

## BIBLIOGRAPHY AND INDEX OF AUTHORS

*The various pages in this book, on which an author is quoted, will be found in the last column; the subject matter of the particular quotation will be found in the second and third columns opposite the page number.*

Author	Title of Reference	Page in Reference	Page
ADAMI, J. G. LT. COL. . . . .	Personal Communication . . . . .		54
ALBRECHT, H. AND GHON, A. . . . .	"Ueber die Aetiologie und pathologische Anatomie der Meningitis Cerebrospinalis Epidemica" . . . . . Wien. Klin. Woch. No. 41. 1901	98	118, 152, 154, 162
ANDRÉ, J. M. . . . .	"Contribution à l'Étude des Lymphatiques du Nez" . . . . . Thèse de Paris. 1905. G. Steintheil. Paris		94
ANDREWES, F. W. . . . .	"A Case of Acute Meningococcal Septicaemia" . . . . . Lancet. Vol. i. 1906	1172	43, 97, 117
AIRALDI . . . . .	Quoted by Corradi, Annali delle Epidemiche occorse in Italia. Vol. vii. Appendice . . . . .	963	4
ARKWRIGHT, J. A. . . . .	"On the occurrence of the Micrococcus Catarrhalis in normal and catarrhal noses and its differentiation from other gram-negative Cocci" . . . . . Journal of Hygiene. Vol. vii. 1907	145	167
	"Discussion on Epidemic Cerebro-spinal Meningitis" . . . . . Proc. Roy. Soc. Med. Vol. viii. No. 5. 1915	69	3
BARKER, A. E. J. . . . .	"The possible uses of lumbar puncture in the treatment of Otitic Meningitis" . . . . . Proc. Roy. Soc. Med. Vol. i. Surgical Section. March, 1908	393	31
BATTEN, F. E. . . . .	"Meningitis" . . . . . Allbutt and Rolleston's System of Medicine. Vol. viii. 1910	165	60, 61
BETTENCOURT A. AND FRANÇA, C. . . . .	"De la Méningite Cérébro-Spinale épidémique et son agent spécifique" . . . . . Bulletin de l'Institut Pasteur. Tome II. 1904	338	162
BIOT . . . . .	Étude Clinique sur la Respiration Cheyne Stokes. Paris. 1878		18, 45

*Bibliography and Index of Authors*

199

Author	Title of Reference	Page in Reference	Page
BOLDUAN, C. AND GOODWIN, M. E. . . . .	"A Clinical and Bacteriological Study of the communicability of Cerebro-spinal Meningitis and its probable source of contagion" . . . . .		123
BROWN, F. J. . . . .	Medical News. Vol. LXXXVII. 1905 "On an epidemic of Cerebro-spinal Meningitis at Rochester with introductory remarks on other epidemics that preceded it" . . . . . Trans. Epidem. Soc. Vol. II. Part II. Session 1865-66	1222	6
BRUNS AND HOHN . . . . .	Klin. Jahrbuch. XVIII. 1908 . . . . .	391	135
BURTON FANNING, MAJOR F. W. . . . .	Personal Communication . . . . .	285	58
CARR, J. W. . . . .	"Non-Tuberculous Posterior Basic Meningitis in Infants" . . . . . Medico-Chir. Trans. Vol. LXXX. 1897	303	59
CHALMERS, A. K. . . . .	"Discussion on Epidemic Cerebro-Spinal Meningitis" . . . . . Proc. Roy. Soc. Med. Vol. VIII. No. 5. Sect of Epidem. 1915	50	10
CONNER, L. A. . . . .	"Biot's Breathing" . . . . . Amer. Jour. of Medical Sciences. CXLI. 1911	350	45
CONNER AND STILLMAN . . . . .	"A Pneumographic Study of respiratory irregularities in Meningitis" . . . . . Archives of Internal Medicine. IX. 1912	203	45
CORNING, L. . . . .	"Spinal Anaesthesia and Local Medication of the cord" . . . . . New York Medical Journal. XLII. 1885	483	29
COUNCILMAN, MALLORY AND WRIGHT . . . . .	Report of State Board of Health, Massachusetts. Boston. 1898 . . . . .		9, 119, 148, 153
CROHN, B. . . . .	"An improved apparatus for estimating the pressure in the Cerebro-Spinal System" . . . . . Journal of the American Medical Association. Vol. LVI. 1911	962	34
CURRIE, J. E. AND MACGREGOR, A. S. M. . . . .	"The Serum Treatment of Cerebro-spinal Fever in the City of Glasgow Fever Hospital, Belvidere, between May 1906 and May 1908" . . . . . Lancet. Vol. II. 1908	1073	10, 106
DOPTER, C. . . . .	"Étude de quelques germes isolés du Rhinopharynx voisin du Méningococques Para-méningococques" . . . . . Compt. Rend. de Soc. de Biol. LXVII. 1909	74	107, 165, 166, 167
DUNHAM, E. K. . . . .	"Comparative Studies of Diplococci decolorized by Gram Method obtained from the Spinal fluid and the Nares in cases of Cerebro-spinal Fever" . . . . . Journ. Infect. Dis. Sup. II. Feb. 1906		163
			10

200 *Bibliography and Index of Authors*

Author	Title of Reference	Page in Reference	Page
DUNN . . . . .	Boston Medical and Surgical Journal. LI. 1908	370	73
ELSER, W. J. AND HUN- TOON, F. M. . . . .	"Studies in Meningitis" . . . . . Journal of Medical Research. Vol. xx. 1909	519 384 493 494 418 433 384	105, 117 147 152 153 158 160, 163 164, 165, 166
EMBLETON, D. AND PETERS, E. A. . . . .	"Cerebro-spinal Fever and the Sphenoidal Sinus" . . . . . Lancet. Vol. I. 1915	1078	104
FERRON, M. . . . .	"La Méningite Cérébro-Spinale Épi- démique dans les Landes, 1837-39" Bulletin Médical. Paris. Vol. xxiv. 1910	3	4
FLEXNER, S. . . . .	"The results of serum treatment in 1300 cases of Epidemic Menin- gitis" . . . . . Journal of Experimental Medicine. xvii. 1913	553	9, 65, 66, 71 74, 75, 76, 87 153
	"Experimental Meningitis in Mon- keys" . . . . . Journal of Experimental Medicine. ix. 1907	142	73, 153
FRANÇA, C. . . . .	"Discussion on Cerebro-spinal Me- ningitis, Sheffield" Lancet. Vol. II. 1908	478	9
GEE, S. J. AND BARLOW, T.	"On the Cervical Opisthotonos of Infants" . . . . . St Bartholomew's Hospital Reports. Vol. xiv. 1878	23	9, 59, 91
GERVIS, H., SURGEON, ASHBURTON . . . . .	"Account of a singular and fatal disease occurring in several persons in the same hamlet" . . . . . Med. Chir. Trans. Vol. II. 1817	236	6
GOODWIN, M. E. AND SHOLLY, A. J. VON . . . . .	"The frequent occurrence of meningo- cocci in the nasal cavities of Meningitis patients and those in direct contact with them" . . . . . Journ. Inf. Dis. Supp. II. Feb. 1906	21	124
GORDON, M. H. . . . .	"Epidemic Cerebro-Spinal Menin- gitis" . . . . . Loc. Gov. Board Report. 1907	94	142, 147
	"Identification of the Meningo- coccus" . . . . . R.A.M.C. Journal. Vol. xxiv. 1915	455	165
GORDON, M. H. AND MURRAY, E. G. . . . .	"Identification of the Meningo- coccus" . . . . . R.A.M.C. Journal. Vol. xxv. 1915	411	165, 166

