.

*Ontario Medical Association*, 1912, Toronto, May 21, 22 and 23. Dr. F. Arnold Clarkson, Secretary, Toronto.

**\*Proceedings at the General Sessions and Sections of the First Annual Convention of the Canadian Public Health Association, held in McGill University, Montreal, December 13th to 15th, 1911.**

The many excellent papers read and discussed last month at the general and sectional meetings of the 1911 Congress of the C. P. H. A. will be printed in full text in *The Journal* throughout the year.

The attendance at the Congress was large and representative, those present being foremost Canadian authorities on public health matters with many authorities from abroad. Enthusiastic interest marked the proceedings, and much good work was accomplished, not only in the interchange of ideas in relation to sanitary problems of topical interest, but also in giving a united voice to many suggestions looking towards needed reforms in the form of mo-

tions and recommendations submitted to the Association at its final business meeting.

Among the proceedings at the first general session, Wednesday the thirteenth, the following excellent papers were presented and discussed:

“Military Aspects of Sanitation,” by Colonel G. Carleton Jones, M.D., M.R.C.S., Director General Medical Services, Militia Department, Ottawa. Colonel Jones called attention to the educative effect of the training imparted to the members of the rural corps at the annual camps in the methods by which garbage, foul water, and dejecta were disposed of, and pure water obtained in accordance with modern sanitary ideas; and Dr. Bryce in the discussion following spoke of the remarkable results obtained by the military sanitarians of the United States Army when they took



over the sanitary charge of Havana after the Spanish-American war — remarking that he had just returned from a visit to that city and could therefore speak with authority—

“The Medical Inspection and Care of Immigrants on Shipboard,” by Dr. Pagé, of the Immigration Department at Quebec, advocating the institution of a regular service of ships’ surgeons—

Dr. Bryce’s paper on the “Conservation of Food by Cold,” followed by an interesting discussion, in which Sir James Grant, Mr. P. B. Tustin, and others, took part—

“Cheese Factory Waters,” by Professor Connell, Queen’s University, Kingston. This paper was illustrated by charts, and laid before the meeting the results of a long series of investigations into the purity of the various well and other waters used in our cheese factories. In the discussion which followed Dr. Connell stated that he intended to pursue these researches with a view to ascertaining the effect of known impure waters on the cheese products, from a health standpoint—

Dr. M. M. Seymour’s paper. This illuminating account of the methods by which tuberculosis was being combatted in the Province of Saskatchewan, raised a most instructive discussion in which, with others, Dr. MacDonald (Cape Breton), and Dr. Hastings took part—

Dr. William Oldright’s paper on “Hygiene of Canadian Waterways”—

“Infantile Mortality,” by Dr. Helen MacMurchy, Toronto, and—

“Factors in the Spread of Acute Intestinal Infections,” by Dr. H. W. Hill, of Minneapolis.

In the papers at the second general session, the “Symposium on Town Planning and Housing,” Thursday, the fourteenth, stress was laid upon the fact that adequate Canadian statutory provision was yet lacking to deal with the momentous problems facing citizens in urban municipalities:

Dr. Chas. A. Hodgetts, Medical Advisor of the Commission on Conservation, Ottawa, opened the symposium with a general paper on the subject. He stated, one must acknowledge that we are behind the times and Canadians have made and continue to make serious mistakes in the laying out of cities and towns, and in not planning for their development. Acknowl-

edging this fact, it was our duty as citizens to learn by the mistakes of the older countries of Europe. The lumber town of forty years ago is still a lumber town, overgrown; it has not risen to a realization of its importance or the dignity of its position as the Federal Capital of a great and growing nation. Nor does the great seaport of Canada, its commercial capital, present any outstanding features to lead one to eulogize the foresight of its wealthy and intelligent citizenship, or the system adopted of converting a once fine family residence into an apartment house or tenements of the worst type. All the new and older cities are from the town-planning, and housing standpoint—monstrosities. He noted the mistake, the method, of warehousing humanity in apartment houses of all grades. Posterity would come to curse the day when they were permitted to dwell in such places. To attempt to work the remodelling of our cities and the planning for the future without first securing proper legislation would, in his opinion, be misspent time. We would also require more definite and exact legislation on unsanitary housing and unsanitary areas. He concluded by enumerating some of the advantages to be derived from town-planning, among them being: improvement in general health and morals, reduction of death rate, provision of cheaper and more healthy homes, suitably located open spaces and absolute prevention of slums, with all their attendant evils—

Dr. J. E. Laberge, Medical Superintendent of the Department of Infectious Diseases of the City of Montreal, followed with a paper in which he touched on the question mainly from the hygienic side, laying stress on the fact that slums are the hot-beds of disease. Until recently this important matter received little consideration from the public authorities, due to the ignorance of the public in matters of hygiene. Have wide boulevards in the places to which you transfer the people from the crowded slums. Let these outside surroundings be places where the people can obtain air, light, good and abundant supply of water, and good housing. This work should not be left to outside enterprise, but should be taken up by the municipal authorities, to educate the citizens to see that their city becomes large, beautiful, healthful sound and prosperous—