*Bibliography and Index of Authors*

201

Author	Title of Reference	Page in Reference	Page
HALLIBURTON, W. D.	"Cerebro-Spinal Fluid" . . . . . Journ. of Physiology. Vol. x. 1889	232	109
HEIMAN, H. AND FELD- STEIN, S.	Meningococcus Meningitis. Phila- delphia. 1913 . . . . .	1 156 238	1 30 73 91, 142
HEUBNER, O.	"Beobachtungen und Versuche über den Meningokokkus intracellu- laris (Weichselbaum, Jaeger)" . . Jahrbuch für Kinderheilk. XLIII. 1896	1	
HIRSCH, A.	Treatise on Geographical and His- torical Pathology, translated by Creighton. 1886 . . . . .	547 549 555 564	3 4 6 8
HORDER, T. J.	Cerebro-spinal Fever. 1915 . . . .	104 167	23, 30, 58 84
HORN, A. E.	"Cerebro-Spinal Meningitis in the Northern Territories of the Gold Coast" . . . . . Society of Tropical Medicine and Hygiene B.M.J. Vol. II. 1908	1372	10, 11
HOUSTON, T. AND RAN- KIN, J. C.	"Opsonic and Agglutinative Power of blood serum in Cerebro-spinal Fever" . . . . . B.M.J. Vol. II. 1907	1414	106
JAEGER, H.	Die Cerebro-spinal Meningitis als Heeresuche. Berlin. 1901. . . . . Die spezifische Agglutination der Meningokokken u.s.w. . . . . Zschr. f. Hyg. u. Infektionskrank. XLIV. 1903	1 225	91, 142 91
JOCHMANN, G.	"Versuch zur Serodiagnostik und Serothérapie der Epidemische Ge- nickstarre" . . . . . Deutsch. Med. Woch. No. 20. 1906	788	73, 76
KEEN, W. W.	American Text-book of Surgery. Vol. I. 1893 . . . . .	522	53
KER, C.	"The Treatment of Cerebro-Spinal Meningitis with Flexner's serum" Edinburgh Medical Journal. I. 1908 "A Review of Recent Work on Epi- demic Cerebro-spinal Meningitis" Practitioner. XXVII. 1908	306 66	53, 73 22
KERNIG OF PETROGRAD	"Ueber ein wenig bekanntes Symptom der Meningitis von Kernig" . . . . . (Wratsch 1884, No. 26-27 Russisch) Neurologisches Centralblatt 1884. Dritter Jahrgang	391	
KIEFER, F.	"Zur Differentialdiagnose des Erre- gers der Epidemischen Cerebro- spinal Meningitis und der Gonor- hoe" . . . . . Berl. Klin. Woch. xxxIII. 1896	628	119

202 *Bibliography and Index of Authors*

Author	Title of Reference	Page in Reference	Page
LEES, D. B. AND BARLOW, SIR THOMAS . . . . .	"Simple Meningitis in Children" . Allbutt's System of Medicine. Vol. VII. 1899	492	60, 61
LIEBERMEISTER, G. AND LEBSANFT, A. . . . .	"Ueber Veränderungen der nervösen Elemente an Rückenmark bei Meningitis Cerebrospinalis Epi- demica" . . . . .	914	104
VON LINGELSHEIM . . . . .	"Berichte über die in der Hygieni- sche Station zu Beuthen, O. S. vorgenommenen bakteriologischen Untersuchungen bei Epidemische Genickstarre" . . . . .	1017 1217	106, 147, 153
LOW, G. C. . . . .	"The Treatment of Epidemic Cerebro-spinal Meningitis" . . . . .	376	84
LOWE, G. M. OF LINCOLN . . . . .	"On an epidemic of Cerebro-spinal Meningitis" . . . . .	790	7
LUNDIE, THOMAS, FLEMING AND MAC- LAGAN . . . . .	"Cerebro-Spinal Meningitis, Diag- nosis and Prophylaxis: Its Re- cognition and Treatment" . . . . .	466 493 628 836	26 123
MACDONALD, S. . . . .	"Observations on Cerebro-spinal Meningitis" . . . . .	432	153
MCDOWELL, J. E. . . . .	"Observations on a peculiar type of nervous fever characterized by a functional excitement of the Cerebro-Spinal nerves" . . . . .	850	6
MACEWEN, SIR WILLIAM . . . . .	Pyrogenic Infections of the Brain and Spinal Cord. 1893 . . . . .	146 147	56
MCGREGOR MACKENZIE, I. AND MAR- TIN, W. B. . . . .	<i>See Currie and McGregor</i> "Serum Therapy in Cerebro-Spinal Fever" . . . . .	539	107
MATHEY, A. . . . .	"Sur une Maladie Particulière qui a regné à Genève en 1805" . . . . .	243	2
MAYER, WALDMANN, FÜRST AND GRÜBER . . . . .	"Ueber Genickstarre besonders die Keimträger Frage" . . . . .	1584	120
MAYNE, R. . . . .	"On Cerebro-spinal Arachnitis" . Dublin Quarterly Journal of Medical Science. Vol. II. 1846	90	6

*Bibliography and Index of Authors*

203

Author	Title of Reference	Page in Reference	Page
MEAKINS, J. C.	"The Method of fixation of Complement in the Diagnosis of Meningococcus and Gonococcus Meningitis" Johns Hopkins Hospital Bulletin. Vol. xviii. 1907		107
MELA, GIUSEPPI	"Commento sulla Spinite Epidemica che regno in Alassio e suoi contorni nel 1814." Torino. 1815. Quoted by Corradi, Annali delle Epidemie occorse in Italia. Vol. vii. Appendice	255	4
MORGAN, D.	An Account of an outbreak of Spotted Fever which occurred in Swansea during 1908. Swansea. 1909	963	76, 77, 78
NETTER, A. AND DEBRÉ, R.	La Méningite Cérébro-Spinale. Paris. 1911	5 101 154 114 154- 220 154- 221 21 84 208 112- 207 209 209 255 256 257 258 257 257 223 146 183 32	5 20 41 42 43 44 63 64 68 69 70 71 80 81 82 99 113 117 124
NORTH, ELISHA	Treatise on a Malignant Epidemic called Spotted Fever. New York. 1811		4
ORMEROD, J. A.	"Epidemic Cerebro-spinal Meningitis" Allbutt and Rolleston's System of Medicine. Vol. i. 1905	923 App. 939	6
OSLER, SIR WILLIAM	"Discussion on Epidemic Meningitis" Proc. Roy. Soc. Med. Vol. viii. No. 5. 1915	41	8, 10, 74, 76
QUINCKE, C.	"Ueber Hydrocephalus" Verhand. d. Cong. f. Innere Med. x. 1891 Die Technik der Lumbalpunktion. Berlin. 1902	321	28 28, 34, 108