Dr. Chas. J. C. O. Hastings, City Medical Officer of Health, Toronto, in a paper on "Housing Problems," described the unsanitary conditions existing in the slum districts of New York, Milwaukee and Toronto. Toronto had its slums, the same as other cities, and it was no use for people to try to disguise the fact; it must wake up like other cities, to the prevailing conditions and not live in a "fool's paradise." In Toronto, he said, there were 919 families living under distinctly unsanitary conditions, some only in one room tenements or in cellars. Slums were veritable hot-beds of vice and crime as they were of disease, and cities must see to it that they were eradicated. Tenement houses he declared to be nothing more nor less than mere packing houses—human packing-houses; and he concluded by urging the securing of transportation to districts on the outside of cities, where people could be properly housed in individual homes, in beautiful garden cities—

Mr. Rickson A. Outhet, architect, Montreal, read a paper on "Municipal Powers in Dealing with Town-Planning Schemes," which mainly dealt with the town-planning in operation in England, and how these schemes could be applied to Canada—

Mr. W. D. Lighthall, K.C., Westmount, speaking on the subject of "Re-housing in Canada," dwelt upon the "jerry-built" tenement houses, one-room tenements and even cellar abodes prevalent in Canadian cities, particularly in Montreal. Not far from the City Hall, a physician told him, the previous night, that he had found sixteen foreigners sleeping in two rooms, only suitable for one man in each, and with windows tightly sealed. He urged the planning of new districts at once to relieve the slum districts. He knew of only two re-housing instances in Canada, those of Mr. H. B. Ames, M.P., and Lieut.-Col. Carson, both in Montreal, and they have paid well. He thought that the model suburb and model tenement would have to be combined in one company. This was done successfully in New York—

Mr. Percy E. Nobbs, Professor of Architecture in McGill University, followed with a paper in which the statistical side of the question was taken up, and dealt with in a most instructive and interesting manner—

A paper followed, by Dr. Roberts, Med-

ical Officer of Health, Hamilton, on "Unsanitary Areas—"

The closing paper of the symposium was read by Mr. Colborne Meredith, Architect, Ottawa, who dealt with the subject from an architect's point of view, clearly defining the objects which have to be borne in mind in preparing any town-planning scheme.

The "Symposium on Biological Sewage Disposal," on the fifteenth, Friday, third general session, was opened by P. H. Bryce, Chief Medical Officer, Department of the Interior, Ottawa, who, speaking on "Physical and Economic Aspects of Biological Sewage Disposal Plants," reviewed first the history of the development of methods and knowledge on this subject. The preliminary removal of suspended solid matters, the fine solid matter in pseudo-solution or solution, and the remaining 25 per cent. of organic matter together with the various means, mechanical, chemical, and otherwise of accomplishing the destruction of all living organic matter, were all dealt with fully and in an interesting fashion—

Willis Chipman, C.E., Toronto, told of the progress in Canada of biological methods of sewage disposal during the last twenty years. Berlin was the first municipality to adopt sewage purification works, after several government institutions in Canada had made experiments with various methods. Many other places adopted various methods, but the first septic tank was tried in 1901, although the septic tank boom is now beginning to subside. He prophesied that at the end of the decade now dawning every municipality in Canada would have a sewage purification works—

Speaking on engineering problems involved in methods of sewage disposal, T. Aird Murray, C.E., of Toronto, gave an interesting account of works designed by himself for this purpose at Lethbridge, with the view of securing the maximum removal of suspended solids. In concluding, he stated: Effluent is not yet fit to turn into a water source used as a domestic supply. All that has been done is to remove that which will cause aesthetic nuisance. The pathogenic nuisance yet remains, and the germs of disease particularly associated with sewage can only be eliminated by disinfection or a further effort in the shape of sand filtration—

Dr. G. G. Nasmith of Toronto, on Chemi-



cal Principles Involved in Sewage Disposal, said that the oxidation processes practically involved the chemical process that organic matter acted on by oxygen became inorganic matter and humus. Bacteria in presence of air was essential for purification of sewage, as Dr. Nasmith showed by relating the results of a long series of experiments. He believed that the trickling filter system from the point of view of economy and success, had come to stay—

Dr. J. A. Amyot, of Toronto, discussed the "Bacterial Problems Involved in Biological Methods of Sewage Disposal." Only by bacteria was it possible to dispose of sewage properly. Two methods were ordinarily employed for this purpose, the anaërobic and the oxidization method. The first method compelled the holding of sewage for about twenty days, although probably fifty per cent. of the bacterial action occurred during the first twenty-four hours. The oxidization method was far more satisfactory, but even with it it was utterly impossible to secure any system in the results. The sludge tanks would reveal many different kinds of bacteria, even if they were treated alike. In them the oxidized matter is retained and treated for a day or two; little could be accomplished in a few minutes. The engineer must decide the exact way in which the system should be worked. Slow sand filtration was not enough to depend upon. We must disinfect; he saw no other way to handle it.