204 *Bibliography and Index of Authors*

Author	Title of Reference	Page in Reference	Page
RANDOLPH, R. L.	"A Clinical Study of Forty Cases of Cerebro-Spinal Meningitis with reference to Eye Symptoms" Bulletin Johns Hopkins Hospital. Vol. iv. 1893		24
REECE, SURGEON COL. R. J.	"Notes on the prevalence of Cerebro-Spinal Fever among the civil population of England and Wales during the last four months of 1914 and first six of 1915, together with a short account of its appearance among troops" R.A.M.C. Journ. Vol. xxiv. 1915	59	10
RIST, A. AND PARIS, A.	"Contribution à l'étude clinique et expérimentale à diplococques de Weichselbaum" Bulletin de l'Institut Pasteur. Tome II. 1904	555	154
ROBB, GARDNER	"Discussion on Cerebro-Spinal Meningitis, Sheffield" B.M.J. Vol. II. 1908	338	9, 10, 74
ROLLESTON, SURG. GEN. H. D.	"Discussion on Epidemic Meningitis" Proc. Roy. Soc. Med. Vol. IX. No. 1	1341	30, 74, 76, 128
ROLLESTON, SURG. GEN. H. D.	"Discussion on Cerebro-Spinal Meningitis" Proc. Roy. Soc. Med. Vol. IX. No. 1	5	74, 80, 84, 85
ROUS, PEYTON	Quoted by Heiman and Feldstein	12 163	108
SASSI, GIACINTO	"Saggio sulla spinite epidemica che ha regnato in Albenga e paese convicini nella primavera nell'anno 1814." Genova. 1815 Quoted by Corradi, Annali delle Epidemiche occorse in Italia. Vol. VII. Appendice		4
SCOTT, JOHN	"Epidemic of Cerebro-spinal Meningitis at Sunderland in 1830" Medical Times and Gazette. Vol. I. 1865	962	6
SHIRCORE, J. V. AND ROSS, P. H.	"Epidemic Cerebro-spinal Meningitis in Nairobi" Trans. Soc. Tropical Medicine and Hygiene. 1913	515	84
SOPHIAN, A.	Epidemic Cerebro-spinal Meningitis. London. 1913	83	
		pref. 9 136 27 175 30 152 34 153 ) 58 41 58 43 102 52 101 53 53 63 147 71	

*Bibliography and Index of Authors*

205

Author	Title of Reference	Page in Reference	Page
SOPHIAN, A.	Epidemic Cerebro-Spinal Meningitis. London. 1913 . . . . .	211	} 77
		219	
		211	} 79
		219	
		208	} 80
		209	
		219	} 81
		220	
		221	} 82
		219	
		220	} 84
		221	
		192	} 107
		43	
		40	} 109
		152	
206	} 110		
213			
214	} 113		
113			
58	} 117		
61			
132	} 118		
43			
40	} 167		
STILL, G. F.	"The Bacteriology of the Simple Posterior Basic Meningitis of Infants" Journal of Path. and Bact. Vol. v. 1898	147	8, 59, 91, 103
TRAVERS SMITH, R. AND JOYCE, R. D.	"Experiences of an Epidemic of Cerebro-spinal Meningitis" Practitioner. March, 1903	346	24
UHTHOFF, W.	"Ueber das Augensymptom bei epi- demische Genickstarre" Ber. d. xxxii Versam. d. Ophthalm. Gesell. 1905	84	24
VEDDER, E. B.	"Starch Agar a useful Culture Medium" Journ. of Inf. Dis. xvi. No. 3. May, 1915	385	150
VIEUSSEUX, M.	"Sur la maladie qui a regné à Genève au Printemps de 1805" Journal de Médecine, Chirurgie, Pharmacie. Paris. December, 1905. Frimaire An xiv	163	2
VINES, H. W. C.	"A Starch Medium for the identifica- tion of the Meningococcus by its Sugar Reactions" R.A.M.C. Journal. Vol. xxv. 1916	89	159
WEICHSELBAUM, A.	"Ueber die Aetiologie der akuten Meningitis Cerebro-Spinalis" Fortschritte der Medicin. V. Jahr- gang. 1887	573 620	} 1, 28, 59, 90, 91, 142, 149, 153



206 *Bibliography and Index of Authors*

Author	Title of Reference	Page in Reference	Page
WEICHSELBAUM, A.	"Zur Frage der Aetiologie und Pathogenese der Epidemischen Genickstarre" Wien. Klin. Woch. 1905	992	162
WEST, C. E.	"The bacteriology of chronic post-nasal catarrh" Proc. Roy. Soc. Med. Otolological section. Vol. iv. 1911	44	133
WESTENHOFFER, M.	"Pathologische Anatomie und Infektionsweg bei der Genickstarre" Berl. Klin. Woch. Bd XLII. 1905	737	105
	"Ueber den gegenwärtigen Stand unserer Kenntniss von der übertragbaren Genickstarre" Berl. Klin. Woch. Bd XLIII. 1906	1267	105
	"Ueber die Praktische Bedeutung der Rachenerkrankung bei der Genickstarre" Berl. Klin. Woch. Bd XLIV. 1907	1213	11
WILKINSON, Col.	"Discussion on Cerebro-Spinal Meningitis" Proc. Roy. Soc. Med. Vol. viii. No. 5. 1915	81	6
WHITTLE, E.	"Varieties in the type of ordinary fever in Liverpool" London Medical Gazette. 1847	807	166, 167
WOLLSTEIN, M.	"The Para-Meningococcus and its anti-serum" Journal of Experimental Medicine. Vol. xx. 1914	201	167
	"Biological Relationships of Diplococcus Intracellularis and Gonococcus" Journal of Experimental Medicine, Vol. ix. No. 5. 1907	1	7
WOOLLEY, G. N.	"On an epidemic of Cerebro-Spinal Meningitis at Bardney" Lancet. Vol. ii. 1867	130	30
WYNTER, W. E.	"Four cases of Tubercular Meningitis in which Paracentesis of the Theca Vertebralis was performed for the relief of fluid pressure" Lancet. Vol. ii. 1891	981	

## GENERAL INDEX

- Abdominal reflexes, 23  
 Abortive cases, 49  
 Absence of pus in hydrocephalus, 102  
 Absorption of cerebro-spinal fluid, path of, 96  
 „ tests, 164  
 Acclimatization, importance of, in susceptibility, 127  
 Accumulative stage, 43, 117  
 Acute fatal type, 44  
 „ „ „ course of, 65  
 „ „ „ morbid anatomy of, 98  
 „ forms, 41  
 „ „ gradual recovery of, 51  
 „ type with recovery, 47  
 Adenoids as nidus for meningococcus, 122  
 Adhesions in cord, 53  
 „ in sub-arachnoid space, 109  
 Adynamic state, in hydrocephalus, 55, 67  
 „ „ in suppurative type, 50  
 „ „ indication for puncture, 82  
 „ „ value in prognosis, 67  
 Age, importance of, in infection, 127  
 „ of patient, value in prognosis, 68  
 Agglutination reactions, 162  
 „ „ classification by, 147  
 „ „ macroscopic method, 163  
 Agglutinative power of patients' serum, 78, 106  
 Agglutinins, specific, 164  
 Albenga, first epidemic period in, 4  
 Albumen, increase of, in cerebro-spinal fluid, 112  
 Alternation of good and bad days in hydrocephalus, 59, 67  
 Ambulatory cases, 43  
 Anaesthesia, daily, not harmful, 81  
 „ general for lumbar puncture, 30  
 „ „ „ serum injection, 79  
 „ local, 31  
 Anaphylactic symptoms, 80  
 Anatomy of membranes of brain, 92  
 „ „ of cord, 94  
 Ankle clonus, 23  
 Anorexia at onset of acute type, 47  
 Antiphlogistic treatment, 72  
 Apathy in hydrocephalus, 56  
 Aphonia, 26  
 Apnoea, in posterior basic meningitis, 60  
 Appetite, loss of, at onset, 13  
 Apyrexial periods, 16  
 „ „ in cases with gradual recovery, 52  
 Arthritis, morbid anatomy of, 104  
 „ treatment of, 87  
 Arthropathies, 25  
 Aspect, in early stage, 18  
 Aspirin, for headache, 87  
 Attendants, risks to, 131