The meetings of Four Sections took place on Thursday, the fourteenth.

The first two papers, in the section of Medical Officers of Health, under the con-venorship of Dr. Louis Laberge, were on the Duties of Medical Officers of Health in their respective provinces, by Dr. J. W. S. McCullough, Chief Medical Officer of Health of Ontario, and Dr. M. M. Seymour, Commissioner of Health of Saskatchewan—

"Municipal Food Inspection" was the subject of the paper of Mr. P. B. Tustin, Chief Food Inspector, Winnipeg, Man. He criticised the hurried meal in the restaurant or at the lunch counter; while the modern housekeeper delighted not in her well-stocked larder as her mother did, but relied on the grocer and the baker for her supplies. Food inspection to be efficient, must cover the inspection from the raw material to the finished product. The inspector must see that the raw material is wholesome, that

the premises are sanitary, that those preparing it are clean and, finally, the premises of its final sale must be clean. He must protect the consumer and assist and educate the producer. To do this effectively the inspector must thoroughly understand foods and their preparation, and be familiar with the newer articles of food, which have appeared in recent years, and not condemn "sauerkraut, Limburger cheese, or Chinese meats and fish because they do not appear wholesome to him." Many insanitary conditions were due, not to willful neglect, but to ignorance, and so he must always be able to give a reason for any instructions he may have to give. Meat inspection must be both ante and post-mortem—only by this double inspection can its quality be guaranteed; and the ideal system of meat inspection could not be enforced until private slaughter houses were abolished and public abattoirs established instead. He said that the most important feature of food inspection was the milk supply, and he thought that too careful inspection could not be made of the premises and cows of dairymen. Inspectors, however, must be accurate in their decisions, else those whose property was seized and destroyed would sue for damages—

Dr. Sherreff, the Medical Health Officer of Ottawa, discussed "Municipal Milk Supplies." Dr. Sherreff noted carefully the different federal and municipal laws and commissions which dealt with the milk problem in towns and cities. He said that the producer, the distributor and consumer were all concerned in providing pure milk. The producer must have clean and healthy cows, housed in proper manner, and it was equally important that those who milked them should be clean especially their hands. In distributing the supply it should be handled as little as possible in the original containers. These should be spotlessly clean and free from every germ. When the milk reached the consumer municipal control was almost impossible, as any attempt to regulate it then raised the cry of invasion of individual rights. Little could be done except agitate and educate through trained nurses and the establishment of pure milk depots in order to maintain the purity of the supply after it enters the house. Dr. Sherreff advocated that all cows be tuberculin tested, and that the federal authorities should compensate any dairyman whose



cows were destroyed for the public good—

The following papers were also presented: "Dust as a Factor in Disease," by W. F. Shaw, M.D., Medical Officer of Health, Callander, Ont.; "The Control of a Scarlet Fever Epidemic and Its Difficulties," by T. H. Whitelaw, M.D., Medical Officer of Health, Edmonton, Alta., both of which will be printed in full with those detailed above in subsequent issues of *The Journal*.

The convenor, Dr. J. A. Amyot, outlined the objects of the Laboratories Section—Section II.—and also presented an address on features which it was desirable for this Section to consider. Papers were presented by Major H. M. Jacques, P.A.M.C., on "Hygiene Laboratories in Military Camps"; F. T. Shutt, M.A., F.I.C., "Farm Water Supplies in Canada"; C. H. Higgins, D.V.S., "Biological Products"; T. A. Starkey, M.D., D.P.H., F.R.S.I., etc., "Use of Special Media for Diagnostic Purposes in Regard to B. Diphtheria and B. Pestic"; L. J. Rhea, M.D., "Preparation of Media by Proteolytic Methods," and Campbell Laidlaw, M.D., "Vaccines and the Common Cold—"

Arising out of the discussion of the paper on Biological Products it was resolved, "That the convenor be requested to take the necessary steps to have a resolution adopted by the general Association for the proper supervision of all biological products by the Federal Government—"

The convenor suggested that some regulations regarding procedure in the conduct of business of the Section was desirable and it was resolved that "The duties of officers of the Laboratory Section shall bear the same relation to the Laboratory Section as the administrative officers of the Canadian Public Health Association bear to the parent organization." It was also resolved, "That all papers to be presented before the Laboratory Section are to be in the hands of the Convenor or Secretary three weeks before the date of meeting; abstracts, if possible, are to accompany each paper, and should consist of not more than five hundred words—"

Officers for this Section were elected as follows: Convenor, Dr. J. A. Amyot, Toronto; Secretary, Dr. C. H. Higgins, Ottawa; Councillors, Dr. Heagerty, Montreal; Dr. Campbell Laidlaw, Ottawa, Dr. R. St. J. Macdonald, Montreal.

Papers were submitted to Section III., Sanitary Engineers and Architects, convened by T. Aird Murray, M.C.S.C.E., and illustrated by lantern slides upon the following subjects: "Garbage Removal and Destruction," by R. H. Knight, C.E.; "Chlorination of North Toronto Water Supply," by E. A. James, C.E.; "Gravity Mechanical Filtration at Saskatoon," by Geo. Clark, C.E.; "Water Supply by Air Tank Pressure for Small Towns," by F. McArthur, C.E.; "Mistakes to be Guarded Against in Water and Sewerage Schemes for Towns," by C. E. Blanchard, C.E.; "Natural Ventilation as Applied to Private Houses," by T. W. Ludlow, B.Sc., L.R.I.B.A.; "Town Planning," by J. R. Gardner, President Architects' Association, Montreal, and "Water Borne Typhoid at Pembroke," by B. G. Michel, C.E.—

At the close of the session a business meeting was held, and a Sectional Committee for 1912 elected, consisting of the following: Messrs. G. T. Clarke, R. H. Knight, Peter Gillespie, T. H. Hogg, J. T. Farmer, with T. Aird Murray as Convenor.

Under the efficient convenorship of Dr. Grace Ritchie-England, the following papers were presented at Section IV., that of Social Workers: "The Value of Exhibitions as Agents in the Public Health Campaign," J. Geo. Adami, M.A., M.D. (Cantab.), LL.D., F.R.S.C., Professor of Pathology, McGill University, Montreal; "Some Recent Advances in the Medical Inspection of Schools," Mrs. C. Smillie, Montreal; "Work for Women as Sanitary Inspectors," Miss Ethel Hurlbatt, M.A., Royal Victoria College, Montreal; "The More Important Causes of the High Infantile Mortality in Large Cities, and the Influence Exerted by Milk Depots," A. D. Blackader, B.A., M.D., Professor of Pharmacology and Therapeutics, McGill University, Montreal; "Educational Work for the Reduction of Infantile Mortality in Great Britain," Miss Ellen Babbitt, Department of Child-helping, Russell Sage Foundation, Special Agent, New York, U.S.A.; "What Should we do for the Feeble-Minded?" Dr. Helen MacMurchy; "What the Federal Government Might Do to Assist in the Control of Tuberculosis," D. A. MacDougall King, M.D., Ottawa; "Playgrounds and Open Spaces as Factors in Public Health," Miss Edith Watt, Montreal—

In connection with Dr. Adami's contri-



bution, Prof. Dale and Dr. Craig emphasized the value of exhibitions from the educational standpoint. The papers by Mrs. Smillie and Miss Hurlbatt were discussed together. Dr. Baudin stated that he would be glad to see a motion presented during the course of the Convention praying the Provincial Government to take steps leading to the establishment of a system of general inspection of all schools throughout the province. Sir James Grant and the Rev. Robt. Campbell spoke appreciatively of the results of school inspection, and particularly of the good results following the education of the mothers. Both gentlemen were of the opinion that much work of this nature could be best performed by women. Dr. Hastings, of Toronto, drew the attention of the meeting to the value of school inspection not only in so far as the control of infectious disease was concerned, but also on account of the opportunity offered to increase the general hygienic knowledge of the pupils, and through them the homes from which they come. In Toronto the doctor said classes were being held under the auspices of the Board of Education for instruction of the mothers in the care of infants and children with most gratifying results. "The importance of a law making vaccination compulsory is shown by the fact that in Toronto, where they have no such law 75 per cent. of the children in the kindergarten classes are unvaccinated. The majority of those who are vaccinated are of foreign birth." In the discussion of the papers by Dr. Blackader and Miss Babbitt emphasis again was laid upon the fact that it is by the education of the mothers that the terrible infant mortality is to be reduced. In connection with Dr. King's paper Mrs. McCarthy presented a report of the work being done at the Royal Edward Institute. Dr. Fraser B. Gurd is Secretary of this Section.

At the final business meeting, Dr. P. H. Bryce and Dr. F. Montizambert were made honorary members of the Association, Dr. Charles A. Hodgetts, Medical Adviser to the Commission of Conservation, Ottawa, was elected President for 1912, Major Lorne Drum, M.D., D.P.H., P.A.M.C., Ottawa, General Secretary, and George D. Porter, M.B., of Toronto, Treasurer; and the invitation of Toronto, that the 1912 Congress be held in that city, was accepted.

A list of the directors, officers, etc., for

1912 is given on advertising page II. of this issue.

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### Possible Changes in the Ontario Health Act.