208 *General Index*

- Attitude of patient in early stages, 18  
 Auricular fibrillation, 27  
 Autolytic ferment, 150  
 Auto-sedimentation, 163
- Babinski's plantar reflex, 23  
 Back, pain in, see Pain in back  
 Bactericidal power of patient's serum, 107  
 Bacteriological characteristics of cerebro-spinal fluid an indication  
 for puncture, 81, 82  
 Baffling symptoms, period of, 48, 64  
 Barometer, changes in relation to disease, 129  
 Bath, treatment by warm, 73  
 Bedclothes, disinfection of, 85  
 Bed sores, prevention of, 85  
 Belfast epidemic, 9  
 Biot's breathing, in acute fatal type, 45  
 " " in posterior basic meningitis, 60  
 Bismuth, for vomiting, 87  
 Bladder, necessity for care of, 86  
 Blindness, in posterior basic meningitis, 60, 104  
 " as sequel in adults, 70  
 Blisters, in earlier methods of treatment, 72  
 Blood, meningococcus in, 104  
 " agar, best medium for meningococcus, 149  
 " cultures, 105, 117  
 " pressure, changes during puncture, 34, 110  
 " " " serum injection, 77, 79, 110  
 Brain, anatomy of membranes of, 92  
 Brandy, in treatment, 86  
 Breathing, Biot's, in acute fatal type, 45  
 " " in posterior basic meningitis, 60  
 " cerebral, 18  
 " " in posterior basic meningitis, 60  
 " Cheyne-Stokes, 18  
 " " in acute fatal type, 46  
 " " in fulminating type, 42  
 Bromidia for sleeplessness, 87  
 Bronchitis, 26  
 Broncho-pneumonia, 26  
 " " in sub-acute type, 101
- Cape Town, fourth epidemic period in, 8  
 Capsules, around meningococci, 148  
 Carphology, in acute stage, 15  
 " in hydrocephalus, 56  
 " value in prognosis, 67  
 Carriers, definition of, 121  
 " discovery of, 132  
 " examination of throat of, 137  
 " importance of, in propagating disease, 3, 11  
 " in normal communities, 120  
 " temporary and prolonged, 136  
 " test for, 165  
 " variations in numbers of, 120  
 Cases, meningococcus in throat of, 124  
 Catarrh, naso-pharyngeal, 26  
 Catarrhal stage, 122  
 Causative agent, 90  
 Cellular changes in cerebro-spinal fluid, 112  
 Cerebral abscess, differential diagnosis of, 38  
 " breathing, 18  
 " " in posterior basic meningitis, 60  
 Cerebro-spinal fluid, alteration of chemical constituents of, 111

*General Index*

209

- Cerebro-spinal fluid, at onset, prognostic value of, 60  
 " " causes of increased pressure in, 103  
 " " cellular changes in, 112  
 " " circulation of, 96, 103  
 " " complete evacuation desirable, 81  
 " " differential count of cells in, 113  
 " " importance of study of, 108  
 " " in acute fatal type, 46  
 " " " type with recovery, 48  
 " " in influenza, 35  
 " " in suppurative type, 51  
 " " in tubercular meningitis, 37  
 " " increase in sub-acute type, 100  
 " " " of albumen in, 112  
 " " incubation of, 114  
 " " normal, 108  
 " " reducing substance in, 109  
 " " unrelieved tension of, causing sequelae, 71  
 " " yellow, 111  
 Chains, false, of gram-negative cocci, 141  
 Chemical constituents of cerebro-spinal fluid, 108  
 " " " alterations in, 111  
 Cheyne-Stokes " breathing, 18  
 " " in acute fatal type, 46  
 " " in fulminating type, 42  
 Children, chief incidence among, 128  
 Choroid plexus, secretory source of cerebro-spinal fluid, 96  
 Chronic meningitis, 56  
 " types, 50  
 " " intermittent form, 67  
 " " morbid anatomy of, 101  
 Circulation of cerebro-spinal fluid, 96  
 Cisternae of brain, anatomy of, 93  
 Classification, by agglutination reactions, 147  
 " of Elser and Huntoon, 147  
 " of gram-negative cocci, 144  
 Climate, influence of, 11  
 Clot, gelatinous, in cerebro-spinal fluid, 112  
 Clothing, effect of shortage of, 126  
 " spread of disease by, 130  
 Cold incubator test, at 23° C., 146, 152, 158  
 Coliform organism, with colony like meningococcus, 144  
 Colony. appearances of, of gram-negative cocci, 143  
 " of meningococcus, 151  
 Coma, headache replaced by, 14  
 " in acute stage, 15  
 " " fatal type, 45, 46  
 " " type with recovery, 48  
 " in fulminating type, 41  
 " on third day, 65  
 Complement fixation of patient's serum, 107  
 " " tests to differentiate meningococcus, 167  
 Complications, rarity of, in adults, 103  
 Compression in acute fatal-type, 46  
 Conditions of epidemic outbreak, 125  
 Congestion of cerebral vessels in acute fatal type, 98  
 " " in fulminating type, 98  
 Conjunctivitis, 24  
 Constipation, 27  
 Contact, definition of, 121  
 " isolation of, 133  
 Contagion, direct, 119, 138  
 Contamination, by gram-negative cocci of air, 142  
 Convalescence, early establishment of, 66

F. &amp; G.

14

210 *General Index*

- Convalescence from other diseases, onset during, 14  
 Convalescents, as carriers, 124  
 Convulsions, at onset of posterior basic meningitis, 59  
 " in acute fatal type, 45, 46  
 " in fulminating type, 41  
 Cord, anatomy of membranes of, 94  
 Corfu, second epidemic period in, 6  
 Corn-starch medium, 150  
 " sugar medium, 160  
 Coryza, onset of acute type preceded by, 47  
 Course of the disease, 64  
 Crisis, in cases with gradual recovery, 51  
 " termination by, 66  
 Cultural characteristics, 91  
 Culture of cerebro-spinal fluid, 115  
 " of meningococcus, 149  
 " " an indication for puncture, 82  
 " " from post-mortem material, 102  
 Cupping, in earlier methods of treatment, 72  
 Curschmann's solution, hypodermic use of, 87  
 Cyanosis, 27  
 " in acute fatal type, 46  
 " in fulminating type, 42  
 " value in prognosis, 67  
 Cystitis in hydrocephalus, 102  
 Dangers of lowering cerebro-spinal pressure, 82  
 " of serum injection, 79  
 " of transport negligible, 85  
 Deafness, 24  
 " in convalescence, 70  
 " in posterior basic meningitis, 61  
 Definition of cerebro-spinal fever, 1  
 Delirium, coexistent with headache, 15  
 " in the acute stage, 14  
 " in acute fatal type, 45  
 " " type with recovery, 47  
 " in fulminating type, 41  
 " in hydrocephalus, 56  
 " maniacal, in acute fatal type, 45  
 " on third day, 65  
 " value in prognosis, 67  
 " tremens, differential diagnosis from, 40  
 " " onset simulating, 15  
 Denmark, second epidemic period in, 6  
 Desiccation, effect on meningococcus, 119, 152  
 Despatch of swabs, uselessness of, 135  
 Diagnosis, 28  
 " differential, 34  
 " " dependent on bacteriology, 91  
 " in the post-mortem room, 102  
 Diarrhoea, at onset, 14, 27  
 Differential count of cells in cerebro-spinal fluid, 113  
 Diplopia, 23  
 Direct infection, 124  
 Discharges, disinfection of, 85  
 " purulent from nose and throat, 26  
 Disinfectants, effect on meningococcus, 153  
 Disinfection of discharges, 85  
 " of linen, etc., 132  
 Disseminated sclerosis simulated by convalescent cases, 23  
 Dosage of serum, 80  
 Drainage normal, re-establishment of, 58  
 " re-establishment, the cause of crisis, 66