A change in the system of health inspection is one of the probable pieces of legislation in the the next session of the Ontario Legislature.

It is said that seven inspectors will be appointed by the Government, and that they will have complete charge of all matters relating to sanitation. Their salaries, which will be adequate to the position will be assessed to the municipalities. The new scheme will probably mean the displacement of the present local officers and Boards of Health, except in the larger cities. There are about 800 in the Province at present. Reform is felt to be needed especially in small places, and in rural districts where the health officers receive only a mere pittance, and can devote only a small part of their time to the work of inspection and supervision.

The new Provincial officers, if appointed, will be under the Chief Provincial Health Officer, Dr. J. W. S. McCullough. They will be well qualified medical practitioners, who will be paid enough to let them devote all their time and attention to the important work of safeguarding the public health. For some time the Government has been considering a revision of the Health Act, and still further changes besides those outlined may be expected.

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### Montreal Health Board Reorganization.

It has recently been suggested by a deputation of Montreal physicians that the Health Department of that city be under the control of the Medical Health Office; that there be provided a medical library for the use of health inspectors and that lectures be given them; that all employes of this department pass examinations as to fitness and ability; that nurses can be employed so that young mothers can be instructed in the care of infants; that medical health inspectors be given good salaries and be not permitted to engage in private practice; that all cases of contagious diseases in the city be promptly reported to the health department by doctors and others; that the Health Department send to medical men of the city a monthly report



as to health conditions; that chemical and other departments be created and attached to the Health Department, that fines and penalties on all who disobey the health laws be made more severe; that refrigerator cars be used by railways for the conveyance of milk; that new incinerators be constructed; that all the quarries be emptied of water and filled with earth; that steps be taken to establish tuberculosis hospitals in different parts of the city; that vaccination be made absolutely compulsory; that all night refuges must be licensed and be under the control of the city.

### A Story of Sir James Grant.

Sir James Grant, when in Montreal, attending the recent Congress of the Canadian Public Health Association, met for the first time the sister of a little tot whose life he probably saved in the year 1864, and whom he has never met since, and did not even know her name until the meeting.

Miss Ellen Babbitt, special representative of the Russell Sage Foundation of New York read a paper at the meeting on the reduction of infantile mortality in Great Britain, which will appear in *The Public Health Journal*, and it was while congratulating the lady on the able manner in which she presented the facts that the venerable physician discovered the identity of the babe of '64. In telling the story, Sir James said:

"In 1864 I was travelling to Washington to make a report to the Government on the crowded ill-ventilated and ill-regulated hospitals of the American civil war. It was a night trip and I was awakened by the cries of an infant which undoubtedly had a severe attack of croup. I called the porter, advised him to see the mother and tell her of the danger and ask her if she would like my assistance. When told that I was a physician the mother at once sent for me and fortunately I had the very remedy for croup in my valise. I heard no more from the child or mother during the night, and I naturally came to the conclusion that my prescription had had a good effect. Where the mother and child got off I did not know, and I often wondered who they were and if the little one finally became well. In congratulating Miss Babbitt I happened to speak of my

adventure of half a century ago, and she in turn remarked that just such a thing happened to her sister when she was an infant. Gradually the thing came out, here was the very sister of the baby I helped. Miss Babbitt told me that her sister had a quick recovery and is to-day enjoying the best of health. So much for medicine and an early application. I was indeed pleased and some day I hope to see the 'baby' again.

### Quebec and the Act Concerning Juvenile Delinquents.

Joseph Dumont, Deputy Provincial Secretary of Quebec, has announced that on Dec. 14th last, the Act 1 Geo. V. (1910), ch. 26, entitled: "An Act respecting Juvenile Delinquents," sanctioned on the 4th day of June in the year 1910, went into force from the twenty-sixth day of December last. The Act concerns:

1. The establishment and maintenance of the Juvenile Delinquents' Court; 2. The establishment and maintenance of one or more houses of detention or refuge where children as defined by the Act of the Parliament of Canada, 7-8 Edward VII., chapter 40, may be detained while waiting trial under the provisions of the said Act.

### Halifax Amendments to City Health By-laws.

By-law No. 3 of the By-laws of the Halifax City Health Board was last month amended by adding thereto the words following, as reported by John A. Watters, Secretary:

2A. (1) "Every building any part of which is used as a shop for the sale of goods shall have a water closet, for the use of the persons employed in or about such shop, to which they shall have free access at all times when so employed."

(2). "If such building does not front on a street in which a public sewer is built, a privy or other sanitary convenience, in the building or on the premises connected therewith, approved by the Board, may be substituted for such water closet, but any such privy or other convenience shall be removed and a water closet substituted when a sewer is built in the street on which such building fronts."



## INTERNATIONAL

## ADVANCE NOTICES.

*Fifteenth International Congress of Hygiene and Demography*, Washington, D.C., last week of September, 1912. J. W. Schereschowsky, Director.