*General Index*

211

- Dry tap, 33  
 Drying, effect on meningococcus, 119, 152  
 Dyspnoea, urgent in fulminating cases, 18, 27, 42  
 „ value in prognosis, 67
- Early treatment, importance of, 65  
 East Africa, epidemic in, 11  
 Edinburgh epidemic, 10  
 Emetics in earlier methods of treatment, 72  
 Endocarditis, 27, 104  
 English epidemic of 1915, 10  
 „ Flexner's serum in, 74
- Epidemics, 1  
 „ conditions producing, 125  
 Epidemic periods, 3  
 „ stage of, value in prognosis, 69  
 Erroneous fermentation results, 159, 160  
 Erythema, fugitive, 19  
 „ in acute fatal type, 45
- Evacuation of cerebro-spinal fluid desirable, complete, 81  
 Exacerbations, 67  
 External hydrocephalus, 60  
 Extracellular cocci, importance of, 115  
 „ value in prognosis, 68
- Failure of early forms of treatment, 73  
 „ of serum treatment in 1915, 76  
 Fatigue, influence on susceptibility, 128  
 Feeding, difficulty in, 20  
 „ nasal, 86  
 „ of hydrocephalic cases, 56  
 „ rectal, 86
- Fermentation reactions, characteristic rates of, 146, 158  
 „ of gram-negative cocci, 160  
 „ of meningococcus, 161  
 „ of micrococcus catarrhalis, 162  
 „ use in classification, 144, 158
- Fever, indication for puncture 82  
 „ intermittent in acute type with recovery, 49  
 „ resemblance to ague, 16, 52  
 „ value in prognosis, 67
- Fifth epidemic period, 8  
 Fijian Islands, fourth epidemic period in, 8  
 Film preparations, importance of number of cocci in, 115  
 „ meningococci in, 113  
 „ staining of, 114
- First clinical description, 2  
 „ day of illness, 64  
 „ epidemic wave, 3
- Flaccid paralysis, 23  
 Flexner's serum, 73  
 Fluid culture, growth of meningococcus in, 150  
 Foreign proteid, introduction of, in serum treatment, 77  
 Four groups of Gordon, 165  
 Fourth epidemic period, 8  
 „ ventricle, adhesion of roof of, 58, 102
- France, first epidemic wave in, 4  
 „ second epidemic wave in, 4  
 „ fifth epidemic wave in, 9
- Frequency of serum injections, 81  
 Fulminating type, 41  
 „ microscopical pathology of, 98  
 „ morbid anatomy of, 97  
 „ nature of, 42

14—2

212 *General Index*

- Fulminating type, onset of, 13
- Gee and Barlow's disease, 59
- Gelatinous clot, in cerebro-spinal fluid, 112
- General reaction of body, 105
- General treatment, 85
- Geneva epidemic, 2
- Geographical distribution, 11, 129
- Germany, third epidemic wave in, 7  
 ,, fifth epidemic wave in, 9
- Glasgow epidemic, 10
- Glucose in cerebro-spinal fluid, 109  
 ,, ,, ,, diminution of, 112
- Gonococcal meningitis, doubtful occurrence of, 144
- Gonococcus, characters of, 146  
 ,, differentiation from meningococcus, 144
- Gordon's four groups, 165
- Gram's stain, method, 141
- Gram-negative diplococci, gram-positive forms of, 142  
 ,, ,, of the air, 142  
 ,, ,, the group of, 139
- Gram-positive cocci of Jaeger and Heubner, 142  
 ,, forms in meningococcus cultures, 148  
 ,, ,, of the gram-negative cocci, 142
- Granular staining of meningococcus, 148
- Greece, third epidemic period in, 7
- Group agglutinations, 164
- Grouping of strains, 165
- Haematogenous origin of disease, 153
- Haematuria, 27
- Haemophilia, exclusion of meningeal haemorrhage in, 29
- Haemorrhage, meningeal, differential diagnosis of, 39
- Head, nodding of, 21  
 ,, retraction of, 21  
 ,, ,, absent in fulminating type, 42  
 ,, ,, in acute fatal type, 45  
 ,, ,, ,, type with recovery, 48  
 ,, ,, in hydrocephalus, 56  
 ,, ,, in posterior basic meningitis, 60  
 ,, ,, index of intracranial pressure, 49  
 ,, ,, on third day, 65  
 ,, ,, value in prognosis, 67
- Headache, an indication of increased pressure, 57  
 ,, ,, for puncture, 81, 87  
 ,, at onset, 14  
 ,, co-existent with delirium, 15  
 ,, in acute fatal type, 44  
 ,, ,, type with recovery, 47  
 ,, in convalescence, 70  
 ,, in hydrocephalus, 55  
 ,, intense in fulminating form, 41  
 ,, on first day, 64  
 ,, treatment of, 86
- Heart, little toxic effect on, 154
- Hemiplegia, 23  
 ,, in acute fatal type, 45, 46
- Herpes, 20  
 ,, in acute fatal type, 46  
 ,, ,, type with recovery, 48  
 ,, value in prognosis, 68
- Hexamine, treatment by, 85
- Hirsch's four epidemic periods, 3
- His' medium, 160

*General Index*

213

- History, 1  
 Hydrocephalic cry, in posterior basic meningitis, 60  
 " symptoms, following serum injection, 77  
 Hydrocephalus, 53, 54  
 " absence of cocci in cerebro-spinal fluid of, 103, 116  
 " " pus in, 102  
 " amount of pus in, 111  
 " established in second or third week, 67  
 " external, 60  
 " in posterior basic meningitis, 59  
 " morbid anatomy of, 101  
 " with acute stage wrongly diagnosed, 59  
 " " recovery, 57  
 Hydrocyanic acid for vomiting, 87  
 Hyperaesthesia, 23  
 Hypersecretion of choroid plexuses, 97  
 Hypophysial gland, as path of infection, 105  
  
 Ice to the head in treatment, 72, 78  
 Iceland, second epidemic period in, 6  
 Imbeciles, 25  
 Improvement, early signs of, 66  
 Inagglutinable strains, 163  
 Incubation of cerebro-spinal fluid, 114  
 " period, 62  
 Incubator, travelling, 135  
 India, outbreaks in, 11  
 Infection, direct, 124  
 " distribution of, in meninges, 102  
 " path of, 104  
 " site of, 100, 117  
 Influenza, cerebro-spinal fluid in, 35  
 " differential diagnosis from, 34  
 " increased cerebro-spinal pressure in, 110  
 Inhibition of growth of meningococci, 151, 152  
 Inoculation, subdural in animals, 153  
 Intermittent carriers, 136  
 Intracellular position of gram-negative cocci, 143  
 Intracranial pressure, increase in acute fatal type, 45, 46  
 " " " type with recovery, 48  
 " " sudden rise at onset, 14  
 Intramuscular injection of serum, 83  
 Intrathecal serum administration of Flexner, 73  
 Intravenous injection of serum, 83  
 Intraventricular puncture in hydrocephalus, 117  
 Iodide of potassium, treatment by, 73, 86  
 Ireland, third epidemic period in, 7  
 Iritis, 24  
 Iridochoroiditis, 24  
 Iridocyclitis, 24, 104  
 Irregularities in size and staining of meningococcus, 140  
 Isolation of contacts, 133  
 " of patients, 130  
 " of prolonged carriers, 136  
 Italy, second epidemic period in, 5  
  