*Fourth International Congress of School Hygiene*, Buffalo, in the summer of 1913—particulars later.

*Conjoint Meeting, International Association of Medical Museums and International Congress of Medicine*, London, England, in the summer of 1913. Particulars later. Dr. Thursfield and Dr. Woodwark, of St. Bartholomew's Hospital, and Dr. Kettle, of the Cancer Research Hospital, Local Secretaries.

*Fifteenth International Sanitary Congress of American Countries*, Santigao, Chili, November, 1912. Dr. Alexander De Rio, President.

*Far Eastern Association of Tropical Medicine*, second biennial congress, Hong Kong, China. January 20th to 27th, 1912. Under the presidency of Dr. J. Mitford Atkinson, Hong Kong; Dr. Francis Clark, Secretary-Treasurer General, Hong Kong.

*International Congress on Tuberculosis*, Rome, April, 1912.

*International Red Cross Conference*, Washington, D.C., May 7-15, 1912. Dr. C. R. Dixon, Secretary, 192 Bloor St. West, Toronto, Ontario.

*International Eugenic Congress*, London, England, July 24-30, 1912; address the Honorable Secretary, 6 York Buildings, Adelphi, London, England.

*Seventeenth International Congress of Medicine*, London, England, summer of 1913; further particulars of this Congress will be given later. Honorary General Secretary, Prof. H. Burger, Vondelstraat, Amsterdam.

*League of American Municipalities*. The next convention of the League of American Municipalities will be held in Buffalo, N.Y., and in 1913 it will likely be held in Winnipeg.

*International Marine Congress*, Philadelphia, July, 1912. This Congress met last year in Brussels, and when the United States authorities extended the invitation to the Congress to meet in Philadelphia, 1912, they, at the same time, invited the Canadian Government to assist in carrying out the honors of the North American Continent. The party will, therefore, be taken over by the Canadian Government at Port Arthur after the Philadelphia meeting, and will go to Montreal, stopping on the way at Owen Sound, Toronto, Kingston and other lake ports.

**American Public Health Association.**

Municipal health departments, if organized upon the model lines suggested to the American Public Health Association, at its convention in Havana, Cuba, by a committee of which Dr. Joseph S. Neff was chairman, would cost 45 cents per capita of population for maintenance. Under this plan of organization every field of activity which should properly come under the supervision of public health officials could be handled by competent persons.

The report was compiled by the committee on organization and functions of municipal health departments, based upon correspondence with eighty-eight cities in the United States, Mexico, Canada and Cuba, having a population of 25,000 or more.

In its model plan of organization the committee covered everything having relation to the duties of a public health department, on the ground that it would be a simple matter for any municipality desiring to adopt the plan to eliminate any section which it did not desire.

Preliminary to outlining the executive branches of a model health department the committee makes the following observa-

tions concerning the organization of the board of health, which should be the legislative branch. The report states:

"The mayor should be ex-officio member of the board of health, which should consist of the health commissioner, head of the department of public safety, head of the department of public works, and two others to be appointed by the mayor with or without the indorsement of the legislative body of the city government, one of whom should be a sanitary engineer and one a lawyer.

"The board should serve without salary. The functions of the board should be purely legislative and advisory. It should be clothed with power to enact laws in relation to the public health. These powers are too great to invest in any one man. The board should also have the appointment of its secretary and of its health commissioner.

"The commissioner of health should be under the control of the board of health only in so far as pertains to the execution of laws enacted by it, but he should be under its influence as acting in an advisory capacity. The commissioner should be the supreme executive of the municipal department of health. His appointment should



be permanent and influenced by efficiency and not politics. Inefficiency or malfeasance in office should be the only cause for discharge. The power of discharge should lie with the board, subject to an appeal by the commissioner to a court of record, provided such appeal be made within 10 days."

The plan of organization provides for bureaus with divisions subject to the supervision of the chief. The bureau of medical inspection is divided into the following divisions: Inspection of contagious diseases, hospital for contagious diseases, school inspection, child hygiene. Other bureaus and their divisions, which indicate the scope of public health activities under this plan, should be created as follows:

Bureau of food inspection with divisions for the inspection of milk, for the inspection of meat, fish and fowl, and for the inspection of all other foods and places of sale such as grocery stores, bakeries, restaurants, hotels, transportation companies and cold storage plants.

Bureau of sanitation with five divisions—house drainage, housing, nuisances and waste and refuse. The disposal of garbage and the cleaning of streets would be under the latter division.

Bureau of vital statistics, which should keep records of the deaths, births, marriages, registration of physicians and midwives, and compile records for the bureau of records and contracts.

Bureau of laboratories, with a chief bacteriologist, physician in charge of antitoxin and serum work and a physician in charge of research work.

Bureau of records, contracts and publicity, the duties of the chief of which would be to personally conduct all publicity, edit a weekly bulletin and all circulars and educational matters; compile all

statistics of the department; be responsible for all records and contracts, and take care of all accounts of the different bureaus.

Under the caption for each bureau is a detailed statement of the number of employes needed, their duties and their salaries. The schedule is made with a view to meeting the needs of a city of 500,000. The cost is summed up in the following statement:

"Total cost as enumerated, 41 cents per capita of population, \$204,975; allowing \$5,000 for postage, printing and incidentals, the cost would be 42 cents per capita or \$233,175; allowing \$17,000 for new equipment and supplies, the cost would be 45 cents per capita or \$250,000."

This plan of organization pertains only to health work and not to charities. The plan was offered by Director Neff of Philadelphia as a basis of argument and not as the final judgment of the committee. The report was read at the Havana Convention by Chief Vogleson, of the Bureau of Health, who represented Dr. Neff at the meeting.

Dr. J. N. Hurty, of Indianapolis, Ind., was chosen President for 1912 of the American Public Health Association to succeed Dr. Robert M. Simpson. The election was held at the closing session of the meeting of the Association. Drs. Frederick Torralbas, of Havana, and A. J. Douglas, of Winnipeg, were chosen Vice-Presidents; Dr. William C. Woodward of Washington, Secretary, and Dr. Frank M. Wright, of New Haven, Conn., Treasurer. "Much has been accomplished by the Association," said Dr. Simpson, the retiring President, "This meeting has demonstrated the advantage and necessity of international cooperation on the American continent in medical sociology."

## UNITED STATES

### ADVANCE NOTICES.

*Eighth Annual Meeting of the National Association for the Study and Prevention of Tuberculosis.* The eighth annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held in Washington in the third week of May, 1912, the exact dates to be announced later. The general organization of the program will be as follows: Clinical Section, Chairman, Dr. Charles L. Minor, Asheville; Pathological Section, Chairman, Dr. William H. Park, New York; Sociological Section, Chairman, Mr. Frederick L. Hoffman, Newark. The chairman of the Advisory Council for the annual meeting is Dr. Charles O. Probst, of Columbus, Ohio.



### Third Child Welfare Exhibit.

With the purpose of presenting the case of "The Child vs. Disease and Crime" so graphically that it cannot be misunderstood, the third child welfare exhibit held in the United States was held from Nov. 4th to 9th inclusive, in St. Louis.

Special attention was given to the welfare of children in the congested districts of large cities. Ventilation, sanitation, pure food and public playgrounds were among the subjects considered.

Leading dentists of the city gave mothers practical lessons in the care of their children's teeth and oculists showed how children's eyes should be cared for.

### St. Louis Health and Sanitary Exposition.

The St. Louis Health and Sanitary Exposition, held at the Coliseum Nov. 16-23, exhibited ways of promoting public health. Side by side with the unsanitary housing conditions in the slum district, as prepared by the Civic League, was shown the improved tenement, not in any sense Utopian, but practical in every sense and making full provision for light, air and cleanliness. That slums are not a necessary evil of city life is being agitated by health authorities everywhere, and if improvement is slow, it is in a measure due to the slum dwellers, who, like Ardelia, are bored by too much sanitation and prefer a "horribly smelly street."

A playground was shown, as nearly related to those conducted in the open parks as indoor conditions will allow. There were sand piles for the slide, and every afternoon while the show was in progress, children from different sections of the city, in charge of instructors, played their games. The playground formed part of the Park Department exhibit. On Saturday night of the show, there were special drills by classes made up of girls from the gymnasium classes of the Y.W.C.A.

### The New York Budget Exhibit.

The Budget Exhibit is an annual object-lesson to the taxpayers of New York City, showing them how the local taxes are expended. The departments of health and charity naturally occupy considerable space and attract much attention from the

15,000 daily visitors. An interesting exhibit this year is a model milk station for children, in which is a huge map of Manhattan borough, showing every infant death of the past year marked with a black dot. Moving pictures display various sections of the over-crowded East Side.

### Minnesota State Sanitary Conference.

The welfare of school children, tuberculosis as a state problem, infant mortality, the future of official public health organization and insanity are the five chief topics that received the attention of the health officers, school teachers and physicians of Minnesota at the annual meeting of the *Minnesota State Sanitary Conference* at the Saint Paul last month.

"The Commercial Value of Good Health and the Indirect Cost of Unhygienic and Unsanitary Surroundings," was the subject of an excellent address, delivered by H. A. Tomlinson, M.D., superintendent of the State Hospital for the Insane at St. Peter, and president of the Association. Dr. H. M. Bracken, secretary of the State Board of Health, spoke on "The Status of County Public Health Supervision Throughout the United States."