 Jochmann's serum, 73  
  
 Keen's operation to drain ventricle, 89  
 Keratitis, 24  
 Kernig's sign, 22  
 " " importance of, on second day, 64  
 " " in acute fatal type, 45  
 " " type with recovery, 48



214 *General Index*

- Kernig's sign, in cases of gradual recovery, 52  
 " " in fulminating type, 42  
 " " in posterior basic meningitis, 60  
 " " normal in infants, 22  
 " " the indication of meningeal infection, 54  
 " " value in diagnosis, 29  
 Knee jerks, 23  
 Kocher's operation for draining ventricle, 89  
 Landes, the, origin of second epidemic period in, 4  
 Large and small colonies of meningococci, 151  
 Lateral sinus thrombosis, differential diagnosis of, 39  
 Lateral ventricle, operations to drain, 88  
 Leeches in treatment, 72, 87  
 Leucocytosis, 105  
 London, fourth epidemic period in, 8  
 Lumbar puncture, anatomical points in, 95  
 " " general anaesthetic in, 30  
 " " in acute fatal type, 46  
 " " " type with recovery, 48  
 " " in adynamic state, 55  
 " " in cases of gradual recovery, 52  
 " " in hydrocephalus, 55, 103  
 " " in suppurative type, 50  
 " " indicated by Kernig's sign, 23  
 " " introduction of, 28  
 " " lateral operation for, 32  
 " " operation of, 29  
 " " position of patient for, 32  
 " " remote effects of, 83  
 " " symptoms justifying, 28  
 " " fluid, sudden diminution in hydrocephalus, 57  
 Lysis, termination by, 66  
 MacEwen's sign, 56  
 " " in posterior basic meningitis, 60  
 Macular rash, 18  
 " " in acute fatal type, 36  
 " " " type with recovery, 48  
 " " value in prognosis, 68  
 Manometer, for cerebro-spinal fluid, 34  
 Measles, differential diagnosis from, 36  
 Medico-legal aspect of fulminating case, 42  
 Medulla, pressure on, in hydrocephalus, 56  
 Membranes of brain, anatomy of, 92  
 " " of cord, anatomy of, 94  
 Meningitis, gonococcal, doubtful occurrence of, 144  
 " " pneumococcal, differential diagnosis from, 38  
 " " purulent, differential diagnosis from, 38  
 " " staphylococcal, differential diagnosis from, 38  
 " " streptococcal, differential diagnosis from, 38  
 " " tubercular, cerebro-spinal fluid of, 37  
 " " differential diagnosis from, 37  
 Meningococcus, a group of related organisms, 107, 140  
 " " characters of, 146, 148  
 " " discovery of, 28  
 " " in film preparations, 113  
 " " sugar reactions of, 161  
 Mental condition, following cerebro-spinal fever, 25  
 Mental depression in isolated carriers, 136  
 Mental enfeeblement, 58  
 Mercury in treatment, 86  
 Metachromatic granules in meningococcus, 148  
 Micrococcus catarrhalis, characters of, 146, 157

*General Index*

215

- Micrococcus catarrhalis, in posterior pharynx, 140  
 " " sugar reactions of, 162  
 " flavus I characters of, 145, 156  
 " " II " 145, 156  
 " " III " 146, 157  
 " pharyngis siccus, characters of, 145, 155  
 Microscopical pathology of acute fatal type, 99  
 " " of fulminating type, 98  
 Micturition, difficulty of, in early stage, 20  
 Mild cases, absence of cocci in cerebro-spinal fluid of, 116  
 Milk, growth of meningococcus in, 151  
 Monoplegia, 23  
 Morbid anatomy of acute fatal type, 98  
 " " of chronic type with hydrocephalus, 101  
 " " of fulminating type, 97  
 " " of palsy in children, 104  
 " " of sub-acute type, 100  
 " " of suppurative type, 100  
 Morphia for headache, 86  
 " " vomiting, 87  
 " to diminish risk to attendants, 132  
 Morphology of the gram-negative cocci, 140  
 Mortality, in posterior basic meningitis, 61  
 " severe in earlier epidemics, 72  
 Mumps, differential diagnosis from, 36  
 Muscles of neck, stiffness at onset, 21  
 " " " on second day, 64  
 Muscular rigidity at onset, 21  
 " " in fulminating type, 42  
 " " in hydrocephalus, 56  
 " " on third day, 65  
 Myelitis, acute, differential diagnosis from, 40  
 Myocarditis, 27
- Nasal cavity, connection with sub-arachnoid space, 94, 105  
 " douche, 137  
 " feeding, 86  
 " irrigation, necessity of, 185  
 " " " " for attendants, 132  
 Naso-pharynx, meningococcus in, 119  
 " " of cases, meningococcus in, 124  
 Neck, muscles of, stiffness at onset, 21  
 " " " on second day, 64  
 Needle, Barker's, for lumbar puncture, 31  
 Nerve, facial, involvement of, 23  
 " hypoglossal, involvement of, 23  
 " cells, condition of, in acute fatal type, 99  
 Neutral red as indicator, 159  
 New York, epidemic of 1905 in, 125  
 Nomenclature, 1, 90  
 Normal communities, carriers in, 120  
 Nourishment in acute stages, 85  
 Number of cocci in films, effect of serum on, 115  
 " " " importance of, 115  
 " of lumbar punctures necessary, 82  
 Nursing, precautions in, 132  
 Nutrition, general influence on infection, 127  
 Nutrose agar, best for plates, 149  
 Nystagmus, 23
- Occlusion of sub-arachnoid space, 109  
 Odyssey of 18th Light Infantry, 5  
 Olfactory lobes, in acute fatal type, 98  
 " nerves, as path of infection, 104