Other addresses were: "Report of Committee on the Relations of Public Health and Insanity," by A. S. Mamilton, M.D., instructor in nervous and mental diseases, University of Minnesota; "The Duty of the State in the Suppression of Tuberculosis," Dr. W. J. Marcle, of the State Tuberculosis Commission, late superintendent of the Walker State Sanatorium; "Infant Mortality," J. T. Gerould, vice-president of the Association; "Hygienic Essentials in School Construction," Prof. F. H. Bass, director of the division of engineering, State Board of Health; "Public Health Supervision in Minnesota," Dr. J. W. Robertson, president of the State Medical Society, Litchfield; "Dusty Streets and Tuberculosis," Dr. H. W. Hill, director of the division of epidemiology, State Board of Health.

As a feature of the meeting the State Board of Health presented as exhibits the work of the tuberculosis exhibit, the work of the laboratory, engineering, epidemiological and vital statistics, divisions and the work of the lecture bureau.



# THE EMPIRE AND THE WORLD ABROAD

## ADVANCE NOTICES.

*Pure Food and Health Society Congress of Great Britain, London, England, March, 1912.*  
Particulars later.

*Congress of the Universities of the Empire, London, England, July 2nd, 3rd, 4th and 5th, 1912.* Fifty-one universities have arranged to send representatives; and among the questions proposed to be discussed by them are the following: University Organization; Universities in Their Relation to Teachers and Undergraduate Students; Universities in Their Relation to Post-Graduate Research Work; Universities in Their Relation to Schools and to Agencies for Higher Education. Other subjects for discussion will probably be: Whether any Common Understanding Will be Possible Among the Universities of the Empire as to the Extent to Which They Could Recognize Each Others' Entrance Examinations; The Desirability of Increased Facilities for Post-Graduate Study; The Possibility of Some Plan of Interchange of Professors; What Could be Done by Universities in Regard to After Careers of Students, and the whole question of the Financial Support Given from Public Sources to Universities. Inquiries with regard to the Congress should be addressed to Dr. R. D. Roberts, at the Congress Office, University of London, South Kensington, London, England.

*Royal Institute of Public Health.*—The Council of the Royal Institute of Public Health have accepted an invitation from the Chief Burgomaster of Berlin to hold their 1912 Congress in that city, from Thursday, July 25, to Sunday, July 28, inclusive. A Local General Arrangements Committee has been formed consisting of representatives of the Royal Ministry of the Interior, the Imperial Board of Health, the City of Berlin, the medical officers of the Headquarters Staffs of the Army and Navy, the University of Berlin, the medical and hygienic societies of Berlin, and other societies, to promote the success of the meeting. The Congress will be under the presidency of Lord Beauchamp, his Majesty's First Commissioner of Works, and will be conducted in the following sections: State Medicine, President, Sir T. Clifford Allbutt, Regius Professor of Medicine in the University of Cambridge; Bacteriology and Comparative Pathology, President, Professor G. Sims Woodhead, Professor of Pathology in the University of Cambridge; Child Study and School Hygiene, President, Sir James Crichton-Browne, Lord Chancellor's Visitor in Lunacy; Military, Colonial, and Naval, President, Major Sir Ronald Ross, Professor of Tropical Medicine in the University of Liverpool; Municipal Engineering, Architecture, and Town Planning, President, Mr. P. C. Cowan, Chief Engineer of the Local Government Board, Ireland. Facilities will be afforded for visits to be made to the various public health and educational institutions in Berlin and other places. *Conference of Teachers' Association, London, July 12-16, 1912.*

### South African Branch of the Royal Sanitary Institute.

The South African Branch of the Sanitary Institute held a congress in Cape Town on November 9th, 10th and 11th last. This was the first sanitary congress to be held in British South Africa, and a large number of delegates were present from municipalities and other Authorities interested in sanitation. Among the subjects discussed were, "The Disposal of Sewage," "The Prevention of Tuberculosis," "The Inspection of Food, Milk Supplies, and School Hygiene"; papers were also read dealing with other aspects of public health work. The South African Branch, which has only recently been established by the Royal Sanitary Institute, seems to be energetically carrying on the traditions of the parent Institution, and no doubt its work will have a beneficial effect in the development of public health administration in the Union of South Africa. The Hon. Secretary to the branch is Dr. A. Jasper Anderson, the Medical Officer of Cape Town.

### Paris "Dog-Mouth."

Paris reports a disfiguring ailment as having appeared among women who have formed the habit of kissing their pet dogs. The disease is as yet stated to be confined to Paris, where dog pets are more numerous than in any other city, with a few cases reported in London.

Paris physicians have not given the disease a scientific name, but the French equivalent for "dog-mouth" is the accepted colloquialism that has caused hundreds of fashionable women to keep their canine friends at a wholesome distance from their faces.

The disease does not appear nearly as severe in dogs as it does when conveyed to human beings, which is always the case with human infection from animals. The only symptoms that the dogs show is that of rubbing the muzzle against things and sneezing or coughing a good deal. But when contracted by a human the symptoms become alarming.