216 *General Index*

- Onset, 64  
 „ in acute fatal type, 44  
 „ „ type with recovery, 47  
 „ in fulminating type, 41  
 „ of hydrocephalus, 55  
 „ of posterior basic meningitis, 59  
 „ suddenness of, 13  
 Operations, for hydrocephalus, 87  
 Ophthalmia, purulent, 24  
 Opisthotonos, 22  
 „ in posterior basic meningitis, 59, 60  
 Opium in earlier methods of treatment, 73  
 Oposonic index of patient, 106  
 „ tests for differentiation of meningococcus, 167  
 Optic atrophy, 24  
 „ „ after soamin, 85  
 „ „ rarity in posterior basic meningitis, 60  
 „ discs, in hydrocephalus, 56  
 „ lobes, pressure on, in posterior basic meningitis, 60  
 „ neuritis, 24  
 „ „ in posterior basic meningitis, 60  
 Otitis media, 25  
 Overcrowding. effect on individual, 126  
 „ importance of, 12  
 Pacchionian bodies, absorption through, 96  
 „ „ anatomy of, 92  
 Pain in back, as sequela, 58  
 „ „ and legs in convalescence, 71  
 „ „ „ thighs at onset, 20  
 Palsy, 23  
 „ as sequela, 58  
 „ in children, morbid anatomy of, 104  
 „ in convalescence, 70  
 „ treatment of, 87  
 Panophthalmitis, 24, 104  
 Para-meningococcus, characters of, 146  
 „ differentiation of, 166  
 „ sugar reactions of, 161  
 Path of infection, 104  
 Pathogenicity of meningococcus to animals, 153  
 Pathology, 90  
 Patients' serum, agglutinative power of, 78  
 „ „ intrathecal injection of, 78  
 Perivascular haemorrhage in acute fatal case, 1  
 „ infiltration of brain, 99  
 „ „ of cord, 99  
 Permanent carriers, 136  
 Petechial fevers, possible identity of, 2  
 „ rash, 19  
 „ „ in acute fatal type, 45  
 „ „ in fulminating type, 42  
 „ „ value in prognosis, 67  
 Pharyngitis, differential diagnosis from, 36  
 Pharynx, posterior, meningococcus in, 104  
 Photophobia, as an early symptom, 14  
 Physical conditions, importance in culture, 150  
 Pigmentation of cerebro-spinal fluid, 112  
 „ punctiform, of colonies of gram-negative cocci, 143  
 „ „ of meningococcus colony, 150  
 Plague spot, 20  
 Plantar reflex, 23  
 Plate culture, investigation of, 167  
 „ „ method of sowing swab on, 134

*General Index*

217

- Plate holder, sterilizable, 135  
 Pleurisy, 27  
 Pneumococcal meningitis, 38  
 Pneumococcus, terminal infection by, 38  
 Pneumonia, differential diagnosis from, 35  
 „ increased cerebro-spinal pressure in, 110  
 „ lobar, 27  
 Poisoning, suspicion of, in fulminating cases, 42  
 Polioencephalitis, differential diagnosis from, 40  
 Poliomyelitis, differential diagnosis from, 40  
 „ not differentiated in early epidemics, 71  
 Portugal, fifth epidemic wave in, 9  
 Position of patient for lumbar puncture, 32  
 Posterior basic meningitis, 59  
 „ „ „ a disease of infants, 128  
 „ „ „ chronic course of, 60, 61  
 „ „ „ identity with chronic type, 103  
 „ „ „ recognition in fifth period, 8  
 „ „ „ usual form in England, 91  
 Posterior pharynx, meningococcus in, 104  
 Precipitin reactions, 167  
 Predisposing causes of infection, 125  
 Pressure, cerebro-spinal, increase, causes of, 103  
 „ „ „ in the disease, 109  
 „ „ „ indicated by headache, 57  
 „ „ „ other diseases, 110  
 „ „ normal, 108  
 „ „ on medulla in hydrocephalus, 56  
 „ „ replacement of, in serum treatment, 77  
 Preventive measures, 130  
 Previous illness, a predisposing cause, 126  
 Prognosis, 67  
 „ remote, 70  
 Prolonged carriers, 121  
 „ „ isolation of, 136  
 Prostration, prevention of, 87  
 Proteolysis, by meningococcus, 162  
 Pseudo-meningococcus, 165  
 „ „ carriers, 168  
 Pulse, 16  
 „ during serum injection, 79  
 „ in acute fatal type, 44  
 „ „ type with recovery, 47  
 „ in fulminating form, 42  
 „ in hydrocephalus, 55  
 „ irregularity of, 17  
 „ respiration ratio, 18  
 „ running, 17  
 „ slow with high temperature at onset, 17  
 „ value in prognosis, 67  
 Pupils, condition of, 24  
 Purpuric rash, 19  
 „ „ in fulminating type, 42  
 „ „ value in prognosis, 67  
 Purulent meningitis early in disease, 43  
 Pus, amount in cerebro-spinal fluid, 111  
 Pyelitis, 27  
 Pyrocatechin in cerebro-spinal fluid, 109  
 Rainfall, in relation to the disease, 129  
 Rash, serum, 80  
 „ varieties of, 18  
 Ratio, pulse-respiration, 18  
 Rectal feeding, 86

218 *General Index*

- Reducing substance in cerebro-spinal fluid, 109  
 Reflexes, abdominal, 23  
 „ plantar, 23  
 „ superficial, 23  
 Relapse, 53  
 Relapsing cases, 58  
 Relief of symptoms after puncture, 110  
 Remote prognosis, 70  
 Replacement of pressure in serum treatment, 77  
 Respiration, 18  
 „ Biot's, 18  
 „ during serum injection, 79  
 „ in acute fatal type, 45  
 „ „ type with recovery, 47  
 „ in fulminating type, 42  
 Respiratory failure, 18  
 „ „ due to increased pressure, 110  
 „ „ in acute fatal type, 46  
 Restlessness, in the acute stage, 15  
 „ value in prognosis, 67  
 Retention of urine in acute fatal type, 45  
 „ „ „ type with recovery, 48  
 „ „ in early stage, 20  
 „ „ in fulminating type, 42  
 „ „ in hydrocephalus, 55  
 „ „ value in diagnosis, 29  
 Retraction of head, 21  
 „ „ absent in fulminating type, 42  
 „ „ in acute fatal type, 45  
 „ „ „ type with recovery, 48  
 „ „ in hydrocephalus, 56  
 „ „ in posterior basic meningitis, 60  
 „ „ index of intracranial pressure, 49  
 „ „ on third day, 65  
 „ „ value in prognosis, 67  
 Rigidity, muscular, at onset, 21  
 „ „ in fulminating type, 42  
 „ „ in hydrocephalus, 56  
 „ „ in posterior basic meningitis, 60  
 „ „ on third day, 65  
 Rigor at onset, 13, 64  
 „ in acute fatal type, 44  
 „ „ type with recovery, 47  
 „ in fulminating type, 41  
 „ in hydrocephalus, 55  
 Russia, third epidemic period in, 7  
 Scarlet fever, differential diagnosis from, 36  
 Screaming at onset of posterior basic meningitis, 59  
 Seaport as starting place in an epidemic, 11  
 Seasonal distribution of disease, 129  
 „ weather conditions, effect on susceptibility, 126  
 Second day of illness, 64  
 „ epidemic period, 4  
 Septicaemia in early stage, 43, 92  
 „ initial, as path of infection, 105  
 „ meningococcal, 42, 104, 117  
 „ „ post-mortem appearances in, 97  
 Septicaemic stage, 122  
 Sequelae of hydrocephalus, 58  
 „ rarity of, 71  
 Serum, dosage, 80  
 „ injections, frequency of, 81  
 „ intramuscular injection of, 83

*General Index*

219

- Serum, intravenous injection of, 83  
 „ introduction to ventricles, 88  
 „ methods of injection, 78  
 „ of patient, bactericidal power of, 107  
 „ „ intrathecal injection of, 52, 107  
 „ rash, 80  
 „ subcutaneous injection of, 83  
 „ treatment, effect on cocci, 115  
 „ „ indications for suspension of, 81  
 Shifting population, importance of, 12  
 „ „ in epidemics, 125  
 Shock, during serum injection, 80  
 „ from lumbar puncture, 82  
 Sicily, second epidemic period in, 6  
 Sinuses of nose as harbours for meningococcus, 122  
 Site of meningococcal infection, 100  
 Size of gram-negative cocci, variations in, 140  
 Small-pox, differential diagnosis from, 36  
 Soamin, treatment by, 84  
 Sore throat, onset preceded by, 47  
 Source of cocci in cerebro-spinal fluid, 117  
 Specific agglutinins, 164  
 „ fevers, cerebro-spinal fever a sequel of, 36  
 Sphenoidal sinuses as harbours of meningococcus, 122  
 „ „ as path of infection, 104  
 Sphincters, involvement of, 20  
 Sporadic appearance of disease, 123  
 „ cases, 1  
 Spread of disease by prolonged carriers, 121  
 „ „ method of, 130  
 Spreading of plate cultures, 135  
 Spring, cerebro-spinal fever a disease of, 129  
 Stab culture, advantages of, 150  
 Stage of epidemic, value in prognosis, 69  
 Staining after macular rash, 19  
 „ of films from cerebro-spinal fluid, 114  
 „ of gram-negative cocci, 140  
 Staphylococcal meningitis, 38  
 Staphylococci, gram-negative cocci belonging to, 141  
 Starch medium, 150  
 „ sugar medium, 160  
 Sterilizable plate-holder, 135  
 Sterilization of fluid media, difficulties of, 158  
 Stippling of meningococcus colony, 150  
 Strabismus, 23  
 Streptococcal meningitis, 38  
 Streptococci with colonies like meningococcus, 144  
 Strychnine, hypodermic use of, 87  
 Stupor in acute stages, 15  
 Sub-acute types, 50  
 „ „ morbid anatomy of, 100  
 Sub-arachnoid space, anatomy of, 92  
 „ „ obstruction of, in hydrocephalus, 57  
 „ „ of cord, 95  
 „ „ operation to drain, 89  
 „ „ prolongations into nose, 94, 105  
 Sub-culture, essentials for, 150  
 „ necessity of, from sugar media, 161  
 Subcutaneous injection of saline, 87  
 „ „ of serum, 76, 83  
 Sub-dural inoculation in animals, 153  
 Subsultus tendinum in acute stages, 15  
 „ „ in fulminating type, 42  
 „ „ in hydrocephalus, 56

220 *General Index*

- Sugar, in cerebro-spinal fluid, 109  
 „ „ „ diminution of, 112  
 „ media, composition of, 159  
 „ „ difficulty of sterilizing, 158  
 „ „ solid, 159  
 „ reactions, characteristic rates of, 146, 158  
 „ „ of gram-negative cocci, 160  
 „ „ of meningococcus, 161  
 „ „ of micrococcus catarrhalis, 162  
 „ „ use in classification, 144, 158  
 Summer, rapid decline of epidemic in, 129  
 Sunlight, effect on meningococcus, 152  
 „ gram-positive forms produced by, 143  
 Superficial reflexes, 23  
 Suppurative type, 50  
 „ „ amount of pus in, 111  
 „ „ course of, 66  
 „ „ morbid anatomy of, 100  
 Suprarenal capsules, haemorrhagic, 98  
 Surgical procedures in posterior basic meningitis, 61  
 Susceptibility of individual, changes in, 125  
 Suspension of serum treatment, indications for, 81  
 Swab, convenient form of, 134  
 „ method of taking, 133  
 „ uselessness of despatch of, 135  
 „ West's covered, 133  
 Swallow, inability to, 20  
 „ „ in acute fatal type, 46  
 „ „ „ type with recovery, 48  
 Sweating in acute fatal type, 46  
 „ in fulminating type, 42  
 Sweden, third epidemic period in, 6  
 Symptoms, 13  
 „ aggravation of, following serum injection, 77  
 „ „ on third day, 46  
 „ diminution of, on second day, 45  
 „ justifying lumbar puncture, 28  
 „ relief of, after lumbar puncture, 110  
 Tache cérébrale, 24  
 Tapping the ventricles, operation for, 88  
 Temperature, course of, in the disease, 16  
 „ daily variations in atmospheric, 129  
 „ in acute fatal type, 44  
 „ „ type with recovery, 47  
 „ in fulminating type, 42  
 „ in hydrocephalus, 55  
 Temperatures of growth of meningococcus, 152  
 Temporary carriers, 121, 136  
 „ „ treatment of, 136  
 „ improvement on second day, 64  
 Tenderness in muscles of neck at onset, 21  
 „ „ „ on second day, 64  
 Terminal invasion in hydrocephalus, 57  
 „ in posterior basic meningitis, 61  
 Termination by crisis, 66  
 „ by lysis, 66  
 Tetanus, differential diagnosis from, 37  
 Tetrads, meningococci in, 143  
 Theca, adhesion of, in hydrocephalus, 102  
 Third day of illness, 65  
 „ epidemic period, 6  
 Throat, local treatment of, 137  
 „ normal, meningococcus in, 91

*General Index*

221

- Throats of cases, meningococcus in, 124  
 " of nurses, examination of, 132  
 Thrombosis of venae Galeni as cause of hydrocephalus, 59  
 Tonsillitis, differential diagnosis from, 36  
 Toxaemia, in acute fatal type, 45  
 " in fulminating type, 41  
 Toxins of meningococcus, 154  
 Transient carriers, 121, 136  
 " " treatment of, 136  
 Transport, dangers of, negligible, 85  
 Transvaal, epidemic, in, 11  
 Travelling incubator, 135  
 Treatment, 72  
 " by lumbar puncture alone, 75, 76, 81  
 " failure of early forms of, 73  
 " " of serum in 1915, 76  
 " general, 85  
 " of cases, precautions in, 130  
 " prognostic value of date of, 68, 78  
 Trismus, 22  
 Troops, virulence of epidemics among, 128  
 Typhoid fever, differential diagnosis from, 35  
 Typhus, differential diagnosis from, 36
- Unconsciousness at onset, 13  
 " " value in prognosis, 67  
 United Kingdom, second epidemic wave in, 6  
 " " fifth " " 9  
 United States, first " " 3  
 " " second " " 6  
 " " third " " 7  
 " " fifth " " 9
- Urine, disinfection of, 132  
 " incontinence of, 20  
 " " in acute fatal type, 46  
 " presence of meningococcus in, 92, 118  
 " retention of, in acute fatal type, 46  
 " " " type with recovery, 48  
 " " in early stage, 20  
 " " in fulminating type, 42  
 " " in hydrocephalus, 55  
 " " value in diagnosis, 29  
 Urotropin, 86
- Vaccination, protective, 84  
 Vaccine treatment, 83  
 Vaso-motor changes, 24  
 Vedder's medium, 150  
 Veins of eye, fullness of, 24  
 Venesection in earlier methods of treatment, 72  
 Ventilation, necessity of free, 85  
 " " " in treatment, 131  
 Ventricles, cerebral, in acute fatal type, 99  
 " " in hydrocephalus, 101  
 " " operation for tapping, 88
- Vibices, 19  
 Vines' sugar medium, 159  
 Virulence, high among troops, 128  
 " low, under normal conditions, 91  
 Vitality not corresponding to staining power, 141  
 " of gram-negative cocci, 143  
 " of meningococcus, 151  
 " on swabs, 136  
 Vomiting at onset, 13, 14



222 *General Index*

- Vomiting in acute fatal type, 44  
    "      "      " type with recovery, 47  
    "      in fulminating type, 41  
    "      in hydrocephalus, 56  
    "      in posterior basic meningitis, 60  
    "      indication for puncture, 82  
    "      on first day, 64
- Wasting, in acute stage, 25  
    "      in hydrocephalus, 56, 102  
    "      in posterior basic meningitis, 60
- Weather conditions, seasonal, effect on susceptibility, 126
- West Africa, epidemic in, 10
- West's covered swab, 133
- Winter, cerebro-spinal fever a disease of, 129
- Yellow cerebro-spinal fluid, 111